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Obstacles to Ethical Practice: Understanding Moral Stress among Health Care Workers in COVID-19

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Abstract

Healthcare professionals (HCWs) often experience moral stress and distress when faced with ethical dilemmas in which aligning their actions with their core moral beliefs becomes difficult. During major crises like disasters or pandemics, these ethically complex moments become far more common, mainly due to the growing mismatch between what patients need and the limited resources available. That said, the concepts of moral stress and moral distress are applied inconsistently across the literature, with definitions that vary widely and remain ambiguous. This investigation seeks to explore and scrutinize how HCWs themselves portray morally difficult situations (referred to as moral stress), while also sharpening a precise definition via detailed conceptual examination. Qualitative information was gathered via a survey completed by 16,044 Swedish HCWs who took part in an online COVID-19 training program during autumn 2020. In all, 643 open-ended written responses detailing experiences of moral stress were analyzed.

Content analysis revealed three central themes: (1) “Seeing, but being prevented from acting; feeling insufficient/inadequate and constrained in the profession,” (2) “Someone or something hindered me; organizational structures as an obstacle,” and (3) “The pandemic hindered us; pandemic-related obstacles.” Together, these three themes align under one overarching theme: “Being prevented from providing good care.” This overarching theme frames moral stress as different types of barriers that stop healthcare workers from offering high-quality care to those in need and from following through on their natural empathic instincts in a professional capacity. The themes are reviewed alongside well-known definitions of moral stress and assessed using conceptual analysis techniques. From this process, an improved definition of moral stress was created, drawing directly from one of the previously established definitions. On the strength of the research outcomes and the conceptual evaluation, the newly formulated definition is argued to meet essential criteria for adequacy. It is critically important to establish a clear and consistent understanding of moral stress, a concept that has been interpreted in varied ways across different fields. Such clarity is necessary to ensure we are all referring to the same thing and to support the creation of targeted strategies that help prevent the damaging consequences associated with this issue.

Keywords: Moral stress, Moral distress, Ethical/moral challenges, Health care workers, COVID-19 pandemic, Conceptual analysis

Introduction

When faced with ethical dilemmas in which aligning their actions with personal moral beliefs or professional ethical codes proves challenging, health care workers (HCWs) may experience short-lived moral stress. Yet, moral distress — a more persistent and harmful stress response — can develop when such morally demanding situations occur repeatedly, with high intensity, or over extended periods [1]. During crises like disasters and pandemics, the likelihood of encountering morally difficult situations rises sharply. This stems from resource shortages that create a significant mismatch between what patients need and what the healthcare system can actually deliver [2]. Despite time and resource constraints, HCWs continue to make every effort to deliver excellent patient care under these conditions [3]. To improve understanding of moral stress and related ideas, establishing a precise definition is essential. Such conceptual clarity also supports consistent measurement of the phenomenon and helps create practical organizational strategies and assistance for HCWs in handling moral stressors. Moral stress is not considered a clinical diagnosis. It differs from other stress responses because its origin lies specifically in moral or ethical conflicts rather than in general stressors [4, 5]. A well-defined concept of moral stress will enable researchers and HCWs to better recognize and tackle the distinctive challenges that arise in healthcare environments, especially during periods of crisis.

The definitions of moral stress and moral distress differ across studies and have continued to develop since Jameton [6, 7] first introduced the idea: “Moral distress occurs when an individual recognizes the morally correct action but organizational barriers make it extremely difficult to carry it out”. A more comprehensive definition was later proposed by Kälvemark [8]: “Conventional negative stress reactions that arise in situations containing an ethical aspect, where the healthcare provider senses that he or she cannot protect all the relevant interests involved.” [8]. Nevertheless, the literature still lacks agreement and precision concerning this issue. A 2020 review of moral stress confirmed that definitions and related concepts continue to show considerable variation [9].

A more recent study emphasized that these inconsistent concepts hinder the implementation of effective strategies to prevent and minimize the harmful effects of moral stress [10]. Therefore, it is vital to examine HCWs’ own accounts of morally stressful experiences during crises such as the COVID-19 pandemic. These descriptions can help strengthen and advance the concept. The definition offered by Kälvemark [8] emerged from focus group discussions with HCWs and focused on their routine work in ordinary healthcare settings. To the best of our knowledge, however, the current study is among the first conceptual analyses to draw directly on HCWs’ personal reports of concrete, morally stressful situations experienced during a major health crisis such as the COVID-19 pandemic. Conceptual analysis is frequently employed to sharpen definitions and concepts, transforming vague or complex ideas already in circulation into more precise formulations [11, 12]. Evaluating the most widely used definitions and comparing them with HCWs’ own descriptions of morally stressful situations can provide greater clarity on the concepts and indicate whether a more refined definition is required. In this study, the term moral stress is applied in a broad sense that encompasses moral distress. This choice reflects the fact that Swedish does not distinguish between moral stress and moral distress (as reflected in the survey question linked to the free-text responses). Furthermore, the study adopts the position that moral distress arises from the frequency, severity, and duration of moral challenges. For this reason, the primary focus here is on HCWs’ descriptions of the morally stressful situations themselves.

This study aims to identify and examine Swedish HCWs’ accounts of moral stress and to formulate a definition of moral stress through conceptual analysis.

Materials and Methods

Procedure

At the request of the Swedish National Board of Health and Welfare, Karolinska Institutet developed an online training course on COVID-19 for Swedish HCWs and administrative and support personnel [13]. In September 2020, 153,300 individuals participated in the course. Those participants who identified themselves as HCWs were subsequently invited via email to complete a web-based survey between September and October 2020 [14].

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The survey was conducted using the secure, web-based Research Electronic Data Capture (REDCap) tool, hosted by Karolinska Institutet [15, 16].

Participants

Respondents were drawn from every part of Sweden. Owing to incomplete information, it proved impossible to determine the percentage of the eligible healthcare workforce that responded among the roughly 153,000 people who received the survey. Of the 23,425 submissions received, 6,551 had to be discarded because the demographic section was left unfinished. An additional 832 duplicate entries were removed, yielding a final dataset of 16,044 individuals. Inclusion was restricted to those who answered "yes" to the opening query asking whether they had encountered such a situation [involving moral stress] (n = 8721), as only these participants were presented with the option to supply a written description (the exact exclusion rules are clarified later). The bulk of respondents held frontline clinical positions that involved hands-on patient interaction, for instance, health care assistants, assistant nurses, registered nurses, and doctors. Supervisory and coordination roles represented only a small fraction. Other patient-related professions not directly tied to COVID-19 treatment, such as dentists, dental nurses, and radiologists, were also present. Females made up the large majority of the sample (85%) [14].

The present work centers on a qualitative review of specific survey sections on moral stress. Separate reports cover the quantitative findings on moral stress and moral distress.

In this study, open-ended written replies in Swedish were collected and examined in relation to the second query (outlined in detail earlier). The open field invited respondents to complete the sentence: "I have experienced moral stress in different types of situations, namely…". The choice to examine only the responses to this specific item stems from its focus on varied understandings of moral stress. As a result, the number of open-text entries studied matches exactly the number of surveys that included them (each survey contributed precisely one analyzable free-text response). Altogether, 826 free-text answers were collected. Of these, 183 proved unusable because they contained nothing more than a single word or brief remark, failed to address moral stress at all, or offered too little substance for examination — typical examples being "urgent situation" or simply "difficult".

Survey questions

Items concerning moral stress were formulated based on outcomes from a scoping review [1] and an earlier qualitative investigation [17] that explored the nature of moral stress and moral distress, and their effects among Swedish healthcare staff involved in disaster response. The questionnaire underwent an initial pilot test with four professionals experienced in disaster healthcare and was subsequently adjusted. A second pilot round was then conducted with four Swedish healthcare workers who had been active during the ongoing pandemic, after which further refinements were made.

To help distinguish moral stress from other stress responses, participants received the following explanatory text before the relevant questions: "Certain circumstances can stop you from behaving in ways that match your moral convictions. Such circumstances can trigger moral stress, which may involve feelings of powerlessness, irritation, helplessness, or anger and sorrow. Examples include being forced to choose among options that all appear incorrect, being blocked by outside factors from following what you believe is right, or taking part in choices that contradict your principles because of someone else's decisions or behavior." After this introduction, participants used a five-point Likert scale (never, rarely, occasionally, often, very often) to indicate how frequently they had "been in situations of moral stress." They then assessed the intensity of moral stress they associated with five particular scenarios on a seven-point Likert scale: "There may be situations where you cannot carry out what you consider morally correct in your choices or behavior. Please rate how stressful you found each of the following situations." The five scenarios were: (1) Ethical dilemma: when all the alternatives felt wrong, but I had to act/make a decision; (2) I made or was included in a decision that was not aligned with my moral values; (3) When other people's decisions hindered me from acting in accordance with my moral values; (4) When other circumstances hindered me, such as lack of time or materials and structural resources; and (5) When I took action, but I felt that it was not sufficient based on my moral perceptions. Once these ratings were completed, participants could optionally describe an additional situation in their own words: "I have experienced moral stress in a different type of situation, namely…".

Analysis

A content analysis was carried out on the 643 usable responses. Meaning units were extracted from the written answers and labeled with codes that summarized their essence [18]. These codes were subsequently clustered into 243 subcategories based on shared content. The subcategories were then assembled into 10 wider categories. Finally, these categories were synthesized into three overarching themes, all of which fell under a single main theme. After completing the analysis, selected quotations were translated from Swedish to English using DeepL. The translations were later verified for accuracy by a bilingual translator proficient in both languages. Within the quoted passages, square brackets signal explanatory additions, while double forward slashes "//" indicate portions that were omitted to improve readability.

Conceptual analysis

The conceptual analysis draws on a framework that lists several conditions of adequacy that any effective definition is expected to satisfy [12]. These conditions may be fulfilled to different extents. They include: (1) The definition should correspond to how the term is normally used in everyday language (language use requirement), where real-world data can provide valuable support [11]. (2) The definition should achieve the highest possible level of exactness to limit uncertainty about what does or does not belong under it (precision requirement). (3) The definition should supply a logical basis for deciding why particular phenomena are included or excluded (theory requirement). (4) The definition should make it reasonably simple, through observable evidence, to judge whether a given phenomenon fits or not (reliability requirement). (5) The definition should remain as uncomplicated and internally consistent as feasible, thereby minimizing the need for numerous exceptions or adjustments (simplicity requirement). Lastly, (6) The definition must serve a well-defined purpose (target requirement). Here, the purpose is to promote a clear understanding and support reliable empirical measurement of moral stress [12]. The process of sharpening a concept, such as moral stress, seeks to ensure it meets these standards. It should be acknowledged that the various criteria can sometimes pull in opposing directions. A common tension arises between the need for precision and the demand to stay close to ordinary language, since everyday usage is typically loose and inexact. When such conflicts occur, a reasoned argument must be provided to explain why one criterion is given priority over another in the given setting.

Results and Discussion

The content analysis uncovered three closely connected themes that together aligned with the overarching theme "Being prevented from providing good care." These three themes were: (1) "Seeing, but being prevented from acting; feeling insufficient/inadequate and constrained in the profession," (2) "Someone or something hindered me; organizational structures as an obstacle," and (3) "The pandemic hindered us; pandemic-related obstacles." The central theme portrays moral stress as arising from multiple barriers that block healthcare workers from delivering high-quality care to patients who require it and from following through on their empathic instincts in their professional capacity.

Theme 1: "Seeing, but being prevented from acting; feeling insufficient/inadequate and constrained in the profession"

This theme encompasses three categories: (1) Not being taken seriously, (2) Feeling inadequate/insufficient, and (3) Acting outside one's area of competence.

The first category, "Not being taken seriously," includes seven subcategories. It captures the irritation of being unable to resolve issues, of not having one's voice heard, of lacking trust in one's professional assessment, of feeling undervalued, or of not being listened to by supervisors or leaders when raising concerns. It also involves witnessing leadership or the employer failing to act despite clear problems, and having no way to challenge political choices.

I observed or learned about events that clashed with my moral convictions, yet I lacked the chance or means to affect them in any way.

[I] flagged serious concerns about safety and the risk of infection spreading, but no one paid attention; our supervisor was away on holiday at first and failed to grasp how dangerous the situation actually was for us.

The second category, "Feeling inadequate/insufficient," contains 43 subcategories and ranks as the second most frequent trigger of moral stress in the collected answers. This category reflects accounts of doing all that was possible yet still falling short in multiple ways — for example, being blocked from offering emotional support and proper care to patients who needed it, seeing growing isolation among patients without the ability to ease it, having insufficient time to care for patients properly, and watching patients pass away despite every effort. Participants expressed frustration over being unable to

comfort family members or provide the necessary backing to fellow staff. There were also descriptions of helplessness when healthcare workers themselves became infected with COVID-19, and feelings of powerlessness and inadequacy when non-COVID patients were sidelined or deprioritized. Especially distressing were cases where patients failed to get suitable medical treatment and when follow-up care was not available.

Patients appeared extremely lonely and cut off; as staff, we could only reduce their worry and fear to a limited degree—we simply weren't enough.

Feeling helpless in the intensive care unit as patients turned into real individuals whom others were missing deeply; when a postcard, letter, or photo was placed next to the bed // and the prognosis looked grim, knowing they had no loved one beside them, and that a short note or message from a child or parent // tore at your heart because these people were so missed… When relatives were allowed in only for a final goodbye, once the situation had worsened, and you had to stand outside the unit, guiding them on how to put on protective gear for that last visit…

The third category, "Acting outside of one's area of competence," covers 14 subcategories. These concerns stem from gaps in skills and knowledge within the professional role, caused by unfamiliarity with the illness and by staff relocation to high-demand units during the pandemic. The category also addressed difficulties arising from collaborating with new personnel who lacked proper training. Additional common sources of moral stress included being assigned excessive duties without support, observing a decline in care quality due to insufficient expertise, and being placed in unfamiliar positions without any orientation or training.

It felt ethically wrong to continue working without the necessary background experience, yet I had no choice but to try my hardest.

I had to push my already strained team members to collaborate more than usual with colleagues who had little relevant experience.

I was required to treat patients transferred from other departments where I believed my skills were inadequate, and this led to a noticeable drop in the standard of care we could offer, which triggered moral stress in me.

Theme 2: "Someone or something hindered me; organizational structures as an obstacle"

The second theme comprises three categories: (1) Decision-making, (2) Teamwork, and (3) Information and communication by organizational management.

The first category, "Decision-making," includes 26 subcategories. These describe challenges related to personal decision-making processes, flawed choices made by others, the absence of decision authority, and inaction by leaders. Respondents highlighted being compelled to decide with insufficient medical details, having to choose in line with ethical principles while violating official protocols, being unable to decide at all, recognizing necessary choices but lacking the power to make them, and feeling isolated in carrying both decisions and accountability. Moral stress also arose when staff were required to carry out mistaken medical orders or doctors' directives that conflicted with their own values, or when they had to comply with others' rulings despite foreseeing their failure. Insufficient data and unclear instructions were seen as triggers for poor choices. Additional difficulties included receiving no guidance during decision-making and sensing that higher management avoided broad-level resolutions, thereby pushing frontline healthcare workers to make tough allocation choices. It was also morally taxing to feel obligated to defend the employer's stance toward outside parties while personally disagreeing with those choices. Further sources of moral stress included cases in which patients dictated staff actions or expressed dissatisfaction with the care they received. Difficulties in judging the right course also appeared when dealing with patients who had psychiatric disorders or dementia. Those in leadership positions frequently mentioned the burden of handling decisions single-handedly.

When I have to defend a stance publicly that I realize will create extra strain for the team members who must implement it, while the organization as a whole is required to follow rules and directives.

I was pushed to make choices that violated my moral principles, and I am aware that this likely led to unnecessary deaths.

I am required to make a decision based on shaky information that might endanger lives and harm my colleagues' psychological and physical well-being.

The second category, "Teamwork," contains 15 subcategories that capture various workplace collaboration issues. Participants described a lack of drive among team members, poor communication across professional groups, inadequate coordination that resulted in wasteful use of personal protective equipment (PPE), and tension among colleagues that hampered joint efforts. Several accounts pointed to factors that strained team dynamics: staff treating patients disrespectfully, colleagues raising infection risks through improper triage, team members failing to complete their tasks, ignoring established protocols, withholding support from

one another, becoming overwhelmed to the point of inaction (thereby increasing others' workload), showing fear of the virus, or outright refusing to care for COVID-19 patients.

Management-related problems included placing excessive demands on personnel and showing little proactive leadership. Individuals in supervisory roles mentioned discomfort with having to push staff harder than usual or with requiring them to partner with inexperienced colleagues — actions they would normally avoid.

Rushed pace and lingering irritation among colleagues who were expected to work together professionally.

Colleagues were calling in sick because they feared catching the disease.

The third category, "Information and communication by organizational management," encompasses 33 subcategories related to conflicting instructions, ineffective overall leadership, and insufficient cooperation and alignment across levels. Many responses criticized leadership shortcomings, such as managers claiming PPE was unnecessary, employers issuing orders that breached regulations, sending contradictory signals, making emotion-based rather than evidence-based choices due to limited expertise, remaining absent from the actual workplace, avoiding decisions, shirking responsibility, failing to coordinate among themselves, and offering little backing or proactive measures. Regarding inconsistent guidelines, replies focused on new directives that could not realistically be applied at the local level, the absence of straightforward instructions, the lack of time to absorb updated knowledge, and the shortage of training materials.

Participants in managerial positions reported difficulties in guiding teams while remaining distant from direct patient care, introducing new work methods, organizing personnel amid widespread pandemic-related concerns, and assessing whether staff were correctly applying the new routines. Moral stress is associated with coordination failures stemming from poor alignment among national authorities, regional councils, and local municipalities, a lack of joint effort among hospital units, and inconsistent practices across various care settings.

Management failed to set a clear overall direction, leaving those of us working directly with patients to handle the hardest allocation decisions.

Complete inaction — leadership basically stayed away from the workplace entirely.

Leaders issue orders that we at the ground level must obey, even though we can clearly see they are ineffective.

Theme 3: "The pandemic hindered us; pandemic-related obstacles"

The final theme includes four categories: (1) Priority setting, (2) Lack of resources, (3) Infection prevention measures, and (4) Limitations regarding end-of-life care. The first category, "Priority setting," contains 10 subcategories. Participants described difficulties in weighing various patient needs against infection risks, balancing psychological requirements of psychiatric patients with infection control demands, struggling to prioritize certain individuals while having to deprioritize others, and the resulting drop in overall care quality. Frustration over excessive paperwork was frequently mentioned. Those in managerial positions highlighted challenges in handling their responsibilities and the tension between delivering care and protecting staff health. Managers also spoke of the difficulty of offering the "next best" level of care due to resource shortages.

Stress levels rose sharply because there simply wasn't enough time to look after every patient; caring for those with COVID-19 demanded so much time that non-isolated patients received far less attention.

Prioritizing COVID-19 cases led to reduced safety for other patients.

The second category, "Lack of resources," comprises 34 subcategories covering shortages in supplies, personnel, and time. Frequent complaints involved insufficient or substandard materials such as personal protective equipment, gloves, soap, and sanitizers — yet patients still required full care. Shortages of critical medical tools, including oxygen supplies, ventilators, and sampling devices, were also widely reported.

High demand, combined with staff illness and exhaustion, created severe staffing shortages. This resulted in extended shifts, frequent schedule changes, and reassignments — sometimes even requiring sick employees to continue working. A surge in patient numbers led to a shortage of hospital beds, forcing some individuals to be discharged early, transferred to other facilities, or sent home. Many responses highlighted the inability to provide more than basic care due to severe time constraints.

Some participants described the peak of the pandemic as an extreme situation comparable to wartime medical conditions. Others noted that they actually found the work meaningful during the crisis, and felt frustrated when returning to normal operations marked by chronic resource shortages.

Only two night-shift workers for 20 residents, twelve of whom died from COVID-19.

For me, the COVID ward provided the best-functioning healthcare I have ever experienced, which made the

return to my regular job extremely stressful and angering, where long waiting lists and constant lack of resources, support, and staff are the norm. It became strikingly clear that human values and deliberate choices underlie how patients are treated and the conditions under which staff must work.

The care we delivered at that moment felt morally correct, but if we had taken even one patient out of that context and cared for them under normal conditions, the same approach would have been unacceptable. We were essentially practicing wartime medicine, not the standard intensive care we are trained for.

The third category, "Infection prevention and control measures," includes 45 subcategories and generated the most responses. Personal protective equipment was often described as a physical and emotional barrier that prevented staff from offering genuine comfort and proper care. Many healthcare workers felt stressed by the fear that they themselves might transmit the virus to vulnerable patients. Those assigned to COVID-19 units expressed frustration at being unable to assist non-COVID patients because of strict restrictions. Other common concerns involved witnessing the harmful effects of reduced social contact and activity on patients' well-being, especially among elderly individuals who became increasingly isolated due to lockdowns and separation rules. Additional challenges included patients testing positive who refused isolation, having to enforce isolation on individuals who did not understand or resisted it, struggling to explain restrictions to patients with dementia, and being forced to deliver involuntary care.

Visiting limitations were another major source of moral stress. Examples included having to act as security and confront relatives who ignored the rules, delivering a cancer diagnosis without family present, breaking bad news by telephone, separating COVID-positive parents from their newborns, denying partners access to maternity wards, doctors avoiding in-person patient evaluations, relying solely on video consultations, and withholding certain treatments due to transmission risks.

When nearly everything that gives these people a sense of quality of life must be removed for reasons they cannot grasp, or that cannot be properly explained or shown to them, they end up almost completely cut off from the world, with only staff for company.

Protective gear was in short supply, and leadership repeatedly insisted that face shields alone were adequate.

I experienced intense moral stress every time I had to send my team into an environment that I personally did not consider safe.

The fourth category, "Limitations regarding end-of-life care," covers 16 subcategories. Common accounts describe palliative care becoming the only available option for many patients, or patients being incorrectly labeled as palliative and therefore denied appropriate treatment. Many responses mentioned unnecessary medical interventions performed solely to satisfy family members, doctors hesitating to withdraw life-sustaining measures, and the distressing feeling of contributing to prolonged suffering without any power to change the situation. Loneliness during the final stages of life due to visiting bans was frequently reported — for instance, having to turn away relatives who wanted to visit, discussing end-of-life plans with families while limiting the number who could attend, and being unable to offer comfort to grieving loved ones. Frustrations about how deceased patients were handled in the early phase of the pandemic also appeared.

During the pandemic // some doctors preferred to shift patients to palliative status, but we would sedate them heavily so they could endure the ongoing treatment until relatives arrived. Even though many of the patients we looked after were screaming that they did not want to live and begging us to let them die, while tearing off their [Non-invasive ventilation] masks or [High flow nasal cannula]. As the nursing team, we had to administer large amounts of sedation // physically restrain them in bed, and hold the masks in place by force. All of this was just so the family could see that we had done everything possible. Was this a dignified way for the patient to die? Absolutely not.

Suddenly, according to staff in nursing homes, elderly residents who had tested positive for COVID-19 but were not critically ill were being given morphine and midazolam injections under the label of palliative care. This amounted to what felt like active euthanasia. How difficult can it be to simply provide oxygen in a residential setting? Instead, they seemed to choose to end lives. We were often told that these patients had been fully alert and responsive only a few days earlier…

This investigation examined how healthcare workers (HCWs) in Sweden personally described morally stressful experiences during the COVID-19 pandemic. Through content analysis, three themes emerged from these accounts: (1) "Seeing, but being prevented from acting; feeling insufficient/inadequate and constrained in the profession," (2) "Someone or something hindered me; organizational structures as an obstacle," and (3) "The pandemic hindered us; pandemic-related obstacles." All three themes converged under the overarching theme: "Being prevented from providing good care." In the sections that follow, we first evaluate

the definitions of moral stress through conceptual analysis in relation to the content analysis findings, before exploring the content analysis results in greater depth.

To facilitate this evaluation, the two key definitions of moral stress are restated here so their conditions of adequacy can be assessed against the study results. Jameton [6, 7] defined moral distress as: "Moral distress occurs when a person recognizes the morally correct action but organizational barriers make it almost impossible to follow through with it". This definition satisfies certain adequacy conditions to some degree, particularly the precision and reliability requirements, because it clearly distinguishes which situations fit and which do not. However, it narrowly limits moral stress to cases where external institutional barriers specifically prevent an individual from carrying out what they believe is right. In contrast, the definition proposed by Kälvemark [8] reads: "Ordinary negative stress reactions that emerge in ethically charged situations where the healthcare provider senses that he or she cannot protect every interest that is involved". This broader formulation aligns more closely with several adequacy criteria. It better satisfies the language use requirement, since not every instance of moral stress involves being blocked by institutional barriers (as shown below). It also more effectively meets the theory and target requirements by directly addressing situations that carry an ethical component, thereby encompassing a wider range of morally stressful experiences. Additionally, the phrase in Jameton's [6, 7] definition— "when one knows the right thing to do" — can be questioned, as ethical dilemmas often lack a single clearly correct option.

When reviewing the responses collected in this study, the majority align closely with Kälvemark's [8] definition. Nevertheless, the second theme — "someone or something hindered me, organizational structures as an obstacle" — corresponds most directly to Jameton's [6, 7] formulation. Similarly, the theme "the pandemic hindered us" could fit Jameton's [6, 7] definition, as infection control measures, such as visiting restrictions, served as institutional barriers that prevented HCWs from acting in accordance with their moral principles.

Despite these overlaps, several findings from the current study illustrate why Kälvemark's [8] definition is preferable to Jameton's [6, 7], about the three adequacy conditions of language use, theory, and target. For instance, descriptions falling under the categories "not being taken seriously" or "feeling inadequate" within the first theme cannot be adequately captured by the idea of external constraints, because such experiences can arise even in the absence of institutional barriers. Likewise, the category "limitations regarding end-of-life care" does not always involve institutional obstacles and is therefore better accommodated by Kälvemark's [8] definition— that is, an ethically loaded situation in which the healthcare worker feels unable to uphold all relevant interests.

Issues related to teamwork and communication from management can sometimes be linked to institutional constraints in Jameton's [6, 7] sense, especially when leaders failed to supply necessary information or resources. However, many responses in this study also described a sense of being complicit in wrongdoing. Such feelings can occur independently of institutional barriers and thus fall outside Jameton's [6, 7] scope, while fitting more naturally within Kälvemark's [8] emphasis on being unable to satisfy all interests at stake.

The core experience of being blocked or unable to protect all relevant interests in an ethically difficult situation (as described by Kälvemark [8]) appears to connect with every situation reported in the results. However, two categories within the first theme raise questions about whether they fully fit this definition: (1) feeling inadequate or insufficient, and (2) not being taken seriously. The first can reasonably be seen as an inability to preserve all interests at stake. The second — involving frustration at not being heard or included in decisions — is more debatable. It centers on the distress of being excluded from decision processes and silenced when voicing concerns, leaving the individual unable to resolve or influence the problems encountered. To better encompass these experiences, the definition could be broadened to include feelings of inadequacy and powerlessness when facing ethical challenges. Such an expansion would move beyond simply "preserving all interests at stake" and would strengthen alignment with the reliability requirement. A proposed revised definition could therefore be: "Moral stress is the stress that emerges when a person encounters a moral challenge — a situation where resolving the moral issue is difficult, acting in line with one's moral values is difficult, or one feels insufficient even when attempting to act according to those values." If the healthcare worker considers themselves as one of the interests that is not being preserved, however, this revision may not be required. It is also important to recognize that moral distress tends to intensify with greater frequency, severity, and/or duration of moral challenges.

In summary, the findings clearly show that moral stress can arise even in the absence of external constraints. A systematic review highlighted the problematic use of the term "constraints" in discussions of moral stress. Austin *et al*. [19] proposed a definition building on Jameton's [6,

7] that incorporated both external and internal constraints. Yet the same review noted that referring to "internal constraints" risks implying that individuals are personally responsible for their moral stress [9]. While the concept of internal constraints can be useful when linked to coping capacity, it should not be interpreted solely as a form of blaming the individual. Instead, attention must remain on addressing the underlying systemic causes of morally difficult situations, such as reallocating resources.

The role of the professional

The present findings underscore the fundamentally moral nature of the healthcare worker's role: delivering high-quality care to patients who need it. Moral stress arises precisely when HCWs encounter barriers that prevent them from fulfilling this core duty. Other forms of work-related stress may also rise during periods of heavy workload. Still, moral stress is distinct because it stems from being unable to act with empathy and in accordance with personal moral standards. That said, general work stress can reduce a person's ability to manage moral stress effectively. The specific obstacles to providing high-quality care appear to vary by professional role. For example, an assistant nurse with limited authority to influence medical decisions, a physician striving to deliver appropriate treatment despite scarce resources, a nurse attempting to address all patient needs within tight time limits, or a manager balancing responsibilities for both patient care and staff welfare. A systematic review has noted that differing professional perspectives on ethical issues can themselves become a source of frustration [20]. Another study emphasized the value of interprofessional education in clinical ethics, noting that nursing students are trained to prioritize caring, while medical students focus primarily on diagnosis and treatment [21].

Sources of moral stress

The most frequent sources of moral stress reported in this study were feelings of inadequacy or insufficiency and resource shortages. These findings correspond with those of a previous quantitative investigation [14]. Difficulties in delivering good patient care can take many forms. During the pandemic, certain features stood out more clearly, such as visiting restrictions and infection prevention protocols. Both the lack of resources and feelings of inadequacy were closely tied to the pandemic context, as surging patient needs led to insufficient staffing and time, which, in turn, produced strong feelings of insufficiency. At the same time, some participants noted that resource and time shortages had already existed before the pandemic. This pattern is consistent with a cross-sectional study of ICU physicians in North America, which reported that moral stress levels during the pandemic were increased (56.9%) or unchanged (41.2%) compared with pre-pandemic levels [22].

Moral stress in extreme situations

Difficult choices about prioritization and the inability to provide care to every patient emerged as important triggers of moral stress. These were often viewed as unavoidable at the time, yet they appeared extreme in retrospect. In disasters and pandemics, where patient needs surge dramatically while resources remain scarce, healthcare workers (HCWs) may more clearly recognize that prioritization is forced by external conditions rather than by any shortcoming in their own abilities. This pattern of intensified ethical difficulties echoes findings from a qualitative study exploring ethical challenges faced by Syrian healthcare workers amid extreme violence [23]. Under ordinary conditions, obstacles to delivering good care due to resource shortages tend to be less noticeable.

Nevertheless, many of the morally stressful situations reported in this study are also frequently encountered in everyday healthcare settings, including non-beneficial treatments and challenges surrounding end-of-life care [24, 25]. Disasters and pandemics, however, appear to generate particularly complex and demanding morally stressful scenarios. Understanding this is crucial for preparing HCWs who may work in disaster-like environments. At the same time, such preparation is likely to prove valuable even in routine practice. For example, resource shortages become far more pronounced during disasters (by definition), yet they are by no means limited to those exceptional circumstances.

Methodological considerations

This study captures only the participating HCWs' personal accounts of morally stressful situations that occurred during the pandemic; we do not possess comparable descriptions from these same individuals regarding morally stressful events before the pandemic. Caution is therefore advised when generalizing the findings to standard healthcare conditions in the absence of a major crisis such as the pandemic. Additionally, the results reflect only the perspectives of Swedish HCWs, and further research is required to explore and contrast these accounts with those of HCWs in other countries and contexts. Other approaches, such as in-depth interviews, might have yielded richer, more detailed data, since open-text fields in surveys inherently constrain

responses. Although many replies were short, others were quite extensive. Taken together, the responses were judged to offer a reasonably comprehensive overview of morally stressful situations. The overall response rate could be considered modest, potentially limiting the study's validity. However, providing free-text answers was entirely optional. The 643 responses nevertheless constitute a substantial collection of firsthand reports from HCWs. Although no formal sampling techniques were used to ensure broad coverage or data saturation, the content analysis material appears to represent a diverse range of experiences across various HCW roles. The explanatory text about moral stress that introduced the relevant survey section may have shaped how participants responded. Still, some framing was necessary to help HCWs distinguish moral stress from other forms of stress before answering subsequent questions. The free-text answers were given in response to the prompt about "other types of situation," which could have led to descriptions falling outside established definitions. Surprisingly, however, the responses remained closely aligned with the broader definitions already present in the literature (as discussed earlier). While the exact reasons for this alignment are unclear, it provides some indirect support for the conceptual analysis conducted in this paper.

Furthermore, although the survey underwent two rounds of piloting, a full content validity assessment before deployment would have strengthened the instrument. Such a step was outside the scope of this project, especially given the need to study an ongoing phenomenon while the pandemic was still unfolding. For any future application of these survey questions, additional validation work is strongly recommended. Finally, the process of translating quotes from Swedish into English may have slightly altered the intended meaning. To minimize this risk, an independent translator performed a back-translation check to verify consistency and accuracy.

Conclusion

Drawing on the outcomes of both the content analysis and the conceptual analysis, the definition proposed in this study is argued to satisfy several important conditions of adequacy. A detailed examination of a definition against these criteria, combined with the study's empirical findings, indicates that a refined definition of moral stress would be beneficial. The suggested version better meets three key criteria: language use, theory, and target requirements. In addition, we offer a proposed definition that builds upon an existing one and may prove more practical because of its greater simplicity: "Moral stress refers to the stress experienced when facing a moral challenge — a situation where resolving the moral issue is difficult, acting in line with one's moral values is difficult, or one feels inadequate even while attempting to act according to those values." Establishing a clear, consistent understanding of moral stress is vital, especially given that the concept has been defined differently across fields. Such clarity is necessary both to ensure we are discussing the same phenomenon and to support the development of effective strategies to prevent or reduce its harmful consequences.

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