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Moral distress in intensive care unit professionals is associated with profession, age, and years of experience☆

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ABSTRACT

Purpose: To determine which demographic characteristics are associated with moral distress in intensive care unit (ICU) professionals.
Methods: We distributed a self-administered, validated survey to measure moral distress to all clinical personnel in 13 ICUs in British Columbia, Canada. Each respondent to the survey also reported their age, sex, and years of experience in the ICU where they were working. We used multivariate, hierarchical regression to analyze relationships between demographic characteristics and moral distress scores, and to analyze the relationship between moral distress and tendency to leave the workplace.
Results: Response rates to the surveys were the following: nurses—428/870 (49%); other health professionals (not nurses or physicians)—211/452 (47%); physicians—30/68 (44%). Nurses and other health professionals had higher moral distress scores than physicians. Highest ranked items associated with moral distress were related to cost constraints and end-of-life controversies. Multivariate analyses showed that age is inversely associated with moral distress, but only in other health professionals (rate ratio [95% confidence interval]: −7.3 [−13.4, −1.2]); years of experience is directly associated with moral distress, but only in nurses (rate ratio (95% confidence interval):10.8 [2.6, 18.9]). The moral distress score is directly related to the tendency to leave the ICU job, in both the past and present, but only for nurses and other non-physician health professionals.
Conclusion: Moral distress is higher in ICU nurses and other non-physician professionals than in physicians, is lower with older age for other non-physician professionals but greater with more years of experience in nurses, and is associated with tendency to leave the job.

1. Introduction

Moral distress is the stress experienced when a health care professional feels certain of an ethical course of action but is constrained from taking that action [1]. For example, a difference of opinion between a professional and the rest of the health care team about direction of care (eg, full life-support versus comfort care) can cause moral distress. Moral distress can be measured using a validated survey [2,3]. Based on scores from this survey, it is known that intensive care unit (ICU) nurses experience more moral distress than do ICU physicians [1,3,4]; respiratory therapists also experience moral distress [5]. Consequences of moral distress in ICU personnel include burn-out and attrition [3,6]. However, it is not known which characteristics of health professionals are independently associated with moral distress. The purpose of this study was to determine the relationship between moral distress scores in Canadian ICU personnel and their demographic and professional characteristics.

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2. Materials and methods

2.1. Setting and participants

We administered the revised Moral Distress Scale [3] to all full-time and part-time health professionals in the ICUs of 13 tertiary and community hospitals in southwestern British Columbia; these included 3 tertiary, 3 large community, and 7 small community hospitals—all of the acute care hospitals within 2 jurisdictions of care (Supplementary Table 1). There were 1390 recipients of the survey—870 nurses, 452 other health professionals (non-physician, non-nurse clinicians including respiratory therapists, pharmacists, and social workers), and 68 physicians.

Paper surveys were distributed at each site by internal mail from the administrator of each ICU to their staff. To encourage participation, posters were put up in the ICUs, a presentation at each site was given by the principal investigator (PD), one electronic mail reminder was sent by the site leader to all staff members, and the last page of the survey was a form to be entered for a gift-basket draw at each site. Completed surveys were returned at each ICU and the responses were scanned to automatically populate a research database (Oracle, Redwood City, CA). Although the surveys were anonymous, each respondent was asked to state their age, sex, and number of years working in their current unit on the survey document. Due to small numbers of individual professionals within the other health professional group at each hospital—sometimes only one person—and concerns about confidentiality, we did not ask the other health professionals to state their specific profession.

2.2. Measurements

This survey has a Cronbach's α of .88 for a mixture of ICU respondents [3]. The overall moral distress score was calculated according the directions of the survey developers. Briefly, for each of the 21 items on the Moral Distress Scale (Supplementary Table 2; [3]), the score for frequency of disturbance (0-4) was multiplied by the score for level of disturbance (0-4). The sum of these products was the moral distress score. We added one item that asked about overall moral distress in the workplace. The Moral Distress Scale also includes 2 related questions about tendency to leave the job: "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?" (Responses: No; Yes, I considered quitting but did not leave; Yes, I left a position), and "Are you considering leaving your position now?" (Responses: No; Yes).

2.3. Analysis

Moral distress scores for each profession were summarized by a frequency distribution, and median moral distress scores by site were stratified by profession. To determine the dominant factor in the moral distress score, we plotted the scores for frequency versus level of disturbance for the overall moral distress item from each respondent. To determine the strongest determinants of the moral distress score, we summed the scores for the individual survey items for each professional group within each ICU, and then ranked these summed scores. Then, we plotted the median and interquartile range of the hospital ranks for each item, by professional group. These ranks were plotted from lowest median rank number (highest score) to highest (lowest score) and tied median values were plotted in order of the 75th percentile (lowest to highest rank number).

For each professional group, 2 hierarchical regression models that were clustered by hospital were used to summarize the relationship between each individual's moral distress score (dependent variable) and: age and sex; and age, sex, and years of experience (to adjust years of experience for age). Similar hierarchical logistic regression models for each professional group were used to summarize the relationship between moral distress score (explanatory variable) and past or present tendency to leave the job (dependent variables).

Approval to conduct this project was obtained from the research ethics board at each participating hospital.

3. Results

The response rates to the moral distress surveys were the following: nurses—428/870 (49%); other health professionals—211/452 (47%); physicians—30/68 (44%). Most of the nurses and other health professionals were female whereas most of the physician respondents were male (Table 1). In addition, nurses and other health professionals had been working in their ICU for a shorter period than had the physicians (Table 1).

Nurses and other health professionals had higher moral distress scores than physicians (median [interquartile range]): nurses: 83 (55,119); other health professionals: 76 (48, 115); physicians: 57 (45, 70); Fig. 1). There were no obvious differences in moral distress scores among the sites for any of the professional groups but there was wide variation in scores within some of the sites (Supplementary Fig. 1). The relation between level and frequency of disturbance indicates that overall moral distress scores are due mostly to level of disturbance (Fig. 2). The highest moral distress scores (lowest rank number) for individual items on the Moral Distress Scale were for items related to cost control (#1: Provide less than optimal care due to pressures from administrators or insurers to reduce costs.) and end-of-life care (#2: Witness healthcare providers giving "false hope" to a patient or family; #3: Follow the family's wishes to continue life support even though I believe it is not in the best interest of the patient; #4: Initiate extensive life-saving actions when I think they only prolong the dying process; Supplementary Fig. 2).

The multivariate analyses showed that age is inversely associated with moral distress, but only in other health professionals; years of experience is directly associated with moral distress, but only in nurses (Table 2). The moral distress score is directly related to the tendency to leave the job, both past and present, but statistically significant only for nurses and other health professionals (Fig. 3; Table 3). The percentages of respondents who indicated that they had considered leaving or had left a job in the past due to moral distress were 52% for nurses, 39% for other health professionals, and 27% for physicians. The percentages of respondents who indicated that they were considering leaving a job now due to moral distress were 18% for nurses, 10% for other health professionals, and 7% for physicians.

4. Discussion

Moral distress is the powerlessness, anger, and guilt that health care professionals experience when they are unable to practice according to their ethical standards [5,6]. Moral distress occurs in the context of interactions between individuals in fiscally constrained workplaces with increasingly ill patients, and challenging differences in power dynamics among health care personnel [7,8]. This context creates ethical conflicts

Table 1
Demographic characteristics of respondents

	Nurses	Other health professionals	physicians
Number of respondents	428	211	30
Male (%)	13	31	87
Age (mean years [SD])	41 (10)	37 (11)	47 (8)
Clinical experience (median years [interquartile range])	5 (2, 11)	3 (2, 7)	10 (5, 16)
Percent working less than a year in current unit	11	12	3