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Moral distress among physicians working in pediatric intensive care

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Abstract

This study investigates and interprets the occurrence of moral distress among pediatric physicians working in a Pediatric Intensive Care Unit. A cross-sectional, exploratory, descriptive research was conducted to survey the presence of moral distress among 43 physicians from a specific therapy unit assessed by the Moral Distress Scale Revised. Most responses regarding the presence of moral distress revolved around end-of-life issues, painful life-prolonging situations, poor team communication, professional health problems, discomfort with uncertain prognoses, need for multidisciplinary visits and patient suffering. We sought evidence in research on certain situations that can trigger moral distress at different intensities and frequencies among professionals, according to some variables.

Keywords: Intensive care units, Pediatric. Stress, physiological. Stress, psychological. Bioethics.

Resumo

Angústia moral entre médicos em terapia intensiva pediátrica

Este estudo tem como objetivo entender e interpretar a ocorrência de angústia moral entre médicos intensivistas pediátricos que atuam em uma Unidade de Terapia Intensiva Pediátrica. Trata-se de uma pesquisa exploratória e descritiva, de abordagem quantitativa e recorte transversal, com foco na aplicação de um instrumento de pesquisa baseado na Moral Distress Scale Revised para levantamento da presença de angústia moral em 43 médicos de determinada unidade de terapia. A maioria das respostas do instrumento de pesquisa quanto à presença de angústia moral esteve relacionada a questões de fim de vida, situações de prolongamento penoso da vida, comunicação deficiente entre a equipe, problemas de saúde do profissional, desconforto com prognósticos incertos, necessidade de visitas multiprofissionais e sofrimento do paciente. O intuito foi buscar evidências na pesquisa sobre determinadas situações que podem ser desencadeadoras de angústia moral com intensidades e frequências distintas entre os profissionais, de acordo com algumas variáveis.

Palavras-chave: Unidades de terapia intensiva pediátrica. Estresse fisiológico. Estresse psicológico. Bioética.

Resumen

Angustia moral entre los médicos en cuidados intensivos pediátricos

Este estudio tiene como objetivo comprender e interpretar la angustia moral entre los médicos en cuidados intensivos pediátricos que trabajan en una Unidad de Cuidados Intensivos Pediátricos. Se trata de una investigación exploratoria, descriptiva, de enfoque cuantitativo y transversal, centrada en la aplicación de una herramienta basada en la *Moral Distress Scale Revised* para identificar la presencia de angustia moral en 43 médicos(as) de una unidad específica. La mayoría de las respuestas a la herramienta de evaluación sobre la presencia de sufrimiento moral giraron en torno a cuestiones del final de la vida, situaciones dolorosas que prolongan la vida, mala comunicación entre el equipo, problemas de salud profesional, malestar ante pronósticos inciertos, necesidad de visitas multidisciplinarias y sufrimiento del paciente. El objetivo fue buscar evidencias sobre determinadas situaciones que pueden desencadenar angustia moral con diferentes intensidades y frecuencias entre los profesionales según algunas variables.

Palabras clave: Unidades de cuidado intensivo pediátrico. Estrés fisiológico. Estrés psicológico. Bioética.

The authors declare no conflict of interest.

Research

Pediatric intensive care units (PICUs) are acknowledged as environments designed for intensive treatment, the ongoing observation of recurring distress, care often deemed futile, and elevated levels of chronic disability in patients post-discharge; challenges that are exacerbated by workplace issues such as misalignment in medical approaches, ineffective and inadequate communication, conflicts in decision-making, unrealistic expectations for outcomes, and lack of resources or staff [1]. With advancements in other pediatric medical and surgical specialties, more children are surviving highly complex illnesses and surgical interventions, thereby heightening the likelihood of moral distress (MD) within PICUs [2].

Andrew Jameton first described moral distress in 1984 while studying nursing professionals. It is a phenomenon also characterized as *distress*, anguish, suffering, emotional and psychological turmoil, experienced in situations where healthcare professionals recognize the most ethical course of action but are unable to implement it due to external barriers—often institutional—and sometimes due to personal constraints. Such circumstances create a sense of helplessness or incapacity to carry out the action deemed ethically appropriate, impacting their moral integrity and resulting in significant repercussions for the professional [3].

Emotions associated with MD may encompass anger, discouragement, guilt, frustration, helplessness, and work absenteeism. Moreover, they can manifest as physical symptoms, such as muscle pain, diarrhea, sleep disturbances, and fatigue. It is worth noting, however, that in many work environments, several indicators of distress are deemed "common" by colleagues or the professionals themselves, including headaches, insomnia, allergies, hair loss, persistent irritability, and so forth [3].

The work of pediatric intensivists can be emotionally draining, as they witness the daily suffering, fear, pain, and sometimes inadequate treatment of children. One may endure the psychological strain of grappling with a shortage of nurses, supplies, and institutional protocols, alongside heightened demands from family members and frustration stemming from interpersonal conflicts, among other challenges [1]. Thus, the experience of caring for a critically ill child in the PICU is profoundly intricate, involving issues of communication, hierarchy, adaptation, alignment of differing personal viewpoints, ambiguity regarding technology usage, and the necessity for emotional support for all parties involved [4].

In this context, it is evident that MD is prevalent in clinical practice, as healthcare constitutes an inherently ethical endeavor involving numerous actors, such as patients, family members, healthcare students, nutritionists, physiotherapists, psychologists, nurses, physicians, and other professionals within the field [5].

Crucially, interdisciplinary research on MD indicates its significance across various healthcare disciplines. Therefore, promoting the cultivation of attitudinal skills among physicians working in the PICU is imperative. Healthcare professionals must remain attuned to situations that engender MD for colleagues in diverse disciplines. Health policymakers, health academic curricula, and administrators should explore avenues to reduce the prevalence of moral distress by promoting interprofessional perspectives [6].

This study is meant to investigate the prevalence of moral distress among physicians working in a pediatric intensive care unit and analyze the frequency and severity of this phenomenon. This was accomplished through the utilization of a research tool based on the Moral Distress Scale Revised (MDS-R), which was administered to pediatric intensive care physicians and residents.

Method

When examining the literature on measuring moral distress, there is the Moral Distress Scale (MDS), first introduced by Corley [5]. Initially designed to gauge MD among intensive care nurses, this tool underwent revision in 2010 to broaden its applicability to all healthcare professionals in critical care settings. Termed the Revised Moral Distress Scale (MDS-R), it includes versions tailored for adult nurses, adult physicians, pediatric nurses, and pediatric physicians. It has been employed in numerous studies and delivered robust reliability and validity [7,8].

This is an exploratory and descriptive research, with a quantitative and cross-sectional approach,

based on the MDS-R. The first step in developing the research was the construction of its instrument (questionnaire), referred to as the beta (initial) version. This version was assessed by a panel of seven specialists in pediatric intensive care medicine and medical education, including professors in higher education in medicine, masters and PhDs. Their evaluation aimed to determine the relevance, clarity, and alignment of the questions with the research objectives, incorporating observations from these professionals. Following feedback, the experts' responses were analyzed, and compiled, and their suggestions were incorporated to enhance the instrument.

The instrument was then forwarded via email to the experts participating in the panel for further consideration. Upon completion of this phase, the alpha (final) version was developed and disseminated through the Google Forms platform to pediatric intensive care physicians and residents, with responses obtained following acceptance of informed consent. Concurrently, the content validation of the research instrument was conducted using a statistical method.

Once data were collected, descriptive statistical analysis was performed to determine response frequencies and correlations, calculated as percentages, with proportions presented in tables. With the answers in hand, a quantitative analysis, specifically focusing on individuals experiencing the MD phenomenon, was conducted to generate precise and reliable measurements for statistical examination.

The statistical software R Version 3.6.1 was utilized for all analyses, chosen for its accessibility as free and open-source software [9].

Results

Regarding the application of the scale to evaluate MD, the situations most frequently seen among professionals are presented in Chart 1.

Regarding the application of the scale to evaluate MD, the situations felt most intensely by all professionals are described in Chart 2.

Chart 1. Frequency

Question 9: Have you ever witnessed cases in which the patient's life is painfully prolonged due to family imposition or lack of consensus among the physicians involved?	63%
Question 10: Have you ever witnessed any degree of decline in the quality of patient care due to a failure in communication between the multidisciplinary team?	49%
Question 12: Have you ever felt uncomfortable facing a patient with an unfavorable and uncertain prognosis?	47%
Question 2: Do you have or have you ever had physical signs of fatigue, diarrhea, muscle pain, sleep disturbances, irritability, or headache, which may have been caused by work?	47%
Question 6: Do you feel uncomfortable accepting (following) orders to submit the patient to tests or treatments that you deem unnecessary?	44%

Chart 2. Intensity

Question 8: Do you participate in visits or meetings where patients' cases are discussed openly among all healthcare professionals involved in the individual's care (multidisciplinary visit)?	63%
Question 3: Have you ever been absent from work due to any of the symptoms presented in question 2?	56%
Question 7: Do you believe that, within the ICU, your opinions are not heard and accepted?	42%
Question 5: Have you ever witnessed a lack of materials, staff, equipment, or medication needed for the provision of patient care?	35%
Question 9: Have you ever witnessed cases in which the patient's life is painfully prolonged due to family imposition or lack of consensus among the physicians involved?	33%

In addition to the two assessment categories, the following variables were also considered: frequency and intensity, along with other factors such as gender, age group (above or below 36 years), length of service at the PICU (over or under three years), and weekly working hours (over or under 30 hours per week).

Most research participants were female, comprising 79.1% of the sample, while male participants accounted for 9%. Among the respondents, 86% were PICU staff physicians and 6% were resident physicians, with the majority falling below the age of 35 (53.5%). Furthermore, 55.8% reported a length of service at PICU exceeding six years, and 44.2% reported weekly working hours exceeding 40 hours. An intriguing finding was that 51.2% of professionals were either knowledgeable or had heard about MD, whereas 48.8% were unaware of the term, indicating a notable lack of familiarity with MD within this medical environment.

Discussion

Based on the analyzed data, it is evident that the survey responses align with existing literature, underscoring the significance and universality of this topic. A study involving PICU resident physicians revealed that most respondents were female (85%), under 40 years old (70%), worked full-time (86%), and had over five years of experience with intensive care (63%) [10].

Similarly, another survey conducted among health professionals in PICU found a predominance of female respondents (88.6%), averaging 41.6 years old and 15.9 years of work experience. This trend of higher female participation resonates with our research findings, despite variations in average age [11].

Unlike this research, a cross-sectional study conducted using a questionnaire on MD in a hospital in Saudi Arabia involving physicians, nurses, and other health professionals, found no statistically significant gender differences regarding the presence of MD, which may suggest cultural influences shaping MD perceptions [12].

Several factors linked to the emergence of MD are reiterated in the literature, such as adhering to family wishes for aggressive treatment despite professional beliefs regarding its appropriateness for the patient. Findings indicate that adopting overly aggressive treatment at the end of a patient's life is among the most morally distressing situations for all physicians. The other questions are referred to in the general data analysis [8].

According to another study, the most distressing situations include requesting aggressive treatment when it is not the best alternative for the child, poor team communication, and lack of continuity from the medical care provider [13].

Some authors propose that physicians with more experience exhibit lower levels of MD. This finding could be attributed to the prevalence of residents, who typically have less autonomy in decision-making compared to senior physicians. However, another study focusing solely on experienced attending physicians did not find a correlation between MD levels and years of experience, suggesting the need for further investigation with a larger sample size [10,14].

It is crucial to emphasize that the intensity of clinical encounters triggering moral distress holds greater significance than the frequency of these occurrences, both in adult ICUs and PICUs studies. This underscores the notion that certain situations may occur with a certain frequency but can affect professionals to varying degrees. Sometimes, it is the less common events that evoke the most discomfort. This aligns with the descriptive analysis of the research, indicating variations in how frequently and intensely these situations impact professionals [3].

The research results underscore the significance of multidisciplinary consultations, emphasizing the importance of communication and information sharing for informed decision-making, alongside the provision of emotional support and acceptance of choices. Challenges arise when professionals encounter difficulties in addressing the unique needs of families or colleagues, irrespective of potential inconveniences or personal disagreements with treatment plans [4].

A qualitative study conducted among PICU team members, spanning both community and tertiary care settings, identified various factors contributing to moral distress. These included care concerns provided by other healthcare professionals, the volume of care delivered,

inadequate communication, inconsistent care plans, and uncertainties surrounding end-of-life decision-making [15].

For optimal healthcare delivery within a collegial, team-based framework, all team members must comprehend not only each professional's technical role but also the ethical dilemmas perceived from different professional perspectives. Physicians, in particular, must grasp how their attitudes or directives impact nurses, social workers, and other team members in the moral landscape of healthcare [6].

Observations regarding the variable of length of service indicate that the burden of MD precipitates feelings of anger, frustration, incompetence, and somatic manifestations such as headaches, sleep disorders, and impaired social relationships [16].

Furthermore, this discomfort manifests in various symptoms and negative health repercussions, including irritability, crying, heartburn, nausea, tachycardia, wheezing, lower back and leg pain, physical and mental fatigue, reduced appetite, insomnia, work-related dreams, premature aging, and increased medication usage. These sentiments underscore the psychological distress experienced by these healthcare workers, highlighting the imperative for psychosocial interventions [16].

A narrative investigation study examining moral distress within PICU teams revealed that professionals identified the lack of organizational support as a significant source of interdisciplinary conflicts, alongside insufficient multidisciplinary discussions involving all stakeholders in patient care. Given the need for numerous professionals to provide round-the-clock care in the ICU, logistical challenges are considerable [1].

As noted in the research, inadequacies in resources, supplies, and medications pose moral dilemmas for physicians. A dearth of strategies for addressing ethical issues and a low tolerance for conflict and criticism from colleagues can impede crucial ethical dialogues and result in unsatisfactory resolutions to challenging ethical dilemmas [14].

The cumulative exposure to morally distressing situations, compounded by demanding workdays, can erode resilience—the ability to reframe encountered tensions [16].

The primary challenge for the medical community lies in fostering a culture wherein the discussion and management of ethically and emotionally complex issues are embraced and encouraged. However, these uncomfortable situations are not always adequately expressed, underscoring the need for dialogue and research initiatives aimed at raising awareness of MD [6].

Final considerations

When interpreting physicians' perspectives on moral distress within a PICU setting using a research instrument analyzed by an expert panel and validated through statistical methods, it became evident from participants' responses that MD is indeed a prevalent phenomenon in the studied ICU. This assertion was supported by statistically significant data across various study categories and variables.

Of particular significance was the emphasis placed on the necessity for physicians to actively engage in visits and meetings where patient cases are openly discussed among all healthcare professionals involved in care, commonly known as multidisciplinary visits. This finding was not only evident in the overall data analysis but also relation to gender and age group variables within the descriptive analysis, underscoring the importance of interprofessional collaboration in pediatric critical care settings.

Consequently, there is a suggestion to move beyond simply labeling MD as negative and instead focus on strategies to build or enhance resilience within work environments. While MD is acknowledged as a genuine concern, it is also recognized that it may sometimes be exaggerated or misunderstood. Perhaps experimenting with MD can help test sensitivity to moral challenges, and could be a source of growth and learning [11].

Finally, there is hope that this research can foster a genuine interest among readers about this very important topic, acting as an incentive for other work, including ideas for interventions based on this data, to mitigate this condition present in PICU, namely MD.

References

1. Garros D. Moral distress in the everyday life of an intensivist. Front Pediatr [Internet]. 2016 [acesso 25 out 2023]4:91. DOI: 10.3389/fped.2016.00091
2. Epstein D, Brill JE. A history of pediatric critical care medicine. Pediatr Res [Internet]. 2005 [acesso 25 out 2023];58(5):987-96. DOI: 10.1203/01.PDR.0000182822.16263.3D
3. Santos RP, Garros D, Carnevale F. Difficult decisions in pediatric practice and moral distress in the intensive care unit. Rev Bras Ter Intensiva [Internet]. 2018 [acesso 25 out 2023];30(2):226-32. DOI: 10.5935/0103-507X.20180039
4. Lee KJ, Dupree CY. Staff experiences with end-of-life care in the pediatric intensive care unit. J Palliat Med [Internet]. 2008 [acesso 25 out 2023];11(7):986-90. DOI: 10.1089/jpm.2007.0283
5. Corley MC, Elswick RK, Gorman M, Clor T. Development and evaluation of a moral distress scale. J Adv Nurs [Internet]. 2001 [acesso 25 out 2023];33(2):250-6. DOI: 10.1046/j.1365-2648.2001.01658.x
6. Houston S, Casanova MA, Leveille M, Schmidt KL, Barnes SA, Trungale KR *et al*. The intensity and frequency of moral distress among different healthcare disciplines. J Clin Ethics [Internet]. 2013 [acesso 25 out 2023];24(2):98-112. DOI: 10.1086/JCE201324203
7. Hamric AB, Borchers CT, Epstein EG. Development and testing of an instrument to measure moral distress in healthcare professionals. AJOB Prim Res [Internet]. 2012 [acesso 25 out 2023];3(2):1-9. DOI: 10.1080/21507716.2011.652337
8. Epstein EG, Whitehead PB, Prompahakul C, Thacker LR, Hamric AB. Enhancing understanding of moral distress: the measure of moral distress for health care professionals. AJOB Empir Bioeth [Internet]. 2019;10(2):113-24. DOI: 10.1080/23294515.2019.1586008
9. R Foundation. The R Project for Statistical Computing [Internet]. Vienna: R Foundation; [data desconhecida] [acesso 25 out 2023]. Disponível: http://www.R-project.org/
10. Larson CP, Dryden-Palmer KD, Gibbons C, Parshuram CS. Moral distress in PICU and neonatal ICU practitioners: a cross-sectional evaluation. Pediatr Crit Care Med [Internet]. 2017 [acesso 25 out 2023];18(8):318-26. DOI: 10.1097/PCC.0000000000001219
11. Almutairi AF, Salam M, Adlan AA, Alturki AS. Prevalence of severe moral distress among healthcare providers in Saudi Arabia. Psychol Res Behav Manag [Internet]. 2019 [acesso 25 out 2023];12:107-15. DOI: 10.2147/PRBM.S191037
12. Hamric AB, Blackhall LJ. Nurse-physician perspectives on the care of dying patients in intensive care units: collaboration, moral distress, and ethical climate. Crit Care Med [Internet]. 2007 [acesso 25 out 2023];35(2):422-9. DOI: 10.1097/01.CCM.0000254722.50608.2D
13. Trotochaud K, Coleman JR, Krawiecki N, McCracken C. Moral distress in pediatric healthcare providers. J Pediatr Nurs [Internet]. 2015 [acesso 25 out 2023];30(6):908-14. DOI: 10.2147/PRBM.S191037
14. Monteiro JK, Oliveira ALL, Ribeiro CS, Grisa GH, Agostini N. Adoecimento psíquico de trabalhadores de unidades de Psicol Ciênc [Internet]. 2013 [acesso 25 out 2023];33(2):366-79. DOI: 10.1590/S1414-98932013000200009
15. Dryden-Palmer K, Moore G, McNeill C, Larson CP, Tomlinson G, Roumeliotis N *et al*. Moral distress of clinicians in Canadian pediatric and neonatal ICUs. Pediatr Crit Care Med [Internet]. 2020 [acesso 25 out 2023];21(4):314-23. DOI: 10.1097/PCC.0000000000002189
16. Førde R, Aasland OG. Moral distress among Norwegian doctors. J Med Ethics [Internet]. 2008 [acesso 25 out 2023];34(7):521-5 DOI: 10.1136/jme.2007.021246

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Newton Carvalhal Santos Junior worked on the initial idea for the article, conducted the research, and completed the final writing. Roberto Esteves contributed to discussions and reflections on the organization, delimitation of the theme, joint elaboration of the text, and final evaluation of the article. Izabel Coelho and Edson Arpini participated in discussions and reflections on the organization and joint elaboration of the text and the final evaluation of the article.

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