

Moral distress amongst intensive care unit professions in the UK: A qualitative study

Adam Jonathan Boulton (✉ adam.boulton@nhs.net)

University of Warwick Warwick Medical School <https://orcid.org/0000-0002-2115-1129>

Joyce Yeung

University of Warwick Warwick Medical School

Christopher Bassford

University of Warwick Warwick Medical School

Anne-Marie Slowther

University of Warwick Warwick Medical School

Research

Keywords: Moral distress, intensive care, ethical climate, staff wellbeing, burnout

Posted Date: August 5th, 2021

DOI: <https://doi.org/10.21203/rs.3.rs-764234/v1>

License: © ⓘ This work is licensed under a Creative Commons Attribution 4.0 International License.

[Read Full License](#)

Abstract

Background:

Working in intensive care presents psychological challenges to healthcare professionals, including moral distress. Concerningly, moral distress is associated with burnout and a tendency to leave the profession. The COVID-19 pandemic has further highlighted the challenges to staff wellbeing and the importance of identifying and mitigating moral distress. However moral distress remains poorly studied in the UK. Our aim was to explore the experience and response to moral distress amongst intensive care professionals in the UK and identify interventions to support professionals and improve staff wellbeing.

Methods:

Prior to the COVID-19 pandemic, 15 interviews were performed with intensive care professionals from four units of varying size and specialty facilitates recruited from a pool of responders to a questionnaire survey. Participants were purposively sampled for hospital, profession, grade, and quantitative moral distress score. Transcripts were analysed using thematic analysis.

Results:

Participants included a range of intensive care professions, working experience, overall moral distress score, and were representative of the larger questionnaire sample. Moral distress occurred across all professions, levels of seniority, and in all units. Moral distress occurred in many situations, most commonly related to providing care against the patient's wishes/interests, or resource constraints compromising care. Its experience resulted in multiple negative feelings and could lead to withdrawal from engaging with patients/families and avoiding a career in intensive care. Participants described a range of individualised coping strategies tailored to the situations faced. The most common and highly valued strategies were informal and relied on working within a supportive environment along with a close-knit team, although participants acknowledged there was a role for structured and formalised intervention. A lack of agency was central to the experience of moral distress.

Conclusions:

Moral distress is commonly encountered by UK intensive care professionals and can have an important negative impact on professional wellbeing and patient care. Interventions to support intensive care professionals should recognise the individualistic nature of coping with moral distress. Addressing moral distress may support a healthy and sustainable intensive care workforce. Achieving this requires a supportive environment and a close-knit supportive team which has implications for how intensive care services are organised.

Background

Staff wellbeing is an important concern for healthcare systems worldwide.(1–4) The COVID-19 pandemic has further focussed international attention on the mental challenges facing healthcare professionals, including moral distress.(5–8) Moral distress is widely defined as occurring when one knows the ethically correct thing to do, but is prevented from acting on that perceived obligation.(9–11) It can arise in situations that present a moral dilemma, conflict or uncertainty.(12–15) Moral distress was first identified in critical care nurses in North America and has been most frequently studied in this population. Similar causes of moral distress have been found amongst other clinical specialities and professionals including pharmacists, palliative care nurses, respiratory therapists, and physicians.(9, 11, 13, 16–20) It results in a range of negative emotional features, including frustration, anxiety, and a sense of powerlessness.(11, 21–23) Moral distress can be deeply damaging and is associated with burnout and a tendency to leave the profession.(9, 11, 17, 24–26)

Intensive care professionals care for patients with life-threatening conditions. Treatment interventions on the intensive care unit (ICU) are often invasive and burdensome, requiring a multifaceted approach and interaction of a multidisciplinary team. Complex, difficult and life changing decisions are a regular occurrence.(27) This environment is therefore highly conducive to moral distress(9, 16, 17, 28) Despite increasing concerns regarding staff burnout and moral distress within the NHS, moral distress remains poorly studied in the UK.(12, 29–31)

This study took place before the COVID-19 pandemic. Its primary aim was to explore the experience and response to moral distress among intensive care professionals working in the UK and to identify possible interventions to alleviate moral distress and improve staff wellbeing. This qualitative study was part of a larger project that included a survey of ICU staff that explored the extent and severity of moral distress in this population (results published elsewhere).

Methods

Approvals were gained from the NHS Health Research Authority (IRAS:238379) and University Hospitals Coventry and Warwickshire NHS Trust acted as study sponsor. The study was approved locally by the R&D department from participating sites.

The study recruited participants from four adult ICUs in the West Midlands with bed capacities ranging from 12 to 80 beds. Sites A & B are large tertiary hospitals with major trauma and complex multi-specialty surgical facilities and sites C & D are smaller district general hospitals with fewer specialist services. Sites C and D are part of the same organisational Trust and so some staff work across both sites. All full- and part-time healthcare professionals working in the ICU were eligible to participate. All grades and clinical professions were included, but students of any profession were excluded.

A paper questionnaire using the validated Measure of Moral Distress for Healthcare Professionals (MMD-HP)(32) was distributed by local research teams to eligible participants as part of the larger project

(quantitative results published elsewhere). Participants willing to take part in an interview into their experience of moral distress included their contact details on the returned questionnaire and from those responders potential interview participants were purposively sampled for hospital, profession, grade, and overall moral distress score. Potential participants were contacted to confirm interest and provided with a study information sheet. Written informed consent was obtained prior to interview. Interviews were conducted between July 2019 and February 2020. The face-to-face semi-structured interviews aimed to explore participants experience of moral distress, the situations that cause it, strategies they use to cope with it; and their views on possible interventions to alleviate moral distress. Interviews lasted approximately 30 minutes, were audio-recorded and transcribed verbatim. Interviews were conducted until no new themes emerged from the data. Transcripts were analysed using thematic analysis.(33) Transcripts were loaded onto NVivo(34) and initially coded by content area informed by the study aims. Examples within each content area were coded inductively and codes compared and grouped to develop themes and sub-themes. Five of the 15 transcripts were analysed independently by AMS and codes and emerging themes were discussed at regular analysis meetings to improve the validity and trustworthiness of the analysis.

During the design of the study we held meetings with the University Hospitals Birmingham Clinical Research Ambassador Group (<https://www.invo.org.uk/communities/invo-direct-org/heart-of-england-nhs-foundation-trust/>), a group of patient and public representatives who support research within the Trust. The 11-member group supported the proposed study, identifying key potential benefits to staff wellbeing and to patient care. Members contributed to development of study protocol and participant information sheet.

Results

Interviews were conducted with 15 participants. Forty-one of the 227 participants completing the paper questionnaire indicated a willingness to take part in an interview, twenty-one were contacted with an invitation and further information about the interview study and 15 agreed to be interviewed. Participant demographics are described in Table 1 and reflected the population who responded to the survey. Five participants had worked in intensive care for less than five years, five for 5–10 years, and five for greater than 15 years. Those working in ICU for more than 15 years had worked in multiple hospitals across the UK in ICUs of varying sizes. Overall interviewee moral distress scores by MMD-HP ranged from 48 to 219 and had a median of 120 (IQR = 40) (tool range 0-432 whereby higher scores indicate high levels of moral distress). Described examples and emerging themes were similar across sites. Qualitative findings are presented below by content area and related themes with illustrative quotes presented in Tables 2, 3, 4.

Table 1
Participant demographics

Characteristic	N = 15
Mean age ± SD – years	40.6 ± 9.1
Gender – no. (%)	
Female	9 (60.0%)
Male	5 (40.0%)
Profession – no. (%)	
Nurse	6 (40.0%)
Band 5	2
Band 7	3
Band 8	1
Doctor	5 (33.3%)
Core trainee level	2
Specialty trainee level	2
Consultant	1
Advanced Critical Care Practitioner	2 (13.3%)
Other	2 (13.3%)
Mean ICU experience ± SD – years	11.1 ± 9.2
Workplace – no. (%)	
Site A	4 (26.7%)
Site B	5 (33.3%)
Site C	6 (40.0%) (3 (20.0%) work at Site D also)

Table 2

Illustrative quotes from participant descriptions of scenarios causing moral distress.

Causes	Quotation example
Endless care	<p><i>“And that kind of torture of not knowing, it’s not like there is something difficult to be done and we know what it is, the fact that it just drags and drags and drags on like this with no kind of end in sight, you know, like motorway traffic and you don’t know, you know if it’s just off the next junction and then you think I can bear it but if this is going to be all the way to Manchester, it’s that sort of, it’s difficult.” (Doctor 5)</i></p> <p><i>“But the families have lost completely that narrative that this is a child that is going to die or an adult that is going to die soon. Exactly the same way with cancer patients, you know, ultimately someone has got to tell them that their cancer is incurable. That message is lost from these adults and so then the problem is you are starting from a point where these families and individuals have had massive amounts of aggressive interventional care,... And they have lost the narrative that this is a child ultimately with a life limiting illness.” (Doctor 4)</i></p> <p><i>“So, we had a patient where you could clearly see (he) was shut down, his arms, legs, his hands were all black, he was on maximum support we could give. The family were kind of ready as well whereas our consultant was like, no we’ll carry on, we’ll treat him.” (Nurse 1)</i></p>
Disregard for patient wishes	<p><i>“The patient says, “I’m ready now, I don’t want this” and the consultants like, “let’s just give it another 24 hours, let’s see how you go.” (Nurse 1)</i></p> <p><i>“...he (the registrar) went to a patient on the ward and had a long chat with the patient ...and she basically said, I am done, I want to go home. And I was like okay right, this is a very senior doctor so that’s what she said, that’s her wishes, and then the next thing I know like she’s coming to ITU, getting lined and up and then she died in ITU like five days later or something.” (Doctor 3)</i></p> <p><i>“It was very distressing actually, really distressing because his motives (the consultant) were not about care and comfort for the patient.” (Nurse 6)</i></p>
External pressures to encourage delivery of perceived futile care	<p><i>“I just thought the bit that I didn’t understand was like multiple consultants were saying they didn’t think she was going to get well and that seemed to be like the collective ITU opinion but we still admitted her because it was what oncology wanted.” (Doctor 3)</i></p> <p><i>“I don’t think it’s intentional but you often feel that the base teams are looking to intensive care to kind of be the sort of the big baddy to the ones that come round and say actually we can’t do anything here and have those conversations not quite on their behalf but be the one who has to make that call.” (Doctor 4)</i></p> <p><i>“...her family throughout have been, what’s the word? I want to say unreasonable but, they have been, they have resisted all honest conversation to the point now that the conversations that we have with them are not honest because they insist that they are not. Just really falsely optimistic despite all the preamble conversations ... I feel like somebody should be able to stop it but I don’t know who that might be... So then the kind of whole relationship has deteriorated to nothing between the family and the medical team.” (Doctor 5)</i></p>

Causes	Quotation example
Resource constraints compromising care	<p><i>"You know having to stretch yourself on top of what you should be, means that there is increased risk for error and things like that. And I have found that I've made a few errors of late in general and it's just from being stretched." (Other 1)</i></p> <p><i>"Somebody who is like a borderline patient, sometimes you think if beds weren't an issue you probably would have been admitted, like you can argue it both ways, you could argue it that they wouldn't benefit from ITU admission and normally you can find enough against it being in their best interest. But like underneath it you think but if there were beds you would have come and who knows if that would have been the right thing or not but you can't sort of deny the fact that when there is only one bed left decisions on the ward are different. And that's difficult isn't it because that shouldn't be the case but it's a limited system isn't it so." (Doctor 5)</i></p> <p><i>"And we only had the capacity to see one of them. And the one that we saw was the sick person but then didn't survive until the following day and the one we didn't see ended up being ventilated for quite some time really, and it felt like we didn't direct our resources to the right place there." (Nurse 5)</i></p> <p><i>"So for example we had a lady who had a devastating intracranial haemorrhage, she was coming into the unit for neuro prognostication probably the organ donation process. We were stuck with her for hours and it was all the kind of chaos as it is in resus, [with] a grieving family... stuck by this bedside in resus which was like a zoo, there was building work going on, the whole thing was so undignified... They couldn't get the bed [in ICU] because they couldn't get the patients out, you know, everybody is stuck, stuck, stuck and at the end of it I was stuck with this patient in this awful environment with her grieving family, just thinking I can't, this is just unbearable. It was just horrible." (Doctor 5)</i></p>
Seniors unable to protect staff	<p><i>"I would say the things that preoccupy me are not necessarily clinical things, they are more about my team and if I am concerned about the wellbeing of my team I will often worry about, you know, I don't know what to do about this situation, I don't know how to improve things ... There isn't anything I can physically do, I can't magic people to come and help, and the staff appreciate that but it's still kind of, you worry for the people that are there continuing to work and their wellbeing and their stress levels." (Nurse 5)</i></p>

Table 3
 Illustrative quotes of participant responses to moral distress.

Response to moral distress	Quotation example
Frustration, Anger	<p><i>"So obviously there is some acute stress, there is a lot of frustration and there is a lot, I have to say the thing that I get more than anything else is kind of here we go again sort of situation." (Doctor 4)</i></p> <p><i>"I do find it stressful, I do get quite angry, not in the moment but often, you know, I feel very grumpy or angry walking back to the ITU having done it all. There is just a great frustration." (Doctor 4)</i></p> <p><i>"And I feel like almost angry at the family for, and then that doesn't feel right, that feels like a really unwelcome feeling to feel angry at this poor family who have had a terrible thing happen to them and just love their loved one and I kind of see that. But it just goes on and on and on and it feels like torture for her, for everybody that looks after her, and it feels like something criminal, you know, it feels worse than" (Doctor 5)</i></p>
Upset	<p><i>"So at the time I feel like there are tears like behind my eyes and I will feel that kind of like ache in your throat that you get and I feel nauseated and I just feel like just exhausted by it really, you know, you keep trying to apologise to the family, trying to look after the patient as best you can. You know, try and apologise, you know, just kind of try to soften, you try to be the buffer between the situation and the patient and the family but you suffer for that don't you?" (Doctor 5)</i></p> <p><i>"Yeah definitely, we all sat in one of the side rooms together and everyone had the opportunity to express their feelings, most of us had a good cry, you know, that sort of thing." (Nurse 2)</i></p>
Deflation, Dissatisfaction	<p><i>"So when I was driving home I felt a bit deflated like I hadn't really done, like I hadn't really done the very best that I could have done although it was quite a messy, it was a bit of a messy situation. And of course lots of clinical situations are very messy, especially when there is more than one team involved and that sort of thing. So I just had a vague sense of feeling dissatisfaction and I should have really known that information before." (Nurse 2)</i></p>
Worry	<p><i>"I would then go home and pick apart my decisions and ruminate and kind of sabotage myself. And then I can't sleep and then I go to work the next day knackered and I worry that my decision making is worse then and then you spiral don't you I think." (Doctor 5)</i></p>
Relatable case	<p><i>"You know, you wouldn't want it for yourself or your own family and yet it keeps going on, you know, it's kind of difficult to witness really. And you feel a bit like a perpetrator of it I think." (Doctor 5)</i></p>
Avoidance of interaction	<p><i>"...my sympathy for the family has deteriorated over time... They come in and I don't like to look at them, so I don't look at them. And that feels inhuman and I think what's become of me, where is my humanity? But it's not that I don't care it's just the situation has got beyond me, that I just think I don't know how to respond to this anymore so I just don't look... that's terrible isn't it? So it is hard, it's really hard." (Doctor 5)</i></p> <p><i>"Yeah, even in handover she is kind of not mentioned really... yeah definitely emotionally like for self-protection I have kind of switched off a bit." (Doctor 5)</i></p>

Response to moral distress	Quotation example
Impact on career decisions	<p><i>"So the NHS for that I think that the amount of trauma that, or emotional trauma that we see that we absorb, that we take on, we don't get the right amount of, in our particular role it has a shelf life of two to four years." (Nurse 3)</i></p> <p><i>"I think people are instead of talking about it, even just with their colleagues, are going home and getting potentially very very distressed about it. And I know that in the last couple of months lots of nurses have resigned from intensive care because of these issues." (Doctor 2)</i></p> <p><i>"You start to think in 10 years' time what will the state of critical care be... you know, a large building with multiple ventilated patients who are in permanent vegetative states... they will become more common" (ACP 2)</i></p> <p><i>"I have previously actually thought about dual specialising in anaesthesia and intensive care. But my most recent job in intensive care has most definitely made me decide not to. But one of the reasons being in my experience has just been, I don't think it's one I would able to continue and a career that I would be able to continue and still actually remain vaguely sane... That's why a lot of us don't really want to go into it, because it's soul destroying." (Doctor 2)</i></p>
Changes over time	<p><i>"The more experience you have definitely the easier it is but I have been really conscious of the burden that the job has on me and kind of being careful and protecting myself. Because if you want longevity you have to understand what it is doing to yourself and have ways of dealing with that." (ACP 2)</i></p> <p><i>"You start to learn situations where you know it's going wrong and it's going to just continue to go wrong until the end with some patients and you learn to cope with things that way." (Other 1)</i></p> <p><i>"I don't know whether this is just me, but personally I feel like I am less able to cope with it now, I get far more emotional now and upset by things then I did when I first started working in critical care... I think probably because of my age, I relate to a lot of the patients now that are either in a similar age range to myself or younger patients that we have that are in a similar age bracket to my children, it really resonates." (Nurse 5)</i></p> <p><i>"No I would say harder because ignorance is bliss sometimes isn't it and actually the older you get, I won't say wiser, but you can see what could go wrong more. And also you understand a little bit more, you want to do better than what you have done previously probably... So I would definitely say it's more frustrating and more difficult." (Nurse 6)</i></p>

Table 4

Illustrative quotes from participant descriptions of coping with moral distress

Emotion	Quotation example
Personal reflection	<p><i>"I think I just reflect constantly anyway, I don't know if everyone does, I imagine most of us do... I generally just do it in my head when I'm exercising I'll tend to think about, that went well, or that didn't go quite so well, what can I do to improve that next time. No, it's not something I think, right I need to go and meditate because that's upset me or whatever." (Other 2)</i></p> <p><i>"Yeah I think the moment you make anything mandatory I think you lose quite a lot of the value... So I think it has to be voluntary, I think it has to be something people do because they recognise it for its own value." (Doctor 3)</i></p> <p><i>"But that is the only thing that gives me a little bit of peace with it is that she either has delirium or dementia so severe that she has no idea of what's going on or where she is, I think she is somewhere in the 1960s." (Nurse 5)</i></p> <p><i>"Again I reassure myself that I was doing at that time what was in the patient's best interest, i.e. we were still actively treating. So I will reassure myself that I've done the right thing." (Other 2)</i></p> <p><i>"Because if there's empathy, you can empathise but I think if you then transfer, if you empathise to the extent of transference you've then put yourself in the position of the patient and then start putting your values on them and that I think is the road to hell isn't it really? Because you then see yourself as that paralysed 26 year old with all the life in front of them when you don't want that... you can sympathise and you can empathise without transferring so I think that's, you don't get too deep do you, that's the thing." (Doctor 1)</i></p>
Mental compartmentalisation	<p><i>"So I tend to compartmentalise work and home, because I have had periods of time before where I have been really, really distressed and it just, it's no good for your home life, so I've kind of, I box things off. I don't know if that is the right way of doing it or not but that's what I tend to do." (Nurse 2)</i></p> <p><i>"I drive quite a long distance to work and back, so mine sort of goes in the car. I have a little reflection and sometimes a little blurt in the car and then by time I've walked through the house, picked the dogs up and walk out, it's gone." (ACP 1)</i></p>
Self-care	<p><i>"And then I think it's just trying to keep your own health kind of optimal so that you are physically healthy it makes the difference to being mentally healthy I think. If you are physically healthy it gives you a bit of robustness." (ACP 2)</i></p> <p><i>"Yeah I do, I tend to go for long walks I take my dogs, go off with my dogs on lots of long walks and fresh air and open space and I don't mind admitting copious quantities of wine over that weekend. And yeah, that's probably how I, fresh air, exercise, wine." (Nurse 2)</i></p> <p><i>"So I used to when I was younger I drank a lot, that was a good way of coping with things but I soon realised that's quite self detrimental in its own way." (Other 1)</i></p>

Emotion	Quotation example
<p>Informal talking with colleagues</p>	<p><i>"So one technique I think is to share to some extent so sort of talking to colleagues that have got a sympathetic ear, I think that that really makes a big difference." (Doctor 4)</i></p> <p><i>"I will talk to either another senior registrar so peer support, that can be very helpful or, you know, consultants that I get on with. So in those circumstances I am looking for someone who is, again it's not kind of, it's not an explicit thought process but I will want someone who I know is on a similar wavelength and will be understanding. Oh yes, someone who, yes someone who's opinion I value." (Doctor 4)</i></p> <p><i>"And it was really useful actually to see people that you are a little bit in awe of sort of like scary Band 7s, it was quite useful to see them sort of actually sort of coming down to our level, the ground level and being distressed by things they have seen... so it was good to see, I was so surprised to see this one particular Band 7 in floods of tears and I thought oh you are human, that's awful isn't it?" (Nurse 2)</i></p> <p><i>"Within work we would talk about it between ourselves and we all kind of feel the same but you kind of egg yourselves on then to go oh this is terrible, it is terrible but it's not helping is it to kind of just keep saying that." (Doctor 5)</i></p>
<p>Supportive environment</p>	<p><i>"I tried to talk to my colleagues about it, unfortunately the environment in in this particular intensive care unit is incredibly unsupportive. The response that you get from trying to talk to your colleagues is not a friendly one, let alone helpful one... well what was the phrase I was told by consultant, I think, suck it up, that was it, you just have to suck it up a bit." (Doctor 2)</i></p> <p><i>"I think what you need is a culture where that's available as and when you need it. And so you know it's alright to sort of say, you know, to some of my bosses or some of my colleagues, actually something shit has just happened can we go and have a cup of tea and a chat... But for me I think that's probably a better approach, is to have the culture where that's okay and then you can go and find what you want from who you want." (Doctor 4)</i></p> <p><i>"I've worked in small hospitals and large hospitals as a nurse and I do think generally [support is better] in a smaller hospital... you've got a smaller team so you know each other better and when you've got a smaller team, smaller teams do tend to stay put more. Whereas bigger hospitals obviously you might not know the staff that you're on with and things like that. ...how are you going to have support from somebody that's an agency who's only there for the day." (ACP 1)</i></p> <p><i>"I think our larger critical care units are not a good idea... I think the bigger units are less personalised and it's hard to maintain and retain a proper team, so it's better to keep the units down to 15 or 20 beds and try and have core teams that don't rotate." (ACP 2)</i></p>

Emotion	Quotation example
Informal talking with friends and family	<p><i>"So yeah occasionally I might talk to my dad or something about it but he's not medical and I probably even then I water it down, with my parents I probably give a slightly watered down picture of what goes on in ICU because actually a lot of is, it can be a bit distressing, it's not particularly nice and there is no point in them also being potentially burdened with it." (Doctor 3)</i></p> <p><i>"I think because I live with my husband who has no knowledge whatsoever of what goes on in this kind of environment, I do talk about work when I get home, but I don't tend to sort of go into that kind of nitty gritty with him because, I don't know really, I just don't. I think he finds it a bit boring to be honest with you, it's not anything he particularly knows about." (Nurse 2)</i></p> <p><i>"[I] have peer support, good family support and my wife is an anaesthetist as well so I can talk through stuff with her easily and all the family and friends, I have got lots of friends who are various members of the medical profession." (ACP 2)</i></p>
Formal debrief	<p><i>"So we had this sort of fairly formal debrief session about four weeks later and I found that helpful. Actually it was easier to talk about it in a less emotional way a few weeks down the line then perhaps it would have been at the time and that was better for me." (Nurse 2)</i></p> <p><i>"I have experienced both those both (formal and informal discussions) and I think for the type of a major clinical incident then I think that a formal sort of debriefing top down sort of debriefing to show that you are supported by your sort of managers is probably better for something that is really awful. But working in critical care you are going to come across something that is pretty awful every day. So I think that we as a sort of cohort of nurses just tend to talk to each other informally most of the time." (Nurse 2)</i></p> <p><i>"I personally think it should be mandatory and you can't force them to talk that go against, that's not right, but I think what people should understand is that regardless of your sort of personality or make up or who you are and how you deal with things, that debrief and that structured approach is important and it might not be something that you necessarily feel that you need now but in 5 or 10 years' time you can reflect back" (Nurse 3)</i></p> <p><i>"It feels very kind of forced and I feel like it's very uncomfortable to sort of sit through and, I don't know. I am not sure whether that, I am uncertain whether that's really going to be helpful in the context that I work to be honest. I think something that is much more kind of organic and sort of friendly, not necessarily a one to one but just kind of a lot more informal I think to me would feel much more comfortable and much more effective." (Doctor 4)</i></p> <p><i>"Unfortunately, the physical logistics of doing things like the debriefs are virtually impossible, they are not easy, they are really not. You know what it's like you have a unit full of patients, you've got a million jobs to do, you've got five families to talk to and discuss it all with, trying to fit debriefs in around that as well, before you know it's 5:30 and your team have gone home or are hoping to get home on time." (Doctor 2)</i></p>

Causes of moral distress

Participants described a range of situations in which they experienced moral distress. Three distinct themes emerged: providing care perceived to not be in the patient's best interests; resource constraints compromising care; and seniors being unable to protect staff. Illustrative quotes are reported in Table 2. The causes of moral distress were frequently multifactorial and often interconnected, particularly where the distress related to treatment being provided that was not perceived to be in the patient's best interests. In these situations, there was often conflict between the wishes of the patient, the clinician and/or the family. Situations with multifaceted causes of moral distress appeared to intensify the distress felt by participants. The most frequently described causes of moral distress related to perceptions of treatment futility or care at the end of life.

Providing care perceived not to be in the patient's best interests

Participants often described provision of care not perceived to be in the patient's best interests and viewed these situations as inappropriate, unjust and cruel, with some likening it to torture. These types of situation were reported by all professions interviewed. Descriptions of the situation and the feelings they engendered in staff revealed three key subthemes: a perception of helplessness in the face of endless care, delivering care that disregarded patient wishes, and external pressure to provide care that is seen as not in the patient's interests.

Endless care

Participants described situations where intensive care appeared to be being delivered to a patient *ad infinitum*, with no meaningful end in sight. Some participants referred to the inevitability of death and felt that the broader picture had been lost. In many of their descriptions, participants suggested that these distressing situations could have been avoided by honest conversations with patients or their family much earlier in the patient's journey. However, they also described situations where ICU consultants were unwilling to change course resulting in seemingly endless aggressive treatment.

Disregard for patient wishes

Nurses and junior doctors described experiencing moral distress when they thought that the care they were delivering was not what the patient wanted. These accounts were conveyed with a sense of powerlessness and a desire to have been able to change the course of treatment. Their distress appeared to be related not only to discomfort that the patient's autonomy was not being respected but that the interests of the patient were not the primary focus of decision-making and that senior clinicians were instead focussed on conducting investigations and imaging that would not change the overall clinical course.

External pressures to deliver perceived futile care

Participants described situations where they felt referring consultants had given patients and families false hope or had pushed for inappropriate admission of patients to intensive care. ICU teams then appeared to be given the responsibility of having the difficult conversations about withdrawal of

treatment. Unrealistic family expectations were frequently encountered by participants and could lead to moral distress when they were perceived it was negatively influencing patient care. This sometimes led to a breakdown in relationships between staff and the family, perceived as irreparable in some situations. This could result in staff disengaging with the family and therefore not having important conversations about patient treatment.

Resource constraints compromising care

Moral distress due to resource constraints were frequently described by participants from all professions. These usually related to bed availability on both ICU and the wards, but also related to staffing and equipment resources. ICU bed availability was described as influencing both decisions to admit to ICU and decisions to review patients for consideration of admission. Even when a decision to admit had been made, the delay in the process because of bed availability could create significant distress when relevant treatment was delayed. Participants also acknowledged that they had made mistakes due to stretching of resources, such as prescription errors.

Seniors unable to protect staff

Being powerless to change and improve conditions for staff and protect them from the harm of being overstretched appeared to be a further source of distress for senior members of staff.

Response to moral distress

Experiencing moral distress led to a range of negative emotions and behaviours (Table 3). Frustration and anger were the most frequently described emotions. Experiencing moral distress could also lead to avoidance of interaction with patients and their family. Some participants described this behaviour as “self-protection”. The level of distress was usually greater when staff related the case to themselves or their family, or when they had established a bond with the patient during a long admission. These cases could often leave strong memories.

“And I still think about her, you know, and I will never forget her name... I can’t actually remember when she died but I still know her name.” (Nurse 2)

Three key themes emerged around response to moral distress; impact on career decisions, coping strategies, and change over time.

Impact on career decisions

Experiencing and coping with moral distress had resulted in some participants questioning their future in intensive care. Participants also raised concerns at perceived gradual changes in practice toward increasingly futile treatments. They cited court judgments that had mandated delivery of aggressive intensive care treatments in their practice that they viewed as inappropriate and cruel. They worried these types of judgment would become more common and lead to changes in intensive care practice and service delivery. Junior doctors considering careers in intensive care had changed course after

experiencing and struggling to cope with moral distress. They also observed the predicaments consultants were in contemplated whether this was something they wanted for themselves.

Coping with moral distress

Participants described a range of strategies for coping with moral distress, tailoring their strategy to the particular situation. Strategies could be classified as internally or externally focussed. Illustrative quotes are reported in Table 4.

Internally focussed strategies

Participants reported coping strategies internal to themselves including personal reflection, mental compartmentalisation, and self-care techniques. Personal reflection was commonly reported as a way of making sense of the distress experienced, however mandatory reflections were less helpful than when it occurred in an organic way. Many participants described how personal reflection would identify mitigating factors within the case to rationalise the situation and lessen their distress. Some participants identified a key risk of self-reflection was transferring the patient's emotional burden onto themselves and experiencing the patient's distress in addition to their own. Participants described mentally compartmentalising their home and out of work activities to provide a space that was separate from the distress associated with work, using physical breaks such as walking the dog or long drives home to facilitate this. Self-care strategies included exercise, outdoor activities, and relaxing with a glass of alcohol. Some acknowledged that their self-care coping strategies had not always been beneficial in the past, particularly noting a tendency to drink too much alcohol.

Externally focussed strategies

Participants reported a range of externally focussed coping techniques that involved interaction with others. These included informal discussions with colleagues, talking to their friends/family, and more formal debrief sessions. The most frequently described coping strategy involved talking with colleagues informally, such as chatting in the coffee room. Junior staff reported that acknowledgment by a senior member of the team that a case was upsetting was powerful and reassuring. Conversely, seniors not wanting to engage in conversations was experienced as detrimental to coping with moral distress. Not all participants found talking to colleagues helpful and urged caution. Some felt that it could make things worse and exaggerate negative feelings. Some participants reported that their current unit had an unsupportive culture and so talking to colleagues had been unhelpful. Participants also acknowledged that clinical pressures could mean there could be no time to talk to colleagues and gain comfort. The culture of the team appeared critical to allow informal talking to be effective. Participants valued a supportive environment with a close-knit, honest, and actively caring team. Smaller teams where staff knew each other well were reported as more supportive compared with larger teams where there was more movement of staff. Participants reported talking to non-medical friends/family outside of work but acknowledged this was often not as helpful. The way they interacted with friends/family was fundamentally different to with clinical colleagues and they felt unable to go into significant clinical

detail due to concern they would upset their friends/family, meaning a reduced level of support could be provided. Participants who appeared to gain most benefit from this coping strategy had medical spouses and/or friends. Formal debriefs were also described, particularly by more junior participants, but less so than informal support. Some reported that having a “hot” debrief at the time of a distressing event and a “cold” debrief later were effective, especially when they included staff of all grades.

Moral distress changes over time

Most participants suggested that the intensity of their moral distress and the ability to cope with it improved over time and with increasing ICU experience and exposure. The main reasons given were being better able to rationalise situations and manage emotions, having improved and refined coping strategies and generally becoming more resilient. A few participants felt that moral distress gets worse over time, either because they become more aware of situations where patient care could be better, or because their increasing age meant they related more personally to the patients and their families.

Suggestions for interventions to support coping

Participants were asked about organisational models of support that could help staff experiencing moral distress. Illustrative quotes are reported in Table 5. The importance of preventing moral distress occurring if possible was emphasised by some participants, although it was acknowledged that it is not possible, or necessarily desirable, to eliminate this from an ICU environment. Generally, participants felt that a personalised approach tailored to the particular situation was needed. They reported that compulsory and “one size fits all” approaches would be ineffective.

Table 5

Illustrative quotes from participant suggestions for interventions to support coping with moral distress

Interventions	Quotation example
Formal and structured support	<p><i>"I think it needs to be structured and formalised because you, for me, I don't need that because I have spent 25 years constructing a complex sort of support network for myself very consciously, but I think if we want to support our staff we should have formal processes where they can just decompress or offload." (ACP 2)</i></p> <p><i>"But getting somebody in to discuss things or an away day or a coffee morning and things, sometimes you don't get the right people going to that do you?... What about the group of staff that don't go on the away day, that drops morale because they didn't go on it. And also they're working with locums and agency, so they're actually having a bad day then. So you can get animosity even just doing something like that." (ACP 1)</i></p> <p><i>"You can sort things quicker if it's informal rather than saying, oh well you know, the formal chap's coming in in two months' time." (Other 1)</i></p> <p><i>"...if we have like psychological support or like ethical support, I don't know if that's a thing, like people that are trained in ethics that could come and pick it out a bit more, do you know what I mean, and kind of explain how you could think about it. If there was a better way to think about it, maybe something like that. Or psychological services I suppose that could come and just, but they would just be soothing wouldn't they I suppose or let you talk about it." (Doctor 5)</i></p> <p><i>"Well ideally a psychotherapist or somebody who has that professional backing or professional background to be able to support that because otherwise talking can only go so far." (Nurse 3)</i></p>
Group-based approach	<p><i>"You're potentially opening yourself up to a whole room of strangers is a bit like alcoholics anonymous, some people wouldn't be up for that." (Other 1)</i></p> <p><i>"...or, you know. I think you don't want to criticise where you work and knowing that it can come back to you and there is that feeling the more junior you are the easier it is for you to go isn't it, I think there is still that." (Nurse 6)</i></p>
Non-healthcare background	<p><i>"Yes, so she came in, to kind of give us techniques but she just didn't really relate to healthcare it was more outside. So it just didn't relate to any of us... They can't relate it to us or how it would actually be working in a hospital." (Nurse 1)</i></p> <p><i>"I think it would be good to talk to people who know the environment because you don't have to explain all of that do you, you can just go in at a level of like mutual understanding and then you can just talk about the problem." (Doctor 5)</i></p>
Informal approach	<p><i>"What I would say is that where, I don't know, I have always found that the organic process has always been the most helpful. I don't know whether that's because in a sense you kind of have more control over who you go and chat to or whether it just has more authenticity." (Doctor 4)</i></p>

Interventions	Quotation example
Nominated ICU staff for support	<p><i>"I do wonder whether a facilitated system would be useful because I think the danger can be that if you've got people who are distressed talking to each other about the distress they can actually spiral down further... Rather than lift themselves out so a moderated sort of peer review or peer forum I guess would be helpful." (Doctor 1)</i></p> <p><i>"... have an identified person, say go to Adam, if you have got a problem go to Adam or its Adam's month to deal with all the grief or whatever. To say there is a role and you get a small bit of time for the role, the role exists in this place, it's paid for, it's budgeted and that's when it happens and get the right people to do it." (ACP 2)</i></p> <p><i>"I think the seniority of the nurses running it is really important because then I think it means that if there are changes to be made that Senior Nurse has the authority to be able to ...say, "Look you know we're getting a lot of stories of people being unhappy about this, you've got to change it"." (Doctor 1)</i></p>
Creating a wider nurturing environment	<p><i>"The other thing I think that's really important to think about is actually that going to work is not just about delivering the clinical care. So you know, I have to work in an organisation where commuting to hospital is difficult, where getting parking is difficult, where I don't have any office space, where IT systems are really slow, where the room er, there is a room to sleep in afterhours but it's noisy, it's not particularly dark, the temperature is not well controlled. And I know that all sounds like whinging, but actually one of the real challenges is that we work in organisations which are physically and organisationally not well set up to kind of look after the staff that are working for them." (Doctor 4)</i></p>

Participants had different views on the format of interventions (formal or informal; structured or unstructured; delivered to groups or individuals) and who should deliver them (ICU staff, other clinical staff, non-clinicians)

Formal and structured support

Formal approaches were seen as more valuable for junior staff who perhaps did not have the same developed coping strategies. A few participants suggested that debriefings should be mandatory, but this was not the majority view and several participants felt that making debriefings mandatory would devalue them. Participants raised logistical concerns over formal support provision due to time constraints meaning there was a risk of inequity with some staff being unable to attend. Concerns were expressed about group-based approaches because of the risk of participants feeling exposed and vulnerable. Confidentiality appeared to be a particular concern regarding discussion forums. Some participants suggested that professional psychological or ethical support should be available to staff although the general feeling among participants was that someone with an ICU background could provide more relevant support.

Informal support

Participants reported that formalised approaches would not be universally beneficial and felt that informal support would be more authentic, accessible, faster acting, and efficacious. Facilitated discussion was suggested by participants as it could enhance the effective informal talking with

colleagues approach. Multiple participants proposed identifying a nominated group of ICU staff who could provide support and advice on an *ad hoc* basis with allocated time to deliver this role, providing a more structured approach to what might otherwise be seen as informal peer support. Participants expressed the view that ICU staff who took on this role of mentor or facilitator needed to be experienced, probably senior members of staff who were trusted and who could initiate change.

Creating a wider nurturing environment

Participants highlighted the importance of organisations valuing the wider working environment in supporting staff to cope with distress. Ensuring avoidable stresses were removed or reduced would enable staff to have more emotional and cognitive capacity to deal with the moral challenges that they faced in their work. For example, adequate car parking, and responsive services such as IT, payroll and HR, were all cited as areas that would improve overall staff wellbeing.

Lack of agency

Throughout participant descriptions of the various facets of moral distress, a key overarching theme of lack of agency emerged. This was consistent across professions and persisted through different contexts of moral distress, descriptions of scenarios, responses to moral distress, and coping strategies and interventions for moral distress. This powerlessness and sense of a lack of control appears central in the development of moral distress and how individuals respond to and cope with it.

"I came away feeling a bit guilty but equally knowing that there was nothing I could have done to avoid that." (Other 2)

"Yeah the more you reflect on it, maybe it's better not to reflect too heavily on it... your hands are essentially tied aren't they?" (ACP 2)

"The family were kind of ready as well whereas our consultant was like, no we'll carry on, we'll treat him." (Nurse 1)

"I feel like somebody should be able to stop it but I don't know who that might be." (Doctor 5)

Discussion

This multi-centre study has examined moral distress across a range of ICU professions for the first time in the UK and was conducted prior to the COVID-19 pandemic. Moral distress was present in all units and across professions, and levels of seniority. Despite the range of participants included, there was consistency in themes regarding causes of moral distress, responses to moral distress, and strategies for coping with it. Causes of moral distress most commonly related to situations where staff were providing care they thought was contrary to their patient's interests and/or wishes, and in some cases causing them harm. An inability to provide treatment because of lack of resources, and an inability of senior staff to protect their juniors were also sources of moral distress. An overarching theme was a feeling of lack of agency or power to change the course of action and to do what they thought best for their patient. The

multiple negative emotions engendered by this repeated experience can lead to withdrawal from engagement with patients and families, likely leading to poorer clinical care, and ultimately to withdrawal from intensive care as a career choice. Staff described a range of individualised coping mechanisms. In general, informal support mechanisms were preferred to more formal arrangements.

A lack of agency being central to the experience of moral distress is consistent with previous studies and conceptual debate.(11–15, 35, 36) However, these works have focussed on nursing populations and our study finds that a lack of agency is fundamental across ICU professions and not an element unique to nurses. This empirical finding supports the ongoing conceptual development of moral distress, providing further evidence to the significance of a lack of agency.

Situations relating to delivery of perceived futile care as a cause of moral distress among clinicians is a common finding in the international literature.(11, 28, 32) However, moral distress due to limited resources appeared more common in our study than in North America.(17, 32, 37) The only other UK study investigating causes of moral distress also noted limited resource availability, suggesting this between country difference could be a reflection of differences in healthcare systems and provision of critical care beds.(12, 30, 38, 39)

It is increasingly clear that moral distress is widespread and detrimental within intensive care.(14, 15, 26) A key question is therefore how to prevent and mitigate it. Given our finding of lack of agency as a cause of moral distress, one preventive strategy would be to improve agency and empower clinical staff to speak out. Hamric *et al.* report how a moral distress consultation service was successful in empowering staff in situations where they had felt unheard or powerless.(40) The authors also acknowledge that given the nature of intensive care practice it is almost inevitable that situations inducing moral distress will occur despite their consultation service. Participants in our study frequently recognised that moral distress may be inevitable in ICU practice. If we accept this inevitability, we also need to provide support for staff who experience it.

Our findings suggest that interventions aimed at combating moral distress require a tailored approach that recognises the individualistic nature of coping with moral distress. Accordingly, whether formal professional or senior support by structured debrief is used rather than informal talking to colleagues will depend on the type of incident. Individualised informal support appears the most common coping strategy and is often effective if it takes place in an organisational culture that provides a supportive environment. A common participant suggestion was to provide interventions that reflected this approach, such as facilitated informal discussion forums with a senior ICU professional. Our participants frequently reported that smaller ICUs were more supportive and more able to permit informal coping compared with larger ICUs. This is noteworthy as UK intensive care services move towards regionalisation with larger ICUs on a “hub and spoke” model to meet increasing care demands.(41) It may be possible to replicate the benefits of smaller units at larger ICUs by working in smaller, close-knit teams caring for “pods” of beds within the larger ICU. Embedding senior professionals who are nominated to facilitate discussion to cope with moral distress within these teams could be beneficial. Supporting effective coping could

produce a positive feedback loop that encourages staff retention, therefore promoting a close-knit team and allowing formation of the staff relationships which appear so important in facilitating informal coping. Conversely, failure to control moral distress could produce a negative spiral due to its deleterious effects on career decisions.(9, 11, 17)

Our data suggest that moral distress influences career decisions with senior staff considering leaving intensive care and junior staff avoiding intensive care as a career due to moral distress, in keeping with previous studies linking moral distress to leaving the profession.(11, 17, 25) It is also notable that those with greater experience in ICU reported that their ability to cope with moral distress had improved through their career, alongside refinement of their coping strategies. It may be that junior staff struggling with moral distress can learn from these experienced seniors, supporting the suggestion of embedding senior professionals within smaller teams to facilitate informal discussion.

Optimising the working environment could also include improving non-clinical facilities. Extra stresses placed on staff by unsatisfactory parking, IT and payroll facilities appear to reduce the ability of staff to cope with moral distress and negatively impact staff wellbeing. Intensive care staff are a valuable resource and staff retention is key to delivering cost-effective and high-quality care.

This study is limited principally by selection bias. Those with strong negative experiences of moral distress may be more likely to volunteer, or conversely do not wish to relive their experiences by interview or have left the profession entirely. To mitigate any selection bias, we used purposive sampling by moral distress score and our sample is representative of the total sample in our questionnaire survey. It includes representation of all hospitals, a range of professions, seniority, age and gender. Furthermore, interviews were performed until no further themes emerged.

Conclusions

Moral distress occurs in a range of clinical situations within UK intensive care practice. A lack of agency is central to moral distress and its experience is negative and damaging to the individual. ICU staff have organically developed multiple strategies of coping with moral distress that show individualisation. In order to provide a healthy and sustainable intensive care workforce for the future it will be important to acknowledge moral distress and provide environments that are supportive to staff and facilitate coping strategies. Policy decisions on the provision of intensive care services should take into account the importance of supportive environments and close-knit teams in facilitating coping with the almost inevitable moral distress and psychological pressures associated with working in intensive care.

Abbreviations

ICU

Intensive Care Unit

MMD-HP

Measure of Moral Distress for Healthcare Professionals
NHS
National Health Service
UK
United Kingdom

Declarations

Ethics approval and consent to participate: Approvals gained from the NHS Health Research Authority (IRAS:238379). University Hospitals Coventry and Warwickshire NHS Trust acted as study sponsor. Local approvals from each study site Research & Development department. Written informed consent was gained from participants.

Consent for publication: Not applicable

Availability of data and materials: The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.

Competing interests: Authors identify no conflicts of interest.

Funding: Funded by an Association of Anaesthetists/Anaesthesia research grant administered by the National Institute of Academic Anaesthesia. AJB is supported by an NIHR funded Academic Clinical Fellowship. The funder had no role in the study design, data collection, analysis, or its interpretation, or writing of the manuscript.

Author's contributions: Study design: AJB, JY, CB, AMS. Study conduct: AJB, JY, AMS. Data analysis: AJB, AMS. Drafting of manuscript: AJB, AMS. Review of manuscript: AJB, JY, CB, AMS.

Acknowledgements: We sincerely thank the healthcare professionals for voluntarily participating in this research and giving their time for interviews. The NIHR Clinical Research Network adopted this study onto their portfolio and the support of the research teams at all sites is greatly appreciated. We are very grateful for the PPI input and contributions made by the University Hospitals Birmingham Clinical Research Ambassador Group.

References

1. NHS Health Education England. NHS Staff and Learners' Mental Wellbeing Commission report. 2019.
2. Royal College of Anaesthetists. A report on the welfare, morale and experiences of anaesthetists in training: the need to listen. 2017.
3. McClelland L, Plunkett E, McCrossan R, Ferguson K, Fraser J, Gildersleve C, et al. A national survey of out-of-hours working and fatigue in consultants in anaesthesia and paediatric intensive care in the UK and Ireland. *Anaesthesia*. 2019;74(12):1509–23.

4. Hall LH, Johnson J, Watt I, Tsipa A, O'Connor DB. Healthcare Staff Wellbeing, Burnout, and Patient Safety: A Systematic Review. *PloS one*. 2016;11(7):e0159015-e.
5. Greenberg N, Docherty M, Gnanapragasam S, Wessely S. Managing mental health challenges faced by healthcare workers during covid-19 pandemic. *BMJ*. 2020;368:m1211.
6. Shapiro J, McDonald TB. Supporting Clinicians during Covid-19 and Beyond – Learning from Past Failures and Envisioning New Strategies. *N Engl J Med*. 2020;383(27):e142.
7. Dzau VJ, Kirch D, Nasca T. Preventing a Parallel Pandemic – A National Strategy to Protect Clinicians' Well-Being. *N Engl J Med*. 2020;383(6):513–5.
8. Sheather J, Fidler H. Covid-19 has amplified moral distress in medicine. *BMJ*. 2021;372:n28.
9. Elpern EH, Covert B, Kleinpell R. Moral distress of staff nurses in a medical intensive care unit. *American journal of critical care: an official publication. American Association of Critical-Care Nurses*. 2005;14(6):523–30.
10. Jameton A. *Nursing practice: The ethical issues*. New Jersey: Prentice Hall Inc; 1984.
11. Hamric AB. Empirical research on moral distress: issues, challenges, and opportunities. *HEC forum: an interdisciplinary journal on hospitals' ethical legal issues*. 2012;24(1):39–49.
12. Morley G, Bradbury-Jones C, Ives J. What is 'moral distress' in nursing? A feminist empirical bioethics study. *Nurs Ethics*. 2020;27(5):1297–314.
13. Choe K, Kang Y, Park Y. Moral distress in critical care nurses: a phenomenological study. *Journal of advanced nursing*. 2015;71(7):1684–93.
14. Oh Y, Gastmans C. Moral distress experienced by nurses: A quantitative literature review. *Nurs Ethics*. 2015;22(1):15–31.
15. Morley G, Ives J, Bradbury-Jones C, Irvine F. What is 'moral distress'? A narrative synthesis of the literature. *Nurs Ethics*. 2019;26(3):646–62.
16. Corley MC. Moral distress of critical care nurses. *American journal of critical care: an official publication. American Association of Critical-Care Nurses*. 1995;4(4):280–5.
17. Dodek PM, Wong H, Norena M, Ayas N, Reynolds SC, Keenan SP, et al. Moral distress in intensive care unit professionals is associated with profession, age, and years of experience. *J Crit Care*. 2016;31(1):178–82.
18. Brazil K, Kassalainen S, Ploeg J, Marshall D. Moral distress experienced by health care professionals who provide home-based palliative care. *Social science & medicine (1982)*. 2010;71(9):1687-91.
19. Schwenzer KJ, Wang L. Assessing moral distress in respiratory care practitioners. *Critical care medicine*. 2006;34(12):2967–73.
20. Sporrang SK, Hoglund AT, Arnetz B. Measuring moral distress in pharmacy and clinical practice. *Nurs Ethics*. 2006;13(4):416–27.
21. Hamric AB, Borchers CT, Epstein EG. Development and Testing of an Instrument to Measure Moral Distress in Healthcare Professionals. *AJOB Primary Research*. 2012;3(2):1–9.

22. Gutierrez KM. Critical care nurses' perceptions of and responses to moral distress. *Dimensions of critical care nursing: DCCN*. 2005;24(5):229–41.
23. Austin W, Lemermeyer G, Goldberg L, Bergum V, Johnson MS. Moral distress in healthcare practice: the situation of nurses. *Alberta RN*. 2008;64(4):4–5.
24. Fumis RRL, Junqueira Amarante GA, de Fátima Nascimento A, Vieira Junior JM. Moral distress and its contribution to the development of burnout syndrome among critical care providers. *Ann Intensive Care*. 2017;7(1):71-.
25. Lamiani G, Borghi L, Argentero P. When healthcare professionals cannot do the right thing: A systematic review of moral distress and its correlates. *J Health Psychol*. 2017;22(1):51–67.
26. Tigard DW. Rethinking moral distress: conceptual demands for a troubling phenomenon affecting health care professionals. *Med Health Care Philos*. 2018;21(4):479–88.
27. Sprung CL, Cohen SL, Sjokvist P, Baras M, Bulow HH, Hovilehto S, et al. End-of-life practices in European intensive care units: the Ethicus Study. *Jama*. 2003;290(6):790–7.
28. Henrich NJ, Dodek PM, Alden L, Keenan SP, Reynolds S, Rodney P. Causes of moral distress in the intensive care unit: A qualitative study. *Journal of critical care*. 2016;35:57–62.
29. St Ledger U, Begley A, Reid J, Prior L, McAuley D, Blackwood B. Moral distress in end-of-life care in the intensive care unit. *Journal of advanced nursing*. 2013;69(8):1869–80.
30. Colville G, Dawson D, Rabinthiran S, Chaudry-Daley Z, Perkins-Porras L. A survey of moral distress in staff working in intensive care in the UK. *Journal of the Intensive Care Society*. 2018.
31. Monrouxe LV, Rees CE, Dennis I, Wells SE. Professionalism dilemmas, moral distress and the healthcare student: insights from two online UK-wide questionnaire studies. *BMJ open*. 2015;5(5):e007518.
32. 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*. 2019;10(2):113–24.
33. Silverman D. *Qualitative Research*. SAGE; 2016.
34. QSR International Pty Ltd. *NVivo qualitative data analysis Software Version 12*. 2018.
35. Peter E, Liaschenko J. Perils of proximity: a spatiotemporal analysis of moral distress and moral ambiguity. *Nurs Inq*. 2004;11(4):218–25.
36. Traudt T, Liaschenko J, Peden-McAlpine C. Moral Agency, Moral Imagination, and Moral Community: Antidotes to Moral Distress. *J Clin Ethics*. 2016;27(3):201–13.
37. Whitehead PB, Herbertson RK, Hamric AB, Epstein EG, Fisher JM. Moral distress among healthcare professionals: report of an institution-wide survey. *Journal of nursing scholarship: an official publication of Sigma Theta Tau International Honor Society of Nursing*. 2015;47(2):117–25.
38. Wallace DJ, Angus DC, Seymour CW, Barnato AE, Kahn JM. Critical Care Bed Growth in the United States. A Comparison of Regional and National Trends. *Am J Respir Crit Care Med*. 2014;191(4):410–6.

39. Wong DJN, Popham S, Wilson AM, Barneto LM, Lindsay HA, Farmer L, et al. Postoperative critical care and high-acuity care provision in the United Kingdom, Australia, and New Zealand. *Br J Anaesth*. 2019;122(4):460–9.
40. Hamric AB, Epstein EG. A Health System-wide Moral Distress Consultation Service: Development and Evaluation. *HEC forum: an interdisciplinary journal on hospitals' ethical legal issues*. 2017;29(2):127–43.
41. Suntharalingam G, Handy J, Walsh A. Regionalisation of critical care: can we sustain an intensive care unit in every hospital? *Anaesthesia*. 2014;69(10):1069–73.