Check for updates



# Moral distress experienced by non-Western nurses: An integrative review

Nursing Ethics 2020, Vol. 27(3) 778–795 © The Author(s) 2019 Article reuse guidelines: sagepub.com/journals-permissions 10.1177/0969733019880241 journals.sagepub.com/home/nej

**\$**SAGE

Chuleeporn Prompahakul 🗈

Prince of Songkla University, Thailand

Elizabeth G Epstein

University of Virginia, USA

#### **Abstract**

**Background:** Moral distress has been identified as a significant issue in nursing practice for many decades. However, most studies have involved American nurses or Western medicine settings. Cultural differences between Western and non-Western countries might influence the experience of moral distress. Therefore, the literature regarding moral distress experiences among non-Western nurses is in need of review.

**Aim:** The aim of this integrative review was to identify, describe, and synthesize previous primary studies on moral distress experienced by non-Western nurses.

**Review method:** Whittemore and Knafl's integrative review methodology was used to structure and conduct the review of the literature.

**Research context and data sources:** Key relevant health databases included the Ovid MEDLINE, CINAHL, Web of Science, and Google Scholar databases. Two relevant journals, Nursing Ethics and Bioethics, were manually searched.

**Ethical consideration:** We have considered and respected ethical conduct when performing a literature review, respecting authorship and referencing sources.

**Findings:** A total of 17 primary studies published between 1999 and 2019 were appraised. There was an inconsistency with regard to moral distress levels and its relationship with demographic variables. The most commonly cited clinical causes of moral distress were providing futile care for end-of-life patients. Unit/team constraints (poor collaboration and communication, working with incompetent colleagues, witnessing practice errors, and professional hierarchy) and organizational constraints (limited resources, excessive administrative work, conflict within hospital policy, and perceived lack of support by administrators) were identified as moral distress's stimulators. Negative impacts on nurses' physical, psychological, and spiritual well-being were also reported.

**Conclusion:** Further research is needed to investigate moral distress among other healthcare professions which may further build understanding. More importantly, interventions to address moral distress need to be developed and tested.

## **Keywords**

Ethics, literature, moral distress, non-American, non-Western, nursing, review

Corresponding author: Chuleeporn Prompahakul, Faculty of Nursing, Prince of Songkla University, Hat Yai 90110, Songkhla, Thailand.

Emails: cp3bx@virginia.edu; chuleeporn.p@psu.ac.th

## Introduction

Moral distress has been identified as a significant problem in nursing practice for many decades. The American philosopher Andrew Jameton<sup>1</sup> initially characterized moral distress as a phenomenon in nursing and defined it as occurring "when one knows the right thing to do, but institutional constraints make it nearly impossible to pursue the right course of action." He also distinguished moral distress from moral dilemmas, describing a moral dilemma as not knowing the correct moral choice and the need to make the decision between two or more justifiable choices. Moral distress, he argued, is knowing the correct course of action but not being able to pursue it.<sup>2</sup> In 1987, Wilkinson<sup>3</sup> studied moral distress among staff nurses and extended the definition of moral distress to include "...a negative state of psychological disequilibrium." While psychological or emotional distress or disequilibrium is always present in morally distressing situations, we now understand that what sets moral distress apart is the experience of being complicit in carrying out acts one believes to be wrong.

Various empirical studies have evaluated moral distress using the original Moral Distress Scale (MDS), the Moral Distress Scale–Revised (MDS-R), or modifications of these scales. Developed by Corley et al., the MDS was designed to measure moral distress among intensive care nurses. The MDS was modified for many studies in both American and non-American countries. Hamric et al. revised Corley's MDS to the MDS-R to be more applicable to all acute care settings and to all healthcare providers. In 2019, the MDS-R was significantly updated, revised, and tested at two institutions. This scale, the Measure of Moral Distress for Healthcare Professionals (MMD-HP) is usable for all healthcare providers in acute and critical care as well as long-term acute care settings. The MDS, MDS-R, and MMD-HP are Likert scale instruments which capture the elements of frequency and intensity of morally distressing situations.

Previous literature reviews of qualitative and quantitative evidence about moral distress among nurses have been presented. The qualitative evidence reveals that nurses experience moral distress when they fail to advocate for patients based on their professional goals and values. Nurses express moral distress through biopsychosocial responses (such as anger, depression, and stress reaction), emotional withdrawal, powerlessness, and leaving the institution which is the deleterious effect on the healthcare system when nurses experience moral distress. The results from the quantitative evidence found that futile care and negative ethical climates are the major sources of moral distress. It also amplified the qualitative review that there are sociodemographic variables that could influence moral distress experience in nurses such as age, years of nursing experience, gender, education, and units; however, the results are inconclusive.

Recently, a three-level structure of root causes of moral distress has emerged from current empirical studies as follows: clinical situations, unit/team problems, and system/organization problems.<sup>13</sup> Examples of clinical situations are continuing life support even though it is not in the best interest of the patient and initiating lifesaving actions that only prolong death.<sup>9,14–18</sup> Examples of unit/team problems include poor team communication or collaboration that lead to inconsistency in goals and plans of care.<sup>9,18,19</sup> Examples of system/organization problems are inappropriate use of resources, chronic and critical low staffing, and policies that negatively impact care delivery.<sup>9,14,18</sup>

Although the literature reviews on moral distress in nurses have been systematical, it can be seen that in the past 10–20 years, the majority of moral distress studies in nurses were conducted in Western countries such as North America, Canada, Europe, and Australia. Therefore, the conclusion of moral distress experienced by nurses was predominately drawn from studies in the Western settings. According to the statistics of nurse density per 10,000 population, the Western countries have more than 70 nurses, whereas the non-Western countries such as Malawi, Uganda, Iran, India, China, and South Africa have approximately 35 nurses or less. This could impact the experiences of moral distress among nurses in non-Western countries. In addition, cultural differences between Western and non-Western countries might influence the experience of moral distress. Since the significance of cultural differences, healthcare technology, and

the nurse density between Western and non-Western countries, the results of previous reviews would limit to represent the experience of moral distress in non-Western nurses. Furthermore, this review includes both quantitative and qualitative research studies which provide statistical evidences, diverse, meaningful, and more depth of moral distress in nurses. Therefore, this integrative literature review regarding moral distress experiences, contributing factors, and consequences of moral distress among non-Western nurses that allows for the inclusion of diverse methodologies are in need of review.

#### Aim

The aim of this integrative review was to identify, describe, and synthesize previous primary studies on moral distress experienced by non-Western nurses.

# Study questions

The review aimed to respond to the following research questions:

- 1. What is the moral distress experience as perceived by non-Western nurses?
- 2. What factors contribute to moral distress among non-Western nurses?
- 3. What are the outcomes of moral distress on non-Western nurses?

#### **Methods**

## Design

An integrative review based on Whittemore and Knafl's<sup>22</sup> updated methodology was used to structure and conduct the review of the literature, as this is the only approach that allows for the simultaneous inclusion of diverse methodologies in order to develop a comprehensive understanding of the phenomena of moral distress experienced by non-Western nurses. The updated integrative review framework was established to enhance its rigor and accuracy and reduce the bias caused by the complexity inherent in combining various methodologies.<sup>22</sup> This framework is widely cited in the nursing literature and was chosen based on its explicit description of the integrative review process and applicability of this process to the topic under investigation.<sup>23</sup>

Whittemore and Knafl<sup>22</sup> defined five stages of review, beginning with the identification of a specified review of purpose and variables of interest, which will facilitate the ability to extract appropriate data from the primary source. In this case, the specific aims are to investigate the experiences, factors, and outcomes of moral distress perceived by non-Western nurses. After the identification of purpose and variables, a well-defined literature search strategy is conducted to gather the maximum number of eligible primary sources, using both electronic databases and hand searching. The next stage is evaluating the quality of primary sources which vary depending on the sampling frame. After data evaluation, data analysis is conducted to extract data from primary sources. The data are ordered, coded, categorized, compared, and summarized based on the purposes and questions of the review. Finally, the implication and the limitation of the studies are presented. The following sections will describe the process used for this review, and the steps taken to ensure fidelity to Whittemore and Knafl's method.<sup>22</sup>

## Search process

The search process included key relevant health databases as follows: the Ovid MEDLINE, CINAHL, Web of Science, and Google Scholar databases. In addition, manual searches were conducted in order to avoid

search bias and to maximize the number of relevant studies; two journals, *Nursing Ethics* and *Bioethics*, were included in the manual searches because of their close links to the research topic. The search employed keywords and MeSH terms, such as nurses, nurs\*, and moral distress.

Primary research published between 1999 and 2019 that included qualitative, quantitative, or mixed methods methodology written in English that examined nurses' experiences, contributing factors, and outcomes related to moral distress were considered for this review. Articles were excluded if other health-care professionals were included. Because the aim of this review has focused on non-Western populations, studies conducted in the United States, Canada, Australia, New Zealand, and other European countries or countries that have nurse density (per 10,000 populations) higher than 50 were excluded. In addition, case studies, case series, commentaries, expert opinions, and editorials were not accepted for analysis.

### Search outcomes

The initial search from the 4 databases and 2 specific journals yielded 386 articles. The screening process was adapted from the process outlined in the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement for reporting of systematic reviews. The retrieved articles were managed by Ref-Works (http://www.refworks.com/), an online reference management software tool. Duplicates (n = 179) were eliminated. After applying the inclusion criteria to the titles and abstracts, 207 articles were selected for the first screening and 156 articles were removed because the studies were conducted in countries that did not meet nurse density criteria or were expert opinions or literature reviews. Finally, 51 studies were carefully reviewed, and their contents were analyzed and evaluated from the viewpoint of the study questions. After completing this evaluation, 16 articles were included and analyzed for this review (see Figure 1).

# Quality appraisal

The included studies were critically appraised prior to being included in the analysis. Evaluating quality of primary sources in the integrative review method where diverse primary sources are included increases the complexity, and there is no gold standard for calculating quality scores. To critically appraise each article, the authors used standardized critical appraisal instruments from the Joanna Briggs Institute, specifically the Critical Appraisal Checklist for Analytical Cross-Sectional Studies and Critical Appraisal Checklist for Qualitative Research. The checklist for cross-sectional studies consisted of 8 questions and 10 questions for qualitative research. Both checklists answered with a "yes" or "no." In this study, the appraisal scores of cross-sectional studies range from 5 to 8 and 8 to 10 for qualitative studies, which are considered as good quality.

# Data abstraction and synthesis

All 16 studies were analyzed sequentially and the following elements were extracted: author and year, country, sample and setting, purpose, research design, measurement, and results based on the perspective of study questions. Matrix tables were designed to present the relevant extracted data divided into two groups based on design of the evidence—quantitative and qualitative—and then arranged by year (Tables 1 and 2). The data displays of primary sources were compared in order to identify patterns, themes, or relationships. Finally, the synthesis of important elements or conclusion of each study question is presented in the "Results and discussion" section.

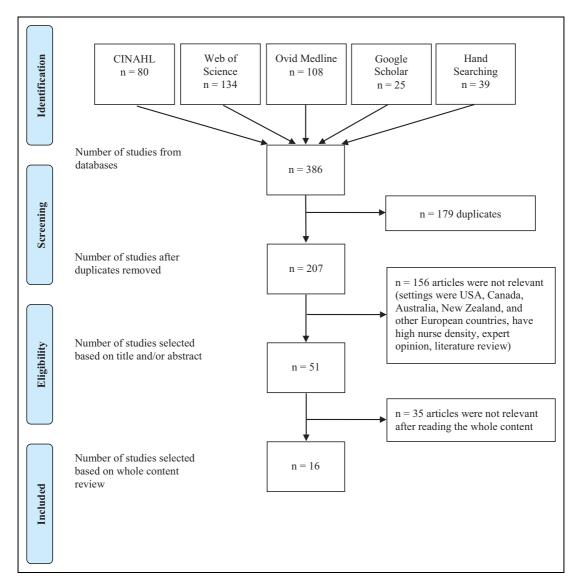


Figure 1. Summary of search outcome and study selection for integrative review.

### Results

Three main focus areas were identified as follows: moral distress experiences perceived by non-Western nurses, contributing factors, and outcomes of moral distress. In addition to these foci, the characteristics of the studies are summarized.

# Characteristics of the studies

In all, 16 studies that met the inclusion criteria were analyzed. Based on The Joanna Briggs Institute Critical Appraisal tools, the overall quality of the included research studies was good.<sup>25,26</sup> The studies were

Table 1. Quantitative studies on moral distress.

Author	Country, setting, sample	Purpose	Research design, measurement	Findings
Borhani et al. <sup>27</sup>	- Iran - Mixed wards - 220 nurses - Two teaching hospitals	- To examine the relationship between moral distress (MD), professional stress, and intent to stay in the nursing profession	Design: - Cross-sectional correlational study Measurement: - Shorten form of MDS 21 items (reliability: α = 0.93) - Wolfgang's Health Professions Stress Inventory - Nedd Questionnaire on Intent to Stay in the Profession	- MD frequency (M = 2.21, SD = 0.56), intensity (M = 2.25, SD = 0.6) - Top three factors:   1. I have found myself in situations where there was not enough staff to adequately provide the necessary services (M(F) = 2.83, M(I) = 2.83)   2. I find myself caring for the emotional needs of patients (M(F) = 2.52, M(I) = 2.65)   3. I have so much work to do that I cannot do everything well (M(F) = 2.15, M(I) = 2.17)   - MD increase with decreasing age ( $r = -0.2$ , $p < 0.05$ ) - Negative correlation between MD and number of years in service ( $r = -0.3$ , $p < 0.05$ ) - MD significantly correlated with work setting ( $p < 0.05$ ) - Pediatric nurses have highest MD mean score (M = 2.63, SD = 0.26) - No significant correlation was observed between MD, professional stress, and sex or type of employment
Borhani et al. <sup>28</sup>	- Iran - ICU and CCU - Four hospitals - IS3 nurses	- To determine the relationship between moral sensitivity and MD	Design: - Cross-sectional correlational study Measurement: - Shorten form of MDS 21 items (reliability: $\alpha=0.88$ ) - Moral Sensitivity Questionnaire	- MD frequency (M = 46.6, SD = 16.45), intensity (M = 44.8, SD = 16.68) - Highest mean score: lower levels of care due to the pressure caused by staff shortage, equipment shortage, and cost reduction - MD increase with increasing in age - MD increase with increasing in work experience - Positive correlations between intention to leave and both MD frequency ( $p=0.02$ ) and intensity ( $p=0.03$ )
Borhani et al. <sup>29</sup>	- Iran - Mixed unit - Three hospitals - 300 nurses	- To investigate the relationship between MD and perception of futile care	Design: - Cross-sectional study Measurement: - Shorten form of MDS 21 items (reliability: $\alpha = 0.85$ ) - Nurses' perception of futile care situations	- MD frequency (M = 3.11, SD = 0.6), intensity (M = 3.54, SD = 0.3) - Highest average mean of intensity and frequency item is "My busy work schedule causes my job quality to be reduced" - Positive correlation between MD and nurses' perception of futile care ( $r = 0.4$ , $p = 0.03$ ) - Negative correlation between MD with age ( $r = -0.3$ , $p = 0.04$ ) and number of years in service ( $r = -0.4$ , $p = 0.04$ ) - ICU nurses yield highest MD mean (M = 4.25, SD = 0.25) and highest mean of futile care of 3.2 (M = 3.2, SD = 0.76)
Shoorideh et al. <sup>8</sup>	- Iran - 12 academic hospitals - 180 ICU nurses	- To determine the correlation between MD with burnout and anticipated turnover	Design: - Cross-sectional correlational study Measurement: - Tunian moral distress scale (IMDS) using content analysis of literature (30 items) (reliability: $\alpha=0.96$ ) - Burnout Inventory - Anticipated Turnover Scale	- Overall MD (M = 2.08, SD = 0.98)  - IMDS subscale mean scores:  1. Inappropriate competencies and responsibilities (M = 2.08, SD = 0.98)  2. Errors (M = 2.07, SD = 1.19)  3. Not respecting the ethics principles (M = 1.83, SD = 1.23)  - Positive correlation between age, years of nursing experience, years of ICU nursing experience, years of current ICU nursing experience, nurse-to-patient ratio, and MD - No correlation between type of employment, shift type, and MD - Positive correlation between MD and burnout (p < 0.05)  - No correlation between MD and anticipate turnover

Table I. (continued)				
Author	Country, setting, sample	Purpose	Research design, measurement	Findings
Soleimani et al. <sup>30</sup>	- Iran - 193 nurses - Mixed units	- To examine the relationship between spiritual well-being and MD	Design: - Cross-sectional correlational study Measurement: - MDS-R 21 items with slight modification (reliability: $\alpha=0.88$ )	- Overall MD (M = 109.56, SD = 58.70)  - Gender and educational levels were found to be independent predictors for MD  - Female nurses reported higher MD than female  - Associate degree holders reported less MD than nurses with master degrees and above  - Increase age predicted higher MD level  - The tendency to leave the current job was a significant outcome of MD
Wenwen et al. <sup>31</sup>	- China - Three general hospitals - 465 clinical nurses	- To describe the current situation of MD and to explore its influencing factors	Design: - Cross-sectional correlational study Measurement: - Chinese version MDS-R 21 items (reliability: \alpha = 0.87) - Job Diagnostic Survey	<ul> <li>No significant correlation between MD and spiritual well-being</li> <li>Overall MD (M = 36.01, SD = 24.02), frequency (M = 1.13, SD = 0.49), intensity (M = 1.09, SD = 0.58)</li> <li>Highest frequency and intensity:</li> <li>I. Follow the family's wishes to continue life support even though I believe it is not in the best interest of the patient</li> <li>2. Initiate extensive life-saving actions when I think they only prolong death</li> <li>3. Work with nurses or other healthcare providers who are not as competent as patient</li> </ul>
Asgari et al. <sup>32</sup>	- Iran	- To determine	Design:	care requires - Demographic variables including age, education, department, years of working in nursing, titles, position, nature of job, and monthly income were influencing factors for MD except for gender and marital status - Negative correlation between MD and job dissatisfaction ( $r=0.216$ , $\rho<0.01$ ) - Overall MD ( $M=87.02$ , SD = 44.56)
	- Five hospitals - 142 ICU and CCU nurses	relationship of MD and ethical climate to job satisfaction in critical care nurses	- Descriptive-correlation study - MDS-R (21 items) ( $\alpha=0.92$ ) - Hospital Ethical Climate Survey (HECS) (26 items) - Brayfield and Rothe job satisfaction (19 items)	<ul> <li>Most morally distressing:</li> <li>1. Carry out physician orders for what I consider to be unnecessary tests and treatments</li> <li>2. Initiate life-saving actions when I think they only prolong death</li> <li>3. Assist a physician who is providing incompetent care</li> <li>4. Continue to participate in care for hopelessly ill person when no one will make a decision to withdraw support</li> <li>5. Ignore situations in which patients have not been given adequate information to insure informed consent</li> <li>8.5% had left a position in the past</li> <li>16.9% considering leaving now</li> </ul>
Ghasemi et al. <sup>33</sup>	- Iran - Three hospitals - 195 pediatric nurses	- To evaluate MD among nurses working in pediatric wards	Design: - Cross-sectional study - MDS-R (21 items)	- True was not a significant predictor of 100 satisfaction.  - Mean intensity: 44.82 (SD = 15.85)  - Mean total: 106.41 (SD = 61.64)  - Most distressing:  I. Witness medical students perform painful procedures on patients solely to increase their skill.  2. Be required to care for patients I don't feel qualified to care for 3. Assist physician who is providing incompetent care.
Haghighinezhad et al. <sup>34</sup>	- Iran - Six hospitals - 284 ICU nurses	- To examine the relationship between perceived organizational justice and MD among	Design: - Descriptive-correlation study - Iranian MDS (30 items) $(\alpha=0.93)$ Niehoff and Moorman (org justice) survey (20 items)	<ul> <li>4. Carry out physician's orders for what I consider to be unnecessary tests and treatments.</li> <li>5. Witness diminished patient care quality due to poor team communication</li> <li>5.6.% these quitted a position due to MD</li> <li>5.4.5% considering leaving now</li> <li>Overall MD (M = 1.51, SD = 0.99)</li> <li>ImDS subscale means:</li> <li>I. Inappropriate competencies and responsibilities (M = 1.33, SD = 0.69)</li> <li>2. Errors (M = 1.71, SD = 0.72)</li> <li>3. Not respecting ethics principles (M = 1.49, SD = 0.91)</li> <li>• Weak negative correlation between organizational justice and MD (r = -0.137, p = 0.024)</li> </ul>

MDS: Moral Distress Scale; SD: standard deviation; ICU: intensive care unit; CCU: coronary care unit; MDS-R: Moral Distress Scale-Revised.

 Table 2. Qualitative studies on moral distress.

Author	Country, setting, sample	Purpose	Research design, method	Findings
Harrowing and Mill <sup>35</sup>	- Uganda - 24 nurses	- To describe the manifestation and impact of moral distress on nurses caring for HIV patients	Design: - Ethnographic Method: - Semi-structured questions - Observation, field note, and memo - Thematic analysis	- Called to serve: commitment to serve but difficulty doing so with lack of resources (e.g. linens, medications, food) and lack of staff (80–100 patients per 2 nurses) - Hurting and haunting: patient and staff suffering when patient care quality is poor, guilt, helplessness, inadequacy - Losing the essence: systematic challenges that wear nurses down such that substandard care is accepted - Counting for something: doing one's best, not giving up, choosing a positive artifula
Maluwa et al. <sup>36</sup>	- Malawi - Purposive sample of 20 nurses	- To explore the existence of moral distress among nurses	Design: - Qualitative study - Method: - Individual face to face interview - Tape-recorded and transcribed	- Knowledge about moral distress: nurses were unfamiliar with the term moral distress but reported morally distressing situations - Causes of moral distress:  1. Shortage of staff 2. Violating regulations in order to protect patients 3. Lack of respect from patients 4. Lack of resources 5. Inappropriate behavior of colleagues and 6. Mismanagement by superior and bosses Effects: 1. Physical and psychological symptoms 2. Coping mechanisms 3. Desire for support systems
Shoorideh et al. <sup>37</sup>	- Iran: 12 cities - 31 nurses: 28 clinical nurses and 3 nurse educators	- To explore the phenomenon of moral distress among ICU nurses in Iran	Design: - Qualitative study - Method: - Semi-structured in-depth interview - Tape-recorded and transcribed - Content analysis	For control of the property of

ਰ
nue
onti
<u>υ</u>
e 2
ap
-

Author	Country, setting, sample	Purpose	Research design, method	Findings
Shoorideh et al. <sup>38</sup>	- Iran - 26 ICU nurses	- To elicit responses of - Design: ICU nurses to - Qualita moral distress - Method 13 nurs interv 7 wo gr focus 6 conter	<ul> <li>Design:</li> <li>Qualitative study</li> <li>Method:</li> <li>13 nurses were in-depth interviewed</li> <li>Two groups of six and seven for focus group</li> <li>Content analysis</li> </ul>	Outcomes:  1. Psychosomatic reactions  - pain, for example, headache, muscle contraction, and backache  - digestive disorders  - sleeping disorders  - fatigue and energy reduction  2. Spiritual reactions  - losing the meaning and concept of life  - feeling of worthlessness  - disorders in doing religious practice  - disorders in doing religious practice
et al. 39 et al. 39	- India - South Indian Cancer Hospital - 37 oncology nurses	- To explore the experience of moral distress in oncology nurse	- Design: - Ethnographic study - Method - Semi-structured interview - Observation - Field note	Four main themes:  1. Clinical situation  - futile care: unnecessary treatment  - thwarted advocacy: their concerns were dismissed  - patient suffering  2. External factor  - administrative hurdles: redundant documentation, unsupported by upperlevel management  - interdisciplinary conflicts: hierarchical power  - interdisciplinary conflicts: hierarchical power  - lack of resources: blood products and number of nursing staff  - cost containment  3. Internal factor  - perceived powerlessness  outcomes:  - Perceived powerlessness  outcomes:  - Leaving the job or profession  3. Compromised patient care, less interactions and communication between providers and patients and family members  4. Erodes moral integrity (core values and beliefs)

Table 2. (continued)

Author	Country, setting, sample	Purpose	Research design, method	Findings
Langley et al. <sup>40</sup>	- South Africa - Two tertiary hospitals - ICU - 32 nurses	- To explore and describe nurses' experiences of situations that evolve EOL care and evoke moral distress in ICUs	- Nurses write narratively respond to the open-ended questions - MD definition: one knows/ believes what the correct thing would be to do but cannot pursue this option	1. Collegial incompetence or inexperience 2. Resource constraints 3. Lack of communication and collaboration  - miracle do happen so you can't say the patient will die  - religious belief, the patient needs to move after death because a new patient is coming  - a hierarchical structure of the healthcare system  4. EOL issues: maintain futile care, giving false hope, and hasten death  5. Lack of support from management, for example, EOL training outcomes:  - Patient safely, regret, guilt, emotionally exhausted, physically exhausted, and sold processes and communication, decrease self-esteem, and communication, decrease self-esteem, and communication.
Chen et al. <sup>41</sup>	- Taiwan - Regional teaching hospital - I5 nurses for interview - 60 nurses for Q sorting	- To identify and describe various types of perceptions of MD	- Design - Q methodology - Method - In-depth interview - Construct Q statement from transcript - Nurses rank the severity of each Q statement - Run factor analysis	sen-connected, compassion augue  1. Futile care terminal patients are forced to continue intensive treatment because the physician refuses to give up medical treatment is performed against patients' will because of the requests made by family members disagreement to attain consensus exists between the family members of patients intensive treatment is provided to terminal patients merely to meet the demands of family members and offer consolation  2. Team issues - physicians' inappropriate behavior - inconsistent opinions and goal of care  3. Curbing autonomy - forced to perform tasks that are beyond the permission of nurses - lacking consistent opinions of the organization, supervisor, or interdisciplinary medical members - forced to follow the instructions of physicians or other nurses with supervisory authority - Organizational constraints - excessive administrative work and paperwork - inadequate staffing - excessive administrative workload - carelessness during shift exchange

HIV: human immunodeficiency virus; ICU: intensive care unit; CPR: cardiopulmonary resuscitation; EOL: end of life; MD: moral distress.

conducted in seven different countries. Most studies were conducted in Middle Eastern or Asian countries such as Iran (n = 10), Taiwan (n = 1), China (n = 1), and India (n = 1) and three were conducted in African countries including Malawi (n = 1), South Africa (n = 1), and Uganda (n = 1).

The studies included both quantitative (nine) (Table 1) and qualitative approaches (seven) (Table 2). In the nine quantitative studies, the MDS-R was used in four studies.<sup>30–33</sup> Three research studies used a modified MDS,<sup>27–29</sup> and two studies used an Iranian MDS (IMDS).<sup>8,34</sup> Scales to measure moral distress were available in two different languages. In eight studies, reliability was reported with Cronbach's alpha coefficient greater than 0.80. All seven qualitative studies included in-depth interviews for data collection. Participants in the studies varied, including intensive care unit (ICU) nurses, <sup>8,28,32,34,37,38,40</sup> mixed wards, <sup>27,29–31,36,41</sup> HIV nurses, <sup>35</sup> oncology nurses, <sup>39</sup> and pediatric nurses. <sup>33</sup>

# Experiences of moral distress

From studies using the MDS, MDS-R, or modifications of the MDS-R, ICU nurses experienced varying levels of moral distress, ranging from relatively low levels<sup>32,34</sup> to moderate<sup>8,28</sup> and high<sup>29</sup> levels. In parallel, studies of non-ICU nurses also reported varying levels, from low<sup>31</sup> to moderate<sup>27</sup> to high.<sup>30,33</sup> Although the levels of moral distress experiences in ICU and non-ICU nurses seem to be similar, the root causes appear to be different. For example, Asgari et al.<sup>32</sup> found that the most distressing root causes for ICU nurses were generally focused on overly aggressive treatment such as carrying out orders for unnecessary tests and treatments and inappropriately initiating life-sustaining treatment, as well as working with incompetent colleagues. In studies of non-ICU nurses, root causes generally centered on team and system problems such as witnessing medical students perform treatments only to improve their skills, being unqualified to care for patients, feeling pressure to alter practice in order to reduce costs, and encountering conflict with administration.<sup>27,33</sup> However, in their study of non-ICU nurses, Wenwen et al.<sup>31</sup> found that the most problematic causes of moral distress were initiating and continuing life-sustaining treatment when it is believed that these are pointless.

Demographic characteristics such as age, gender, educational level, and years of working may correlate with moral distress experiences. There is a discrepancy in moral distress levels for different age groups. Various studies found a positive association between age and years of clinical experience with moral distress, meaning that older nurses and expert nurses tended to have higher levels of moral distress than younger or novice nurses.  $^{8,28,30,31}$  In contrast, two studies found that younger nurses experienced higher levels of moral distress frequency and intensity than older nurses.  $^{27,29}$  Soleimani et al.  $^{30}$  reported differences in moral distress based on gender, with female nurses having higher moral distress levels than male nurses; however, a small number of men participated in the study (n = 36, females n = 157).

# Factors contributing to moral distress

Three main themes of contributing factors included end-of-life (EOL) issues, unit/team factors, and organizational factors.

EOL issues. Futility and unnecessary treatments are clinical situations frequently described as causes of moral distress among nurses in both quantitative and qualitative studies. 31,37,39-41 Examples of this are receiving orders to start inotropes for a patient who had been declared brain dead and witnessing a physician provide false hope to a family in order to convince them to continue with aggressive treatments. 40 Nurses expressed concern that not only did patients suffer but that it also extended the grieving period of the family. 40 Not all participants found such situations to be morally distressing; however, Chen et al. 41

reported that some nurses believed that these intensive and unnecessary treatments were provided to terminal patients merely to meet the demands of family members and offer consolation.

Two unique situations arose in this review. Religious beliefs played an important role in some situations, especially regarding treatment decisions for patients at the EOL. In an Iranian study, where the dominant religion is Islam, nurses described a conflict between professional values and religious beliefs that lead them to experience moral distress. The nurses understood that cardiopulmonary resuscitation (CPR) is not appropriate for some patients but they felt pressured to perform it because, according to the instructions of Islam, no one can end the life of another person.<sup>37</sup> A second unique cause was found among South African nurses who illustrated their moral distress due to requests by doctors to increase morphine doses to levels that could end a patient's life or to be involved in treatment decisions to hasten the deaths of terminally ill patients.<sup>40</sup>

*Unit/team constraints*. This theme refers to moral distress caused by poor team collaboration and communication, working with incompetent healthcare providers, witnessing practice errors, and working in an inhibiting hierarchical environment. In several quantitative and qualitative studies, working with colleagues who are not as competent as the patient care requires tended to be very disturbing for nurses. <sup>31,33,37,40,41</sup>

With regard to a poor team function, communication and collaboration within the team were crucial triggers of moral distress. Lack of communication among healthcare providers, especially between nurses and physicians, led to miscommunications between nurse and family and inconsistent goals of care. <sup>37,40,41</sup> When nurses were unable to provide accurate information to patients or family members, they felt that they were unsuccessfully providing holistic care. <sup>37,40</sup> In addition, nurses reported feeling that they were not part of the team, although they wished to be included. <sup>40</sup>

Hierarchical power structures were found to be a common cause of nurses' moral distress. Sometimes a person (nurse) who is lower in the hierarchical structure has to carry out orders from a superior (physician) that are against his or her own conviction. <sup>37,39–41</sup> The imbalance of power among the team was also reported by nurses as a barrier for them to advocate for the patient. <sup>39</sup> Some nurses experienced moral distress when they were provided with limited autonomy or input in decision-making in situations where they disagreed with physicians over a course of treatment. <sup>41</sup>

Organizational constraints. Organizational constraints refer to factors beyond the responsibility of staff or management at the unit/team level such as limited resources (e.g. staff shortages, insufficient medical supplies, and equipment), excessive administrative work, conflict with hospital policy, and perceived lack of support by administrators.

Among the factors related to institutional barriers and constraints, nurse to patient ratio, workload, and lack of resources were often reported as sources of moral distress. Nurses expressed concern about being required to complete excessive general administrative tasks and written assignments, <sup>41</sup> low staffing resulting in higher workloads, and the necessity of overtime hours. Nurses were pressured to provide care quickly and effectively but had insufficient time to achieve the standard of care or provide more comprehensive patient treatments. <sup>35–37,39</sup> For example, in a study of Ugandan nurses, nursing units with 25 beds often admitted 80–100 patients and were staffed by 1 or 2 nurses <sup>35</sup> which is similar to the staffing levels in LeBaron et al.'s <sup>39</sup> study in India where the nurse:patient ratio could be as high as 1:60+. The Indian nurses reported that they generally felt unsupported by upper-level management; therefore, this staff shortage would become a chronic issue for them. <sup>39</sup>

Not only did human resources serve as the source of moral distress, but the lack of basic equipment and supplies such as linens, food, and medications also lead to moral distress due to an inability to achieve standard of care. For example, in India, resources are allocated by the Ministry of Health and the financial reality of the patients served by the hospital. So, in LeBaron et al.'s sudy, nurses experienced

moral distress caused by both insufficient resources and unfair distribution of those limited resources based on hospital financial goals. The lack of supplies prompted some nurses to purchase food and medications for patients using their own money<sup>35</sup> and lead to undertreatment of pain and inadequate chemotherapy for cancer patients.<sup>39</sup>

# Outcomes of moral distress

Five studies described the outcomes or consequences of moral distress. <sup>35,36,38–40</sup> These outcomes fall into three themes as follows: personal impacts, patient impacts, and institutional impacts.

Personal impacts. Four studies explored the impacts of moral distress on physical, psychological, and spiritual well-being of nurses. <sup>30,36,38,39</sup> Physical symptoms included insomnia, headache, loss of appetite, and stomachache. <sup>36,38</sup> Psychological impacts included helplessness, feelings of inadequacy, hopelessness, anger, sadness, stress, anxiety, depression, regret, and guilt. <sup>35,36,38,39</sup> Feelings of worthlessness and losing faith are spiritual dimensions affected by moral distress as described by Shoorideh et al., <sup>38</sup> although Soleimani et al. <sup>30</sup> did not find a correlation between moral distress and spiritual well-being. Nurses in Shoorideh et al. 's <sup>38</sup> study expressed that moral distress made them feel that life is meaningless and human beings are worthless. Some asserted that they quit their religious practices and do not say their prayers. <sup>38</sup> Nurses in one study described wishing they could break hospital rules in order to do the right thing but not doing so because of fear of retribution. <sup>38</sup> On the other hand, over half of the nurses in the Maluwa et al. 's <sup>36</sup> study actively violated hospital rules or refused physician orders in order to protect patients.

Patient impacts. Nurses' moral distress may affect the quality of patient care and subsequent health outcomes. Three studies indicated that nurses lost the ability to care for their patient or avoided patient interaction. 35,36,38,39

*Institutional impacts.* Nurses in four studies demonstrated signs of burnout<sup>35</sup> or low job satisfaction.<sup>31</sup> Asgari et al.<sup>32</sup> and Ghasemi et al.<sup>33</sup> reported that nurses were considering leaving their jobs now due to moral distress (16.9% and 54.4%, respectively). Maluwa et al.<sup>36</sup> and LeBaron et al.<sup>39</sup> provide qualitative evidence of intention to leave as well.

### **Discussion**

This review provides a synthesis of both quantitative and qualitative studies of moral distress to characterize the experience and to identify common causes and outcomes among non-Western nurses. Some variation exists in the experience of moral distress among ICU and non-ICU nurses but no other professional or demographic variables correlate consistently with moral distress. The causes of moral distress for nurses practicing in low nurse density countries appear to be largely similar to those of nurses described in a previous review which mostly included studies of Western countries, <sup>11,12</sup> although cultural and resource factors that may shape the causes differently. Finally, the outcomes of moral distress are largely negative, again consistent with previous studies. <sup>11,12</sup>

Both ICU and non-ICU nurses generally reported low to moderate levels of moral distress frequency, whereas the levels of moral distress intensity tended to be higher. Moral distress scores are typically higher among ICU nurses than non-ICU nurses, although these scores are generally, but not always, reported as combined scores (frequency × intensity) rather than as separate frequency and intensity scores. <sup>18,42</sup> In this review, the use of different instruments (IMDS, MDS, MDS 21 item, MDS-R, or other modified MDS-R) and different scoring formulas made comparison difficult. In addition, there are no established parameters

for low, moderate, or high levels of moral distress for any of the instruments, as these parameters may be different depending on factors such as setting and profession. With respect to nurses' demographic characteristics such as age, gender, educational level, years of working, and income, there is no clear congruence regarding the relationship between these sociodemographic variables and moral distress from this review. The incongruity in findings might be due to differences in culture, setting, number of moral distress episodes, individual coping strategy, and work environment. These unmodifiable demographic variables may vet be confounding factors and should continue to be evaluated in future studies.

Common causes of moral distress among non-Western nurses reflect the three-level structure proposed by Hamric and Epstein. <sup>13</sup> At the patient level, inappropriate treatment is often identified as being the highest ranked causes of moral distress. <sup>15,18,42,46,47</sup> Examples include following a family's wishes to continue life support even though it is not in the best interest of the patient and continuing to provide aggressive treatment for a person who is most likely to die regardless of this treatment when no one will make a decision to withdraw it. <sup>9,10,17,18,42,48</sup> In the current review, end-of-life situations involving inappropriate treatment were also the most problematic causes of moral distress in nurses. Two studies found situations not commonly identified in the previous review or other studies, that is, situations in which providers' religious beliefs added complexity to end-of-life decision-making and situations in which nurses were ordered to hasten patients' deaths. <sup>37,40</sup> Moral distress occurs when professional values and beliefs are violated, not personal values and beliefs. Religious beliefs are typically considered to be personal beliefs, but in the case of Shoorideh et al.'s<sup>37</sup> study, the religious beliefs were deeply held by other providers and patients as well as the nurses and, while the nurses realized that additional aggressive treatments were unlikely to be helpful, they felt compelled to provide them because of orders from physicians and interpretations of their faith.

Team-level causes in this review such as poor team communication or collaboration, incompetent colleagues, and lack of provider continuity are comparable and common causes of moral distress in several studies. 9,15,18,19,49 Nurse–physician collaboration has been identified as a way of amending the power relationship and supporting nurses' autonomy. Problematic inter-professional collaboration is associated with the limited authority of nurses to apply their personal and professional moral reasoning and values in the care of patients. This may lead to individual nurses experiencing less input in decision-making despite them having relevant and useful information to contribute to those decisions, and greater moral distress. Although professional hierarchical structures are present in both Western and non-Western countries, one might argue that there might be more or different hierarchical constraints in non-Western organizations due to the dominance of hierarchical structures in some countries.

With respect to constraints at organizational level, inadequate staffing is a common root cause of moral distress at the organizational level that appeared to be true in all cultural contexts. <sup>9,15,18,19,27,28,35–37,39</sup> In a Canadian qualitative study, nurses and physicians reported that a lack of appropriate equipment and a dearth of health professionals caused moral distress because of the impact on their ability to provide the best possible care. <sup>15</sup> However, the economic statuses of the countries included in this review are lower than most Western countries and the lack of sufficient resources can mean overwhelmingly high nurse:patient ratios (e.g. 1:60–100) and a severe absence of basic medical supplies. <sup>35,39</sup> Furthermore, nurses reported blaming themselves and being blamed by patients and administrators for their inability to provide adequate care due to system problems. Thus, while lacking sufficient resources is identified as a root cause of moral distress in both, the extent and experience of the problem appear to be different and worthy of further study.

Outcomes of moral distress in this review are largely negative. It impacts aspects of nurses' physical and psychological well-being, quality of patient care, and the institution such as burnout and leaving the profession which aligns with the previous review. No studies have identified direct links between provider moral distress and patient care outcomes, but several studies have explored nurses' perceptions of the impact of morally distressing situations on patient care quality and outcomes. Wiegand and Funk<sup>46</sup> found that nurses perceive morally distressing situations to be associated with negative patient

experiences of suffering, prolonged dying, undignified dying, poor quality of life, inappropriate care, delayed treatment, prolonged hospitalization, disrespect, and the inability to be with family, and negative family experiences such as being unprepared, overwhelmed, and suffering unnecessarily. In a study of moral distress among mental health nurses, Austin et al.<sup>52</sup> found that nurses in situations of chronic understaffing believed patient care to suffer—patients screaming and not receiving help, patients not receiving necessary care, or even patients dying alone. In addition, considering leaving a nursing position is one outcome of moral distress that impacts clinicians and organizations as evident by both quantitative and qualitative studies in this review. <sup>30,39</sup> In multiple American studies, 45% to nearly 50% of nurses have left a position or have considered leaving a position because of moral distress. <sup>9,18,53</sup> Furthermore, moral distress scores are positively associated with intention to leave a position now due to moral distress. <sup>5,9,18,19,47,49,53,54</sup>

## **Conclusion**

This integrative review was conducted in a systematic manner providing a rigorous representation of the results. The results confirm that while the concept of moral distress is not well known among non-Western nurses, both qualitative and quantitative studies indicate that they experience moral distress in similar ways to Western nurses, although cultural differences may be important differentiators between the west and non-west. Moral distress is understudied in non-Western nurses; however, MDSs developed by American academic experts have been used and adapted for use in these settings with good results. Consistency in measurement would allow for a more robust comparison between cultures and may allow for insights into the cultural influences of the phenomenon. In this regard, qualitative studies remain invaluable as they provide rich and culturally nuanced narratives.

#### Limitations

Although this review succeeds in answering the specified questions, this review has several limitations. First, the included studies were generally conducted using small sample sizes, convenience sampling, only a single setting, and often had low response rates. Second, the variety of instruments used to measure moral distress limited the interpretation of findings.

# **Implications**

This review provides evidence that the experience of moral distress is universal. The findings could provide an informative for hospital administrators on a cause of nursing shortage and how to mitigate moral distress in healthcare setting. Further research is needed to deeply explore the effects of religious beliefs and cultural influences on moral distress. Multi-national, non-Western studies of moral distress would allow for evaluation of the phenomenon over a broader range of cultures using a consistent measure of moral distress. Further review on the comparison of moral distress experience between Western and non-Western nurses might provide a comprehensive understanding on cultural influences on moral distress. In addition, studies of nurses' coping strategies with moral distress, work environment, and the standard measure of the nurses' moral distress episode might provide an explanation on why moral distress does not always correlated with demographic variables (such as age and years of nursing experience). Studies of other healthcare professions may broaden the understanding of moral distress, its sources, constraints, and outcomes. More importantly, interventions to mitigate moral distress need to be developed and tested in non-Western cultures.

#### **Conflict of interest**

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

#### **Funding**

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: The study was funded by the Barbara Parker Dissertation Funding Award through School of Nursing, University of Virginia.

#### **ORCID iD**

Chuleeporn Prompahakul https://orcid.org/0000-0001-8183-8566

#### References

- 1. Jameton A. Nursing practice: The ethical issues. Englewood Cliffs, NJ: Prentice Hall, 1984.
- 2. Jameton A. Dilemmas of moral distress: moral responsibility and nursing practice. *AWHONNS Clin Issues Perinat Womens Health Nurs* 1993; 4(4): 542–551.
- 3. Wilkinson JM. Moral distress in nursing practice: experience and effect. Nurs Forum 1987–1988; 23(1): 16–29.
- 4. Corley MC, Elswick RK, Gorman M, et al. Development and evaluation of a moral distress scale. *J Adv Nurs* 2001; 33(2): 250–256.
- 5. Hamric AB and Blackhall LJ. Nurse-physician perspectives on the care of dying patients in intensive care units: collaboration, moral distress, and ethical climate. *Crit Care Med* 2007; 35(2): 422–429.
- 6. Houston S, Casanova MA, Leveille M, et al. The intensity and frequency of moral distress among different healthcare disciplines. *J Clin Ethics* 2013; 24(2): 98–112.
- 7. Ohnishi K, Ohgushi Y, Nakano M, et al. Moral distress experienced by psychiatric nurses in Japan. *Nurs Ethics* 2010; 17(6): 726–740.
- 8. Shoorideh FA, Ashktorab T, Yaghmaei F, et al. Relationship between ICU nurses' moral distress with burnout and anticipated turnover. *Nurs Ethics* 2015; 22(1): 64–76.
- 9. Hamric AB, Borchers CT and Epstein EG. Development and testing of an instrument to measure moral distress in healthcare professionals. *AJOB Prim Res* 2012; 3(2): 1–9.
- 10. Epstein EG, Whitehead PB, Prompahakul C, et al. Enhancing understanding of moral distress: the measure of moral distress for health care professionals. *AJOB Empir Bioeth* 2019; 10(2): 113–124.
- 11. Oh Y and Gastmans C. Moral distress experienced by nurses: a quantitative literature review. *Nurs Ethics* 2015; 22(1): 15–31.
- 12. Huffman DM and Rittenmeyer L. How professional nurses working in hospital environments experience moral distress: a systematic review. *Crit Care Nurs Clin North Am* 2012; 24(1): 91–100.
- 13. Hamric AB and Epstein EG. A health system-wide moral distress consultation service: development and evaluation. *HEC Forum* 2017; 29(2): 127–143.
- 14. Colville G, Dawson D, Rabinthiran S, et al. A survey of moral distress in staff working in intensive care in the UK. *J Intensive Care Soc* 2018; 20(3): 196–203.
- 15. Henrich NJ, Dodek PM, Alden L, et al. Causes of moral distress in the intensive care unit: a qualitative study. *J Crit Care* 2016; 35: 57–62.
- 16. Hiler CA, Hickman RL Jr, Reimer AP, et al. Predictors of moral distress in a US sample of critical care nurses. *Am J Crit Care* 2018; 27(1): 59–66.
- 17. Johnson-Coyle L, Opgenorth D, Bellows M, et al. Moral distress and burnout among cardiovascular surgery intensive care unit healthcare professionals: a prospective cross-sectional survey. *Can J Crit Care Nurs* 2016; 27(4): 27–36.

18. Whitehead PB, Herbertson RK, Hamric AB, et al. Moral distress among healthcare professionals: report of an institution-wide survey. *J Nurs Scholarsh* 2015; 47(2): 117–125.

- 19. Fumis RRL, Amarante GA, Nascimento AdeF, et al. Moral distress and its contribution to the development of burnout syndrome among critical care providers. *Ann Intensive Care* 2017; 7(1): 71–78.
- 20. World Health Organization (WHO). Nursing and midwifery personnel, http://apps.who.int/gho/data/node.main.HWFGRP\_0040? (2016, accessed 20 August 2019).
- 21. Varcoe C, Pauly B, Storch J, et al. Nurses' perceptions of and responses to morally distressing situations. *Nurs Ethics* 2012; 19(4): 488–500.
- 22. Whittemore R and Knafl K. The integrative review: updated methodology. J Adv Nurs 2005; 52(5): 546–553.
- 23. Milliken A. Nurse ethical sensitivity: an integrative review. Nurs Ethics 2018; 25(3): 278–303.
- 24. Moher D, Liberati A, Tetzlaff J, et al. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *PLoS Med* 2009; 6(7): e1000097.
- 25. Moola S, Munn Z, Tufanaru C, et al. Chapter 7: systematic reviews of etiology and risk. In: Aromataris E and Munn Z (eds) *Joanna Briggs Institute reviewer's manual*. The Joanna Briggs Institute, 2017, https://reviewersmanual.joannabriggs.org/
- 26. Lockwood C, Munn Z and Porritt K. Qualitative research synthesis: methodological guidance for systematic reviewers utilizing meta-aggregation. *Int J Evid Based Healthc* 2015; 13(3): 179–187.
- 27. Borhani F, Abbaszadeh A, Nakhaee N, et al. The relationship between moral distress, professional stress, and intent to stay in the nursing profession. *J Med Ethics Hist Med* 2014; 7: 3–8.
- 28. Borhani F, Abbaszadeh A, Mohamadi E, et al. Moral sensitivity and moral distress in Iranian critical care nurses. *Nurs Ethics* 2015; 24(4): 474–482.
- 29. Borhani F, Mohammadi S and Roshanzadeh M. Moral distress and perception of futile care in intensive care nurses. *J Med Ethics Hist Med* 2015; 8(2): 1–7.
- 30. Soleimani MA, Sharif SP, Yaghoobzadeh A, et al. Spiritual well-being and moral distress among Iranian nurses. *Nurs Ethics* 2016; 26(4): 1101–1113.
- 31. Wenwen Z, Xiaoyan W, Yufang Z, et al. Moral distress and its influencing factors: a cross-sectional study in China. *Nurs Ethics* 2016; 25(4): 470–480.
- 32. Asgari S, Shafipour V, Taraghi Z, et al. Relationship between moral distress and ethical climate with job satisfaction in nurses. *Nurs Ethics* 2019; 26(2): 346–356.
- 33. Ghasemi E, Negarandeh R and Janani L. Moral distress in Iranian pediatric nurses. *Nurs Ethics* 2019; 26(3): 663–673.
- 34. Haghighinezhad G, Shoorideh FA, Ashktorab T, et al. Relationship between perceived organizational justice and moral distress in intensive care unit nurses. *Nurs Ethics* 2019; 26(2): 460–470.
- 35. Harrowing JN and Mill J. Moral distress among Ugandan nurses providing HIV care: a critical ethnography. *Int J Nurs Stud* 2010; 47(6): 723–731.
- 36. Maluwa VM, Andre J, Ndebele P, et al. Moral distress in nursing practice in Malawi. *Nurs Ethics* 2012; 19(2): 196–207.
- 37. Shoorideh FA, Ashktorab T and Yaghmaei F. Iranian intensive care unit nurses' moral distress: a content analysis. *Nurs Ethics* 2012; 19(4): 464–478.
- 38. Shoorideh FA, Ashktorab T and Yaghmaei F. Responses of ICU nurses to moral distress: a qualitative study. *Irian Journal of Critical Care Nursing* 2012; 4(4): 159–168.
- 39. LeBaron V, Beck SL, Black F, et al. Nurse moral distress and cancer pain management: an ethnography of oncology nurses in India. *Cancer Nurs* 2014; 37(5): 331–344.
- 40. Langley GC, Kisorio L and Schmollgruber S. Moral distress experienced by intensive care nurses. *S Afr J Crit Care* 2015; 31(2): 36–41.
- 41. Chen PP, Lee HL, Huang SH, et al. Nurses' perspectives on moral distress: a Q methodology approach. *Nurs Ethics* 2018; 25(6): 734–745.

- 42. Dyo M, Kalowes P and Devries J. Moral distress and intention to leave: a comparison of adult and paediatric nurses by hospital setting. *Intensive Crit Care Nurs* 2016; 36: 42–48.
- 43. Lievrouw A, Vanheule S, Deveugele M, et al. Coping with moral distress in oncology practice: nurse and physician strategies. *Oncol Nurs Forum* 2016; 43(4): 505–512.
- 44. Wilson MA, Goettemoeller DM, Bevan NA, et al. Moral distress: levels, coping and preferred interventions in critical care and transitional care nurses. *J Clin Nurs* 2013; 22(9-10): 1455–1466.
- 45. Zavotsky KE and Chan GK. Exploring the relationship among moral distress, coping, and the practice environment in emergency department nurses. *Adv Emerg Nurs J* 2016; 38(2): 133–146.
- 46. Wiegand DL and Funk M. Consequences of clinical situations that cause critical care nurses to experience moral distress. *Nurs Ethics* 2012; 19(4): 479–487.
- 47. Dodek PM, Wong H, Norena M, et al. Moral distress in intensive care unit professionals is associated with profession, age, and years of experience. *J Crit Care* 2016; 31(1): 178–182.
- 48. Trotochaud K, Coleman JR, Krawiecki N, et al. Moral distress in pediatric healthcare providers. *J Pediatr Nurs* 2015; 30(6): 908–914.
- 49. Allen R, Judkins-Cohn T, deVelasco R, et al. Moral distress among healthcare professionals at a health system. JONAS Healthc Law Ethics Regul 2013; 15(3): 111–118.
- 50. Karanikola MNK, Albarran JW, Drigo E, et al. Moral distress, autonomy and nurse-physician collaboration among intensive care unit nurses in Italy. *J Nurs Manag* 2014; 22(4): 472–484.
- 51. Papathanassoglou EDE, Karanikola MNK, Kalafati M, et al. Professional autonomy, collaboration with physicians, and moral distress among European intensive care nurses. *Am J Crit Care* 2012; 21(2): e41–e52.
- 52. Austin W, Bergum V and Goldberg L. Unable to answer the call of our patients: mental health nurses' experience of moral distress. *Nurs Inq* 2003; 10(3): 177–183.
- 53. Trautmann J, Epstein E, Rovnyak V, et al. Relationships among moral distress, level of practice independence, and intent to leave of nurse practitioners in emergency departments: results from a national survey. *Adv Emerg Nurs J* 2015; 37(2): 134–145.
- 54. Neumann JL, Mau L-W, Virani S, et al. Burnout, moral distress, work-life balance, and career satisfaction among hematopoietic cell transplantation professionals. *Biol Blood Marrow Transplant* 2018; 24(4): 849–860.