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Frequency and Severity of Moral Distress in Nephrology Fellows: A National Survey

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Abstract

Introduction: Moral distress is a negative affective response to a situation in which one is compelled to act in a way that conflicts with one's values. Little is known about the workplace scenarios that elicit moral distress in nephrology fellows.

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Author Contributions

All authors have made substantial contributions to this manuscript. Fahad Saeed: idea generation, IRB protocol, survey design, and manuscript writing. Paul Duberstein: survey design and manuscript writing. Valerie Lang: manuscript review and editing. Ronald Epstein: manuscript review and editing. Scott Liebman: IRB protocol, survey design, survey distribution, and manuscript writing.

Statement of Ethics

The current study was approved by the University of Rochester IRB.

Conflict of Interest Statement

The authors have no conflicts of interest to disclose.

Prior Abstract Publication/Presentation

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Methods: We sent a moral distress survey to 148 nephrology fellowship directors with a request to forward it to their fellows. Using a 5-point (0–4) scale, fellows rated both the frequency (never to very frequently) and severity (not at all disturbing to very disturbing) of commonly encountered workplace scenarios. Ratings of ≥3 were used to define "frequent" and "moderate-to-severe" moral distress.

Results: The survey was forwarded by 64 fellowship directors to 386 fellows, 142 of whom (37%) responded. Their mean age was 33 ± 3.6 years and 43% were female. The scenarios that most commonly elicited moderate to severe moral distress were initiating dialysis in situations that the fellow considered futile (77%), continuing dialysis in a hopelessly ill patient (81%) and carrying a high patient census (75%), and observing other providers giving overly optimistic descriptions of the benefits of dialysis (64%). Approximately 27% had considered quitting fellowship during training, including 9% at the time of survey completion.

Conclusion: A substantial majority of nephrology trainees experienced moral distress of moderate to severe intensity, mainly related to the futile treatment of hopelessly ill patients. Efforts to reduce moral distress in trainees are required.

Keywords

Burnout; Trainees; Nephrology fellowship programs; Moral stress

Introduction

In 1984, Andrew Jameton defined moral distress as "the painful psychological disequilibrium that results from recognizing the ethically appropriate action, yet not taking it, because of obstacles such as an inhibiting medical power structure, institution policy, or legal considerations" [1]. The definition proposed by Jameton called attention to constraints impeding moral action(s), but others urged incorporating uncertainty-related moral distress [2], a critical precursor of threat to both personal and professional integrity [3]. Uncertainty-related moral distress is experienced while facing difficulty with decision-making or choosing the right moral action [4, 5]. To illustrate both constraint- and uncertainty-related moral distress, consider a situation in which physicians confront an ethical situation with no clear answer (uncertainty-related moral distress). In response to the moral duty to do the right thing, they often initiate a process of moral deliberation; interference with this process due to factors such as institutional cultural constraints, social pressure to conform, and fear of authority among others (constraint-related moral distress) may result in a feeling of powerlessness or of being unable to act with integrity – potentially leading to moral distress, including feelings of anxiety, fear, sadness, and anger [6, 7].

Moral distress is pervasive in medical culture [5]; its consequences include poor patient care [8] and negative perceptions of an institution's ethical climate eventually causing physician burnout and attrition [9–11]. The concept of moral distress in medical care has been more frequently researched in nurses and residents than fellows [12–15]. No data are available on nephrology fellows who care for critically ill patients in collaboration with other medical teams in clinical microsystems dominated by powerful authority figures. Nephrology fellows also frequently face ethically challenging situations such as decision-

making about initiation, continuation, and withholding or withdrawing from dialysis when the benefits of dialysis are unclear. These situations may precipitate both uncertainty- and constraint-related moral distress [5]. Compared to other specialties, nephrology fellows are more likely to leave the training program before the completion of the first year [16]. We conducted the current study to identify the issues that elicit moral distress in nephrology fellows during fellowship training.

Methods and Statistical Analyses

The survey was adapted from the Moral Distress Scale-Revised (MDS-R) to focus on specific workplace scenarios relevant to moral distress among nephrology fellows [4]. From this scale [4], we selected 5 domains: (1) dialysis decision-making, (2) futility of care, (3) interdisciplinary communication, (4) perceived powerlessness, and (5) the institutional ethical environment. These domains were selected after discussions between 4 nephrology fellows, 1 renal-palliative care physician (F.S.), 1 nephrology program director (S.E.L.), and a psychologist (P.R.D.) all working at the University of Rochester Medical Center, NY, during that time. The revised questionnaire was then reviewed for clarity of content by 3 practicing academic nephrologists and the original creator of MDS-R. Minor changes were made based on their feedback. We also included questions on demographics, religious affiliation, stress management strategies, thoughts of leaving the fellowship, and prior training experience in palliative care. Fellows rated both the frequency and severity of moral distress on a 0–4 scale. For frequency, 0 was “never” and 4 was “very frequently.” For severity, 0 was “not disturbing at all” and 4 was “extremely disturbing.” Fellows were asked to rate the severity of a situation if it were to occur in their practice even if they had not experienced that particular situation. The University of Rochester Institutional Review Board approved the study.

An email was sent to all adult nephrology program directors of US nephrology fellowships with a description of the project, a link to forward the survey to all their fellows, and a request to indicate the number of fellows receiving the link. We included the following definition of moral distress at the beginning of the survey items: “Moral distress occurs when professionals cannot carry out what they believe to be ethically appropriate actions because of internal or external constraints.” Two follow-up emails were sent over a 2-week period requesting those program directors who had not forwarded the link to their fellows to do so and thanking those who did. Fellows proceeding to do the survey were deemed to assent to participate. Descriptive statistics are reported using percentages.

Results

The survey was sent to 148 nephrology fellowship directors via SurveyMonkey (San Mateo, CA, USA). Of those, 64 (43.2%) sent it to 386 nephrology fellows. The survey was returned by 154 individuals. Twelve respondents were excluded from the analyses either because they answered only the first question ($n = 11$) or did not identify as a nephrology fellow ($n = 1$). Thus, the response rate was 142/386 (37%).

Table 1 shows the demographics of the respondents. Fifty percent of the respondents were first-year fellows, 39% were second-year fellows, and 11% were in their third training year or above. Forty-five percent had attended medical school in the USA. Approximately 41% of respondents were Asian, 31% White, 12% Middle Eastern or North African, and 5% African American. Almost one-quarter (24%) reported no religious affiliation. Of the remainder, 20% identified as Muslim, 16% Catholic, 16% Christian, 15% Hindu, 5% Jewish, and 4% each as Protestant, Buddhist, or others. The total percentage is 104% as some respondents marked 2 choices (e.g., Christian and Protestant or Catholic). Sixty-three percent considered themselves to be either somewhat or strongly spiritual. The vast majority (91.5%) had some experience with palliative care during their medical training, most often through lectures during residency. Most fellows (60.6%) have had no formal exposure to palliative care since residency. Table 2 shows the frequency and severity of moral distress in the 5 domains of investigation.

Dialysis Decision-Making

Many fellows frequently witnessed other healthcare providers giving patients overly optimistic descriptions of the benefits of acute or chronic dialysis (54% for acute dialysis and 43% for chronic dialysis). The perceived severity of the distress in response to these scenarios was most often (64% for both) rated as moderate to severe. Scenarios in which fellows felt patients or their families did not have adequate information to ensure informed consent (from the patients or their families) were rated as less frequent (13.9%), although when this situation did occur, almost three-quarters of the fellows rated their distress as moderate to severe.

Futility of Care and Dialysis Withdrawal and Withholding

Frequently encountered scenarios in this domain included initiating dialysis for patients for whom they considered dialysis to be futile (50.4% encountering frequently and 76.5% rating the distress as moderate to severe), following a family's wish to continue dialysis despite the perception it was not in the patient's best interest (53.4% encountering frequently and 76.3% rating it as moderate to severe), and continuing to provide dialysis for a patient with limited prognosis when no one seems willing to make a decision to withdraw dialysis (44.8% encountering frequently and 80.7% rating it as moderate to severe). Fellows rarely encountered the scenario of withholding dialysis per family request in a patient unable to make his/her own choices when clinicians felt that providing dialysis was appropriate (8.6% saying this was frequent), although most judged that moral distress would be moderate to severe should it occur (69.6%).

Institutional/Fellowship Culture

Many fellows felt they were frequently pressured to see and write note on a patient when they felt it would not affect management (49.1%) and considered this moderately to severely distressing (43.5%). High census loads causing inability to provide quality care were perceived to occur frequently by 42.7% of fellows and 75% rated this as moderately to severely distressing.

Interdisciplinary Communication and Perceived Powerlessness

As seen in Table 2, moral distress in these domains was relatively uncommon, although fellows considered some of these scenarios to be particularly stressful, especially poor communication leading to suboptimal care, and the ethical dilemma induced when a person in authority asked them not to report medical errors or a breach of medical ethics.

Other Issues Related to Moral Distress

Table 3 shows that 75% of nephrology fellows perceive their fellowship to be stressful and 78.1% engage in some activity specifically designed to reduce stress. Approximately 27% of fellows reported thoughts about quitting fellowship at some point during their training, and a little over 9% were considering leaving at the time of survey completion, although none reported doing so in the past. Illustrative comments by fellows are shown in Table 4.

Discussion

Our study shows that moral distress in US nephrology fellows is frequent and moderate to severe in intensity and mainly related to the futile treatment of hopelessly ill patients. Respondents also expressed significant moral distress in response to poor interdisciplinary communication and institutional demands for documentation and maintaining a high patient census. A substantial number of fellows had considered leaving nephrology training at some point in the past.

We found a significant amount of distress around dialysis decision-making issues, including initiating, withholding, and withdrawing dialysis. Moral distress experience was accentuated in situations where benefits of dialysis were perceived to be “oversold” or care was considered to be futile. Dzeng and colleagues [17] found that internal medicine residents and subspecialty fellows (subspecialties not specified) felt significant distress when obligated to provide what they considered to be futile care at the end of life, describing their experiences by using words such as “torture,” “gruesome,” “cruel,” and “abuse.” At the same time, trainees also noted significant distress around scenarios involving withholding or withdrawing dialysis. As in our study, others have reported situations concerning withdrawing and withholding of dialysis to be fraught with moral distress, especially when dialysis is more likely to prolong suffering with little prospect of improving quality of life [18]. Previous studies have reported that nephrologists are more likely to withhold dialysis than withdraw it, presumably because death is not likely to be imminent at the time when dialysis is withheld, while withdrawal may be viewed as a “death sentence” [18, 19]. Future qualitative studies of nephrology fellows’ attitudes and experiences in situations causing decisional uncertainty may offer additional insights into sources of moral distress.

A concerning finding of our study was that over 27% had thought about quitting their fellowship at some point in training, and nearly one out of 10 fellows was actively considering this at the time of survey completion. Nephrology fellowship programs struggle with recruiting and retaining new fellows [16, 20]. Future studies are needed to identify the reasons why trainees consider leaving fellowships, and whether any of them are remediable by addressing the sources of moral distress identified in our study. Despite experiencing

significant amounts of stress and moral distress during nephrology fellowship, nearly 22% of nephrology fellows did not report regularly engaging in activities to cope with stress. This may be an opportunity for programs to help improve their fellows' well-being, an increasingly important priority for the American Council of Graduate Medical Education [21].

A subset of questions in the adapted Moral Distress Scale [4] explored the impact of the institution or fellowship program's culture on moral distress. Carrying a high patient census causing a perceived decrease in quality of care can likely evoke significant moral distress. In the current practice environment, most nephrology divisions face unrelenting pressure to meet financial demands and practice metrics. Hospital administrators are often perceived to be accustomed to trading off morale for dollars [22]. Fellows, by virtue of being on the front line of the nephrology workforce, presumably feel this pressure. The effect of a high patient census on the perception of the quality of care delivered and physician burnout has been noted previously [23, 24]. Our study extends the literature by showing how a high patient census may also contribute to moral distress in nephrology trainees.

Another situation related to institutional culture that fellows found morally distressing was writing progress notes on patients when perceived as unlikely to change patient management. It is possible that fellows feel that they are asked to see patients and write notes to increase financial revenue. However, we did not ask specifically what it was about perceived unnecessary note writing that contributed to moral distress. Previous studies have shown that electronic medical records had a myriad of negative consequences including less time with patients, as each note a fellow writes may detract from time with another patient [25–27]. Medical scribes may ameliorate the situation [28], but this may not be financially feasible for many academic nephrology practices. Substantive changes in required documentation or reimbursement system will be needed to ameliorate this issue [29, 30].

The current study has several strengths and limitations. An important strength is that it is the first to investigate the frequency and severity of moral distress in a national sample of US nephrology fellows. As with any other survey study, recall biases are possible. Furthermore, not all program directors forwarded the survey to their fellows, and >20 respondents skipped multiple items (Table 2). We have no data on why these items were skipped, and we did not implement a quality control mechanism to minimize missing data. Similar to the current study, in a previous study assessing burnout, fellows also skipped multiple items [31]. Additionally, our overall number of respondents is lower than previous studies on renal fellows [31, 32]. Future studies involving renal fellows might benefit from incorporating some of the recruitment techniques used by Agrawal et al. [31]. Ideally, researchers would receive support and approval from the American Society of Nephrology Training Program Directors Executive Subcommittee. Prominent nephrologists could also be asked to assist with efforts to recruit respondents. Another limitation is that although we adapted the items from a validated scale (MDS-R) [4], data on the reliability of responses to individual survey items are not available. Further, we do not have data on nonrespondents, and the demographic data of the respondents are broadly consistent with the matched applicants during the years 2017–2018 [20]. For example, the total percentage of the US trained

medical graduates (39%) reported in the American Society of Nephrology's match report is close to that of our survey (45%) [20].

This study has several implications for nephrology fellowship programs. Trainee distress is related to poor patient satisfaction [33]. Moreover, it is also plausible that students and trainees encountering morally distressed fellows will be less likely to choose nephrology. Therefore, the current study calls for further qualitative research to learn more about issues causing moral distress and explore potential strategies to mitigate it. Nephrology educators need to develop strategies and interventions to help fellows cope with moral distress and build moral resilience, "the ability to cope with crises situations and particularly crises related to moral principles" [7, 34]. These strategies will need to be implemented at multiple levels. First, at the fellowship level, fellows may benefit from a more robust education in primary palliative care skills [35]. Such training may include opportunities to improve communication skills, develop conflict resolution techniques, and learn about the Renal Physicians Association Shared Decision-Making guidelines on the initiation and withdrawal from dialysis [5, 36, 37]. These guidelines provide useful guidance to help clinicians manage many situations that frequently elicit moral distress [37]. Communication skills in discussing time-limited dialysis trials, burdensome care with little expected benefit, and withholding and withdrawing dialysis may also help alleviate moral distress [5, 38, 39]. A curriculum in narrative medicine with sessions to write stories and reflect on difficult experiences may be helpful in alleviating moral distress [15]. Second, at an institutional level, training leaders in promoting psychological safety and creating safe spaces (Balint groups or Schwartz rounds) where situations causing moral distress can be discussed without fear of retaliation may be helpful [5, 40, 41]. Some have implemented a moral distress service to reduce the consequences of moral distress and promote an ethical institutional culture [42]. In addition, institutional strategies to reduce workload to separate educational goals from financial targets may hold promise in enhancing fellows' well-being [43]. Recognizing self-doubt or ambivalence/distress about a complex situation may be a marker for good clinical care and may improve clinical outcomes [44, 45]. Hence, a distressing moral experience may be an opportunity for educators to evoke a sense of curiosity about the moral experience of a trainee, nudge them toward acceptance of this distress, and eventually learn from it to improve both physician and patient outcomes [46]. Finally, policies to discourage burdensome care with very low probability of benefit may help. The ASN leadership itself may wish to assess moral distress in trainees and practicing nephrologists, as a form of workforce surveillance. The nephrology professional societies should consider how to channel this distress into a force for change in the culture, financing, and organization of health care delivery, particularly when caring for highly complex patients who often need help with end-of-life decision-making.

In summary, nephrology fellows commonly experience situations associated with moral distress during their fellowship training. Organizational changes (e.g., reduced workload and ethical guidelines), curricular changes (emphasizing primary palliative care, communication skills, and ethical decision-making), and opportunities for reflection and self-care (e.g., Balint groups and Schwartz rounds) to help fellows reduce moral distress in practice are needed and should be a high priority for the academic nephrology community.

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Table 1.

Demographics of a national sample of nephrology fellows who responded to the moral distress survey (n = 142)

Characteristic	*N* (%)
Year of fellowship	
Year 1	71 (50)
Year 2	55 (38.7)
Year 3	11 (7.8)
Year 4	2 (1.4)
>Year 4	3 (2.1)
Age (n = 136), attended medical school in the USA	
Yes	64 (45.4)
No	77 (54.6)
Gender	
Female	61 (43)
Male	81 (57.0)
Race (by self-report)	
White	45 (31.9)
African American	7 (5)
American Indian/Alaskan native	1 (0.7)
Asian	58 (41.1)
Native Hawaiian/other Pacific Islander	1 (0.71)
Middle Eastern or North African	18 (12.8)
Multiple races	8 (5.7)
Hispanic (by self-report)	
Yes	11 (7.8)
No	130 (92.2)
Religion	
Protestant	6 (4.)
Catholic	23 (16.3)
Christian	22 (15.6)
Jewish	7 (5)
Muslim	28 (19.9)
Buddhist	5 (3.6)
Hindu	20 (14.2)
No religion	34 (24.1)
Others	6 (4.3)
Agreement with the statement: “I am a spiritual person.”	
Agree strongly	47 (33.1)
Agree somewhat	43 (30.3)
Neutral	31 (21.8)
Disagree somewhat	10 (7.0)

Characteristic	*N* (%)
Disagree strongly	11 (7.8)
Prior palliative care experience(s)	
None	12 (8.45)
Medical school lecture	59 (41.55)
Medical school clerkship or elective	32 (22.54)
Residency lecture	98 (69.01)
Lecture during a nonpalliative care fellowship	44 (30.99)
Elective during a nonpalliative care fellowship	11 (7.75)
Palliative care fellowship	1 (0.70)

Table 2.

Nephrology fellows' ratings of the frequency and degree of moral distress caused by each situation presented in the adapted Moral Distress Scales-Revised (n = 121)

Clinical situation in questionnaire	Frequency of situation*, *n* (%)			Severity of moral distress*, *n* (%)		
	never (0)	rarely to sometimes (1–2)	often to frequently (3–4)	none (0)	mild to low moderate (1–2)	moderate to severe (3–4)
(1) Dialysis decision-making						
(a) Witness other health care providers provide overly optimistic information regarding the benefits of acute dialysis in critically ill patients	9 (7.6)	45 (38.1)	64 (54.2)	2 (1.7)	39 (33.9)	74 (64.3)
(b) Witness other health care providers provide overly optimistic information regarding the benefits of chronic dialysis	13 (11.0)	54 (45.8)	51 (43.2)	1 (0.8)	40 (35.1)	73 (64.0)
(c) Dialyze patients in a situation in which they or their family members have not been given adequate information to ensure an informed consent	35 (30.4)	64 (55.7)	16 (13.9)	1 (0.9)	30 (26.3)	83 (72.8)
(2) Futility of dialysis						
(a) Initiate renal replacement therapy when you think it is futile	10 (8.6)	48 (41.0)	59 (50.4)	3 (2.6)	24 (20.9)	88 (76.5)
(b) Follow family's wishes to continue dialysis even though you believe it is not in the best interest of a patient who does not have the capacity to make his/her own decision	4 (3.5)	50 (43.1)	62 (53.4)	0 (0.00)	27 (23.7)	87 (76.3)
(c) Continue to provide renal replacement therapy for a hopelessly ill patient when no one will make a decision to withdraw support	12 (10.3)	52 (44.8)	52 (44.8)	0 (0)	22 (19.3)	92 (80.7)
(d) Withhold dialysis per family request in a patient unable to make his/her own choices when you feel providing dialysis is appropriate	67 (57.8)	39 (33.6)	10 (8.6)	4 (3.6)	30 (26.8)	78 (69.6)
(3) Institutional or fellowship programs' culture						
(a) Feel pressure to see and write a note on a patient when you feel that your input will not change management	12 (10.3)	47 (40.5)	57 (49.1)	11 (9.6)	54 (47)	50 (43.5)
(b) Have too high a patient census such that you are unable to provide quality care	11 (9.4)	56 (47.9)	50 (42.7)	2 (1.74)	27 (23.5)	86 (75)
(c) Do procedures with inadequate supervision	91 (78.5)	18 (15.5)	7 (6.0)	13 (11.4)	18 (15.8)	83 (72.8)
(4) Interdisciplinary communication						
(a) Follow the primary physician's request not to discuss the patient's prognosis with the patient or family	63 (54.3)	43 (37.1)	10 (8.6)	3 (2.6)	34 (29.8)	77 (67.6)
(b) Witness diminished quality of care due to poor team communication	12 (10.3)	77 (62.4)	32 (27.4)	0 (0.00)	32 (28.1)	82 (71.9)
(c) Feel pressure to withhold your opinion when you disagree with the primary medical team's plan of care	25 (21.4)	61 (57.3)	25 (21.4)	1 (0.8)	40 (34.8)	74 (64.4)
(5) Power dynamics						

Clinical situation in questionnaire	Frequency of situation*, *n* (%)			Severity of moral distress*, *n* (%)		
	never (0)	rarely to sometimes (1–2)	often to frequently (3–4)	none (0)	mild to low moderate (1–2)	moderate to severe (3–4)
(a) Provide recommendations for patient care that you do not agree with based on your attending physician's opinion	24 (20.5)	77 (65.8)	16 (13.6)	4 (3.5)	47 (41.2)	63 (55.3)
(b) Take no action when a physician or nurse colleague has made a medical error and does not report it	75 (65.8)	31 (27.2)	8 (7.0)	3 (2.7)	28 (25.1)	82 (72.6)
(c) Take no action about an observed ethical issue because the involved staff member or someone in a position of authority requests that you do nothing	82 (71.3)	28 (24.3)	5 (4.3)	1 (0.89)	13 (11.6)	98 (87.5)

*The number of responses for each item is <142 as some respondents did not answer all the questions. Moreover, some participants responded to the frequency item but did not respond to the severity item.

Table 3.

Nephrology fellows' reports of their current and past training experiences (n = 142)

Have you ever left or considered quitting a nephrology fellowship because of moral distress (n = 118), n (%)	
No, I've never considered quitting or left a fellowship	86 (72.88)
Yes, I considered quitting but did not leave	32 (27.12)
Yes, I left a position	0 (0.00)
Are you considering leaving your position now? (n = 118), n (%)	
Yes	11 (9.32)
No	107 (90.68)
Do you perceive your fellowship as stressful? (n = 142), n (%)	
Yes	107 (75.35)
No	35 (24.65)
How often do you engage in activities specifically designed to reduce stress levels? (n = 142), n (%)	
Never	82 (21.8)
Once per week or less	41 (28.8)
2–3 times per week	47 (33.10)
4–6 times per week	16 (11.27)
Daily	7 (4.93)

Table 4.

Nephrology fellows' comments regarding moral distress during their fellowship

Regarding futility of care
Having to go into the hospital overnight to see a patient for urgent dialysis who is well known to our nephrology practice to be a very noncompliant dialysis patient. The patient will then undergo dialysis as the patient pleases (i.e., shorten dialysis from the prescribed 3–2 h or refuses dialysis altogether even though the fellow drives in to see the patient overnight). However, because the patient is a patient of the attending physicians at the practice, fellows are forced to see them though there is futility in doing so. This has occurred twice (to my colleagues) in my first 3 months of fellowship
Dealing with critically ill and dying patients of any stripe causes some moral injury and sometimes distress
On a heavy service, I had about one patient dying every 2 days for 2 weeks in a row (i.e., about 8 deaths). This caused me a lot of moral distress, and it made me question the purpose of all we do. It was difficult to talk about this with anyone and I felt very lonely
Regarding power dynamics
Being bullied and abused by faculty – beyond extremely stressful
In relationship to what is stated above, I feel moral distress when I experience inconsistencies amongst different providers about appropriate scenarios to go see the patient overnight. Some attendings prefer all patients to be seen, no matter how urgent or nonurgent the consultation may be, while others are more reasonable. I think it's disturbing that fellows are used in this manner. I suggest that if the fellow must go in to see the patient at night, the attending should as well as supervision