Supplementary material B. Tabulated Summary Table with MERSQI and COREQ

Authors/Year	Article Title	Type of study	MERSQI	COREQ	Study Aim	Methodology	Key findings	Proposed solutions/conclusions
Abbasi et al. 2014	Moral Distress in Physicians Practicing in Hospitals Affiliated to Medical Sciences Universities	Quantitative	15.5	NA	"This study aimed to determine the status of moral distress in physicians practicing in hospitals affiliated to Medical Sciences Universities in Tehran."	"This cross-sectional study was carried out using the Standard Hamric Scale to collect data after modification and evaluation of its reliability and validity. A total of 399 physicians responded to the scale. Data analysis was performed using descriptive and correlation statistics with	"Results showed that the frequency of moral distress of physicians was 1.24 ± 0.63 and the intensity of moral distress and composite score of moral distress were 2.14 ± 0.80 and 2.94 ± 2.38, respectively. A significant negative correlation existed between age and frequency and composite score ($r = -0.15$, $P < 0.01$ and $r = -0.16$, $P < 0.01$, respectively) as well as years of	"Physicians may encounter moral distress during their practice; therefore, the common causes of distress should be identified in order to prevent its occurrence."

						respect to the variables."	experience and composite score (r = -0.11, P = 0.04). Moral distress composite score in adults specialists was higher than pediatricians (P = 0.002), but lower in physicians participated in medical ethics training courses compared to those not participated."	
Aguilera et al. 2014	Moral distress in pediatric hematology/oncology physicians	Quantitative	NA	NA	"To quantify moral distress in pediatric Hematology-Oncology physicians"	"Using SurveyMonkey.com, we surveyed practicing pediatric hematology/oncology attendings and fellows. We used the moral distress survey revised version. Respondents answered 21 questions, on a scale of 0 to 4, pertaining to the	“Thirty-one of 50 eligible physicians answered most of the 21 questions. Maximum possible score is 336. The mean moral distress score was 50.2 (±SD, 23.6). Higher moral distress scores were associated with younger physician age (P=0.033) and fewer years of clinical experience (P=0.037). A multivariate analysis	“We demonstrate that increased experience with clinical management of pediatric hematology/oncology patients and older physician age are associated with lower levels of moral distress. Younger pediatric hematology/oncology attending physicians and fellow trainees experience higher

						intensity and frequency of moral distress in their daily medical practice. Moral distress scores were calculated by multiplying intensity by frequency for each question and adding the scores from all questions for each respondent. Significance was determined with the general linear model, Wilcoxon rank-sum, Pearson's correlation coefficient, or the Spearman correlation coefficient"	validated higher moral distress score in practitioners with less clinical experience. Physician age was negatively correlated with moral distress scores associated with quetions with the highest total scores were: to watch patient suffer due to lack of provider continuity, decrease patient care quality due to poor team communication, and continue life support. The lowest scores for moral distress were: providing care that does not relieve a child's suffering because of fear of increasing doses of pain medication and administration of sedatives to an unconscious child	levels of moral distress."

							that could hasten the child's death.”	
Alwadaei et al. 2019	Waiting for a miracle or best medical practice? Endof-life medical ethical dilemmas in Bahrain	Qualitative	NA	18	"In Bahrain, maintaining life support at all costs is a cultural value considered to be embedded in the Islamic religion. We explore endof-life decision making for brain dead patients in an Arab country where medical cultures are dominated by Western ideas and the lay culture is Eastern."	"In-depth interviews were conducted from February to April 2018 with 12 Western-educated Bahraini doctors whose medical practice often included end-of-life decision making. Discussions were about who should make withdrawal of life support decisions, how decisions are made and the context for decision making. To develop results, we used the inductive method of thematic analysis."	"Informants considered it difficult to engage non-medical people in end-of-life decisions because of people’s reluctance to talk about death and no legal clarity about medical responsibilities. There was disagreement about doctors’ roles with some saying that end-of-life decisions were purely medical or purely religious but most maintaining that such decisions need to be collectively owned by medicine, patients, families, religious advisors and society. Informants practised in a legal vacuum that made their ethics interpretations	"End-of-life decisions challenge Western-trained doctors in Bahrain as they grapple with aligning respect for local culture with their training in the ethical practice of Western medicine."

							and clinical decision making idiosyncratic regarding end-oflife care for brain dead patients. Participants referred to contrasts between their current practice and previous work in other countries, recognising the influences of religious and cultural dimensions on their practice in Bahrain."	
Aultman & Wurzel 2014	Recognizing and Alleviating Moral Distress Among Obstetrics and Gynecology Residents	Qualitative	NA	18	"We examined how moral and nonmoral judgments about patients are formulated, confirmed, or modified and how moral distress may be alleviated among obstetrics-gynecology residents."	"Three focus groups, guided by open-ended interview questions, were conducted with 31 obstetrics-gynecology residents from 3 academic medical institutions in northeast Ohio. Each focus group contained	"Our participants struggled with 3 types of patients perceived as difficult: (1) patients with chronic pain, including patients who abuse narcotics; (2) demanding and entitled patients; and (3) irresponsible patients. Difficult clinical encounters with such patients contribute to	"Moral distress that is not addressed in residency education may contribute to career dissatisfaction and ineffective patient care. We recommend education and research on pedagogical approaches in residency education in a model that emphasizes ethics and professional identity

						7 to 14 participants and was recorded. Two investigators independently coded and thematically analyzed the transcribed data."	unalleviated moral distress for residents and negative, and often inaccurate, judgment made about patients. The residents reported that they were able to prevent stigmatizing judgments about patients by keeping an open mind or recognizing the particular needs of patients, but they still felt unresolved moral distress."	development as well as the recognition and alleviation of moral distress."
Bader 2018	Trainee Moral Distress in Capacity Consultations for End-of-Life Care	Qualitative	NA	1	"The following cases illustrate different aspects of the psychiatric consultant's emotional experience that can arise from these complex questions."	"Presents case reports of an 80-year-old male with a history of end-stage renal disease on hemodialysis (HD), interstitial lung disease, and no prior psychiatric history, was hospitalized for pneumonia."	"Moral distress has been studied across disciplines, and found to be particularly present in clinical psychiatry. Psychiatrists are entrusted with one of the highest responsibilities: to assess someone's state of mind and their risk of harm to	"For decisions surrounding end-of-life care, psychiatric assessment can help medical care proceed in a way that is consistent with the person's values as well as with the ethical principles of the profession. Given the right circumstances, instead of being plagued with

						Additionally, "A 40-year-old women with a history of an aggressive lymphoma and bipolar disorder, was admitted for sepsis. After a few days, she started refusing all care, and kept repeating "let me die, let me die."	self or others. With this responsibility comes the expectation that the assessments will be definitive, whereas in reality, they are a process, complex in nature, and inherently uncertain." "Moral distress can be counteracted in several ways. On an individual level, a clinician can develop a sense of moral resilience, which occurs when one has considered the complexity of a situation, including ethical, psychological, social, and moral components."	moral distress about the decision, the clinician can be left with a sense of moral fidelity."
Beck et al. 2020	Moral distress in pediatric residents and pediatric hospitalists: sources and	Quantitative	11.5	NA	"Moral distress is increasingly identified as a major problem affecting healthcare professionals, but it is poorly characterized	"Cross-sectional survey from January through March 2019 of pediatric residents and	"Residents reported significantly higher frequency scores (residents: M = 38.5 vs. hospitalists: M = 33.3; difference: 5.2,	"Pediatric residents and hospitalists report experiencing moral distress from a variety of patient-, team-, and system-level sources,

	association with burnout				among pediatricians. Our objective was to assess the sources of moral distress in residents and pediatric hospitalist attendings and to examine the association of moral distress with reported burnout."	hospital medicine attending physicians affiliated with 4 free-standing children's hospitals. Moral distress was measured using the Measure of Moral Distress for Healthcare Professionals (MMD-HP). Burnout was measured using 2 items adapted from the Maslach Burnout Inventory."	95% confidence interval [CI], 2.9−7.5) and composite scores (residents: M = 97.6 vs hospitalists: M = 83.0; difference:14.6, 95% CI, 5.7−23.5) than hospitalists. The most frequent source of moral distress was "having excessive documentation requirements that compromise patient care," and the most intense source of moral distress was "be[ing] required to work with abusive patients/family members who are compromising quality of care." Significantly higher mean MMD-HP composite scores were observed among participants reporting that they	and this distress is associated with burnout."

							felt burned out at least once per week (M = 114.6 vs M = 82.3; difference: 32.3, 95% CI, 23.5−41.2)."	
Berger et al. 2019	Self-Inflicted Moral Distress: Opportunity for a Fuller Exercise of Professionalism	Commentary	NA	NA	"We contend that some experiences of moral distress are self-inflicted due to one's under-assertion of professional authority, and these are potentially avoidable."	NA	"Individual-level moral distress may be self-inflicted in a number of ways. 1. Some clinicians' understandings of what is either permitted or obligated under established norms of professional authority may be limited. 2. An individual's ability to assert his or her recognized professional authority may be hampered due to limited skills in communicating with patients and families. 3. The individual is either ignorant of, or unwilling to,	" Individuals can - Better familiarize themselves with institutional policies and distinguish these from institutional "folklore" and common practice. - Improve their knowledge of relevant state laws and regulations, to both self-educate and to position themselves to offer peer support. - Exercises in self-reflective practices, training to recognize and mitigate countertransference, and skill building in communication techniques - Both individuals and groups of professionals should

							leverage institutional resources that, if appropriately accessed, would mitigate the morally distressing circumstance.”	view institutional power brokers as primarily responsible for ensuring institutional integrity and supporting the exercise of professionalism. Reciprocally, leadership at the team, unit, and institutional level must be committed to a just culture, not merely in word but in deed.”
Brown 2019	Reconceiving Decisions at the End of Life in Pediatrics: decision-making as a form of ritual	Commentary	NA	NA	“This essay presents anthropological perspectives on the goals of healing and healing rituals, providing examples in which the recipient of healing was not the patient but the family or community. Drawing on this scholarship, the author reconceives decision-making at the end of life in pediatrics as a form of healing ritual,	NA	“Clinicians can be empowered—by their own moral imagination and with the support of the moral community of colleagues and supervisors—to view decision-making through a different lens, one with benefits for families as much as for patients. This is a paradigm shift—the process itself is	"If “conflict [between clinicians and families] exposes the question, implicitly or explicitly, of who or what is in control of deciding what to do”, then healing rituals and practices might be seen as ways to push for change by shifting existing balances of power. I have demonstrated here that the process of decision-making itself carries some

					explores how this perspective might help clinicians to reframe situations that provoke moral and empathic distress, and analyzes the ethical implica tions of these arguments.”		now valued for its long-term benefit to the family, regardless of the actual decision it yields—and it meaningfully alters the way language is used." Suffering and “quality of life” are also subjective terms. This framework prioritizes the parents’ assessments in this regard over that of clinicians.”	elements akin to healing rituals in traditional medicine, particularly when we consider the family as a potential recipient of healing effects."
Brown-Saltzman 2013	The Gift of Voice	Comment ary	NA	NA	“Initial writings and moral distress research focused on nursing, however, it soon became clear that others in healthcare also experienced moral distress. The narratives discussed in this commentary show this variation not only in the	“Twelve narratives have been given to us, relaying various experiences of moral distress in healthcare professionals.”	“Other important themes drawn out here are: isolation, powerlessness, failure, regret, undermined potential and the way feelings are experienced. It is also noted that despite the pain and angst, there is a sense of gratitude in	“The narratives discussed in this commentary show this variation not only in the authors’ multiplicity of disciplines (psychologists, nurses, an ethicist, and physicians), but also in their workplace environments

					authors' multiplicity of disciplines (psychologists, nurses, an ethicist, and physicians), but also in their workplace environments (prisons, hospitals, and homecare) and their roles, from students to well accomplished professionals."		these stories. They touch our own woundedness, remind us of our own resiliency and give us hope for the redemptive power of the experience and reflection."	(prisons, hospitals, and homecare) and their roles, from students to well accomplished professionals. In other words no one is immune. By looking through the lens of time the author shows that the experience of moral distress is not isolated in time, but in fact continues to be lived over time."
Bruce et al. 2015	A qualitative study exploring moral distress in the ICU team: the importance of unit functionality and intrateam dynamics	Qualitative	NA	26	"Our study objectives were to determine the key sources of MD in diverse critical care professionals and how they manage it in the context of team-based models."	"29 ICU team members of diverse professional backgrounds interviewed between March and July 2013."	"All members of the ICU team reported experiencing moral distress. Intrateam discordance served as a key source of distress for all healthcare disciplines."	" 1. When clinicians alter the content of their goals-of-care conversations with patients or families to accommodate intrateam discordance (as part of the "pas-de-deux"), subsequent decisions regarding medical care may be compromised. 2. When different team members respond differently to the same case— with nurses becoming

								more emotionally invested and physicians becoming more withdrawn—communication gaps are likely to occur at critical moral distress junctures"
Brummett 2020	The Baffling Babble of Brain Injury	Case study	NA	NA	"This paper presents a dialogue that demonstrates the "baffling babble of brain injury", a phenomenon that can occur when physicians' medical information is "either exceedingly vague or delivered through terminology that can be misinterpreted by surrogates."	Fictional case study formulated from several real ones	"Brain babble is a form of miscommunication in the doctor-patient relationship that can significantly contribute to surrogate treatment decisions that confound clinicians and create considerable moral distress."	- "Genuine clinical uncertainty drives the hesitation to provide specific percentages for prognosis, and physicians who openly own this uncertainty are considered calming by most families who accept the uncertainty once it was stated." - "One helpful strategy for communicating prognosis about neurological recovery is to describe the best case, worst case, and most likely case, a method that gives families a range of expectations while accounting for

								uncertainty.” - “Emphasizing the role of the surrogate as one who exercises substituted judgment also supports personhood by inviting the surrogate to channel the patient’s values throughout the decision- making process. “
Bullin & Bogetz 2020	Point: Moral Distress Can Indicate Inappropriate Care at End-Of-Life	Comment ary	NA	NA	Commentary on "practicing clinicians (oncologists or otherwise) who typically direct plans of care can also experience distress."	NA	"1. Moral distress is common in oncology care and can impact all health professionals and trainees, most commonly in disagreements about plans of care." "2. Care plans that elicit moral distress are often labeled as “futile” or “inappropriate,” yet these terms are imprecise." "3. Moral distress is most often related to differences in values	"Clinicians should unpack their distress through introspection and with support, including consultation with third parties (such as palliative care teams and ethics consultative services), to recognize the contributing value differences, biases and systems issues and to understand what competing ethical considerations their distress may signal."

							or in poor communication of goals and understanding." "4. In rare cases, moral distress may be a marker of competing ethical interests, that do indicate a plan of care is inappropriate." "5. Prematurely dismissing moral distress can eliminate clinician's agency, and fails to recognize a common morality"	
Butler 2020	US Clinicians' Experiences and Perspectives on Resource Limitation and Patient Care During the COVID-19 Pandemic	Qualitative	NA	30	"To describe the perspectives and experiences of clinicians involved in institutional planning for resource limitation and/or patient care during the pandemic."	"This qualitative study used inductive thematic analysis of semi structured interviews conducted in April and May 2020 with a national group of clinicians (eg, intensivists,	"The 61 participants included in this study were practicing in 15 US states and were more heavily sampled from areas with the highest rates of COVID-19 infection at the time of interviews (ie, Seattle, New York City, New Orleans).	"The findings of this qualitative study highlighted the complexity of providing high-quality care for patients during the COVID-19 pandemic. Expanding the scope of institutional planning to address resource limitation challenges that can

						nephrologists, nurses) involved in institutional planning and/or clinical care during the COVID-19 pandemic across the United States."	Most participants were White individuals (39 [65%]), were attending physicians (45 [75%]), and were practicing in large academic centers; academic centers, 46 [77%]). Three overlapping and interrelated themes emerged from qualitative analysis, as follows: (1) planning for crisis capacity, (2) adapting to resource limitation, and (3) multiple unprecedented barriers to care delivery. Clinician leaders worked within their institutions to plan a systematic approach for fair allocation of limited resources in crisis settings so that frontline clinicians would not have to	arise long before declarations of crisis capacity may help to support frontline clinicians, promote equity, and optimize care as the pandemic evolves."

							make rationing decisions at the bedside. However, even before a declaration of crisis capacity, clinicians encountered varied and sometimes unanticipated forms of resource limitation that could compromise care, require that they make difficult allocation decisions, and contribute to moral distress. Furthermore, unprecedented challenges to caring for patients during the pandemic, including the need to limit in-person interactions, the rapid pace of change, and the dearth of scientific evidence, added to the challenges of caring for patients	

							and communicating with families."	
Cabrini et al. 2015	Ethical issues associated with in-hospital emergency from the Medical Emergency Team's perspective: a national survey	Quantitative	11	NA	"We performed a survey among Italian intensivists/anesthesiologists evaluating the Medical Emergency Team (MET)'s perspective on the most relevant ethical aspects faced in daily practice."	"A questionnaire was developed on behalf of the Italian scientific society of anesthesia and intensive care (SIAARTI) and administered to its members. Decision making criteria applied by respondents when dealing with ethical aspects, the estimated incidence of conflicts due to ethical issues and the impact on the respondents' emotional and moral distress were explored."	"Patient life-expectancy, wishes, and the quality of life were the factors most considered for decisions. Conflicts with ward physicians were reported by most respondents; disagreement on appropriateness of ICU admission and family unpreparedness to the imminent patient death were the most frequent reasons. Half of respondents considered that in case of conflicts the final decision should be made by the MET. Conflicts were generally recognized as causing increased and moral distress within the MET members."	"Italian intensivists/anesthesiologists reported that ethical issues associated with in-hospital emergencies are occurring commonly and are having a significant negative impact on MET well-being." Conflicts with ward physicians happen frequently. They also conveyed that hospitals do not offer ethics training and have no protocols in place to address ethical issues."

Camporesi & Mori 2021	Ethicists, doctors and triage decisions: who should decide? And on what basis?	Commentary	NA	NA	"We report here an emerging dispute in Italy concerning triage criteria for critically ill covid-19 patients, and how best to support doctors having to make difficult decisions in a context of insufficient life saving resources."	NA	"There are two opposing solutions to moral distress experienced by doctors and healthcare professionals in a context of imbalance between life-saving resources, and clinical needs of the population: 1. Make criteria explicit, support doctors with a triage committee. 2. Recommend that doctors make triage decisions alone, on the basis of their clinical judgments only."	"These are complex questions that go well beyond the pandemic."
Carse & Ruston 2017	Harnessing the Promise of Moral Distress: A Call for Re-Orientation	Commentary	NA	NA	"To revisit the definition and challenges posed by MD, and re-understand the way moral distress is understood and worked with."	NA	"It is crucial that we find ways to empower clinicians in heeding this call—to support clinicians' moral agency and voice, foster their moral resilience, and facilitate their ability to contribute to	"Moral distress itself is not the enemy. If properly worked with, it can heighten awareness that an occasion calls for careful moral consideration and prompt fruitful reflection and action. It is essential that we

							needed reform within the organizations and systems in which they work. These objectives must inform creative expansion in the design of strategies for addressing moral distress in the day-to-day of clinical practice."	find new ways to support the effective moral agency of clinicians, at all levels of power and authority, so they can stand for, and give courageous voice to, matters of conscience without fear of resistance, dismissal, or reprisal, and with realistic hope that their constructive protests and creative ideas will be heard and taken seriously."
Cerrvantes et al. 2018	Clinicians' Perspectives on Providing Emergency-Only Hemodialysis to Undocumented Immigrants: A Qualitative Study.	Qualitative	NA	20	“In the United States, nearly half of undocumented immigrants with end-stage kidney disease receive hemodialysis only when they are evaluated in an emergency department and are found to have life-threatening renal failure (“emergency-only hemodialysis” [EOHD]). These	“We conducted semistructured interviews and used the Consolidated Criteria for Reporting Qualitative Health Research to report this study. The multi-institutional review boards of the University of	“Four themes and 13 subthemes (in parentheses) were identified: 1) drivers of professional burnout (emotional exhaustion from witnessing needless suffering and high mortality, jeop-ardizing patient trust, detaching from patients, perceived lack of control over EOHD criteria, and	“Clinicians in safety-net settings who provide EOHD to undocumented patients describe experiencing moral distress and being driven toward professional burnout. The burden of EOHD on clinicians should inform discussions of systemic ap- proaches to support provision of adequate care

					patients experience psychosocial distress and much higher mortality than patients receiving regularly scheduled hemodialysis, but little is known about how providing EOHD affects the clinicians involved. To understand clinicians' experiences providing EOHD."	Colorado Denver and the Baylor College of Medicine approved this study."	physical exhaustion from over extending to bridge care), 2) moral distress from propagating injustice (altered care based on nonmedical factors, focus on volume at the expense of quality, and need to game the system), 3) confusing and perverse financial incentives (wasting resources, confusing financial incentives, and concerns about sustainability), and 4) inspiration toward advocacy (deriving inspiration from patients and strengthened altruism)."	based on medical need."
Choong et al. 2010	A framework for resolving disagreement during end of life care in the critical care unit	Descripti ve	NA	NA	"To outline the roles and responsibilities of physicians, substitute decision makers, and the judicial system when decisions must be made on behalf of	"We used a case-based example to illustrate our objectives. We employed a comprehensive	"In Canada, laws about substitute decision-making for health care are primarily provincial or territorial. Thus, laws and policies	"Knowledge of underlying ethical principles, understanding of professional duties, and adoption of a process for mediation

					incapable persons, and to provide a framework for conflict resolution during end-of-life decision-making for physicians practicing in Canada."	approach to understanding end-of-life decision making that included: 1) a search for relevant literature; 2) a review of provincial college policies; 3) a review of provincial legislation on consent; 4) a consultation with two bioethicists and 5) a consultation with two legal experts in health law."	from professional regulatory bodies on end-of-life care vary across the country. We tabulated the provincial college policies on end-of-life care and the provincial legislation on consent and advance directives, and constructed a 10-step approach to conflict resolution."	and conflict resolution are essential to ensuring that physicians and institutions act responsibly in maintaining a patients' best interests in the context of family-centred care."
Close et al. 2019	Doctors' perceptions of how resource limitations relate to futility in end-of-life decision making: a qualitative analysis.	Qualitative	NA	23	"To increase knowledge of how doctors perceive futile treatments and scarcity of resources at the end of life. In particular, their perceptions about whether and how resource limitations	"Qualitative study using in-depth, semistructured, face-to-face interviews. Ninety-six doctors were interviewed in 11 medical	"Doctors' perceptions of whether resource limitations were relevant to their practice varied, and doctors were more comfortable with explicit rather than implicit rationing.	"Doctors' ability to distinguish between futility and rationing would be enhanced through regulatory support for explicit rationing and strategies to support doctors' role in rationing at the

					influence end-of-life decision making. This study builds on previous work that found some doctors include resource limitations in their understanding of the concept of futility."	specialties. Transcripts of the interviews were analysed using thematic analysis."	Several doctors incorporated resource limitations into their definition of futility. For some, availability of resources was one factor of many in assessing futility, secondary to patient considerations, but a few doctors indicated that the concept of futility concealed rationing. Doctors experienced moral distress due to the resource implications of providing futile treatment and the lack of administrative supports for bedside rationing."	bedside. Medical policies should address the distinction between resource limitations and futility to promote legitimacy in end-of- life decision making."
Colville et al. 2019	A survey of moral distress in staff working in intensive care in the UK	Quantitative	9	NA	"The main aim of this study was to add to the literature by using this scale to establish levels of moral distress in a sample of physicians and nurses	"In this cross-sectional survey, n=171 nurses and physicians working in intensive care in the United	"Mean (SD) Moral Distress Scale-Revised score was 70.2 (39.6). Significant associations were found with female	"In conclusion, it is likely that some degree of moral distress is inevitable in this work and indeed some discomfort of this

					working in adult ICU settings in the United Kingdom. Secondary aims were to examine associations between MDS-R scores and socio-demographic factors, scores on a brief mental health screening instrument and intention to leave the job."	Kingdom completed the Moral Distress Scale-Revised in relation to their experiences at work."	gender (female 74.1 (40.2) vs. male 55.5 (33.8), p=0.010); depression (r=0.165, p=0.035) and with intention to leave job (considering leaving 85.5 (42.4) vs. not considering leaving 67.2 (38.6), p=0.040)."	kind may be a sign that staff are retaining the ability to think critically about what they are doing. However, if this form of work-related stress builds to a level where a staff member's emotional wellbeing is seriously compromised, it is likely to have an impact on the quality of care of patients, as well as on unit morale and staff turnover. Interventions designed to help staff to make sense of the more difficult aspects of their experiences at work together and find a way to work through them, are therefore to be welcomed and a measure such as the MDS-R provides a potentially useful tool with which to

								evaluate their impact."
Cullati et al. 2017	Self-Rated Health and Sick Leave among Nurses and Physicians: The Role of Regret and Coping Strategies in Difficult Care-Related Situations	Quantitative	9.5	NA	“Moral distress – such as feeling strong regret over difficult patient situations – is common among nurses and physicians. Regret intensity, as well as the coping strategies used to manage regrets, may also influence the health and sickness absence of healthcare professionals. The objective of this study was to determine if the experience of regret related to difficult care-related situations is associated with poor health and sick leave and if coping strategies mediate these association.”	“Two cross-sectional surveys were conducted in Switzerland (Geneva, 2011 and Zurich, 2014). Outcomes were self-rated health (SRH) and sick leave in the last 6 months. We examined the associations of regret intensity with the most important care-related regret, number of recent care-related regrets, and coping strategies, using regressions models.”	“Among 775 respondents, most reported very good SRH and 9.7% indicated absence from work during four working days or more. Intensity of the most important regret was associated with poor SRH among nurses and physicians, and with higher sick leave among nurses. Maladaptive emotion-focused strategies were associated with poor SRH among nurses, whereas adaptive emotion-focused strategies were positively associated with higher SRH and lower sick leave among physicians.”	“Because care-related regret is an integral part of clinical practice in acute care hospitals, helping physicians and, especially, nurses to learn how to deal with negative events may yield beneficial consequences at the individual, patient care, and institutional level.”
Daniel 2012	Bedside resource	Commentary	NA	NA	"One provider describes her	NA	NA	"A better paradigm for the ethical care of

	stewardship in disasters: A provider's dilemma practicing in an ethical gap				experience allocating an oxygen tank in the intensive care unit at a hospital in Port-au-Prince, Haiti, immediately following the 2010 earthquake. Using a clinical vignette and reflective narrative she attempts to identify the factors that influenced her allocation decision, opening up the factors for commentary and debate by an ethicist."			patients during disasters is needed to better guide provider choices in the future."
Davidson et al. 2015	Workplace Blame and Related Concepts: An Analysis of Three Case Studies	Case series	NA	NA	"Blame has been thought to affect quality by decreasing error reporting. Very little is known about the incidence, characteristics, or consequences of the distress caused by being blamed. Blame-related distress (B-RD) may be related to moral distress, but may also be a factor in burnout,	"The following anonymized, real-scenario-based cases are presented to help gain a better understanding of how blame impacts clinicians in the workplace."	"The distress caused by blame could result in a loss of moral integrity or the feeling that core values and duties have been violated. It is possible that actions known to minimize or reduce moral distress given the current definition could extend not only to situations where	"Health-care leaders are often in the position of reviewing perceived medical errors with negative patient outcomes with hospital staff. In most cases, negative outcomes are not caused by willful acts of harm, but instead by human error, slip, or lapse; organizational process failures; or

					compassion fatigue, lateral violence, and second-victim syndrome. The purpose of this article is to explore these related concepts through a literature review applied to three index critical care clinician cases."		distress occurs from inaction, but also when blame occurs following action and results in a negative patient outcome. There is no literature regarding these hypotheses at this time."	insufficient resources. Looking back on these index cases, it is important to frame case reviews in the workplace in a way that will not result in perceived blame. Leaders can teach staff how to investigate and debrief following a negative patient outcome in a way that does not incur blame, cultivating an environ- ment of performance improvement instead of punishment to prevent B-RD. The distress caused by blame should foster proactive reaching out to provide support to those who may be affected by a negative patient outcome."
DeBoer et al. 2020	Applying Lessons Learned From Low-Resource	Comment ary	NA	NA	"The coronavirus disease 2019 (COVID-19) pandemic has forced	NA	"Lessons learned from real-world experiences are myriad. First, in the	"Although the need to triage cancer care may be new to those who underwent

	Settings to Prioritize Cancer Care in a Pandemic				oncology clinicians and administrators in the United States to set priorities for cancer care owing to resource constraints. As oncology practices adapt to a contracted health care system, expertise gained from partnerships in low-resource settings can be used for guidance. This article provides a primer on priority setting in oncology and ethical guidance based on lessons learned from experience with cancer care priority setting in low-resource settings."		setting of limited resources, a utilitarian approach to maximizing survival benefit should guide decision-making. Second, conflicting principles will often arise among stakeholders and decision makers. Third, fair decision-making procedures should be established to ensure moral legitimacy and accountability. Fourth, proactive safeguards must be implemented to protect vulnerable individuals, or disparities in cancer treatment and outcomes will only widen further. Fifth, communication with patients and families about priority setting decisions should be intentional and	training and now practice oncology in high-resource settings, it is familiar for those who practice in low- and middle-income countries. Oncologists in the United States facing unprecedented decisions about prioritization can draw on ethical frameworks and lessons learned from real-world cancer care priority setting in resource-constrained environments."

							standardized. Sixth, moral distress among clinicians must be addressed to avoid burnout during a time when resilience is critical."	
Deep et al. 2008	"Thanks for letting me vent": Moral distress in physicians	Quantitative	5.5	NA	“Moral distress can arise when healthcare providers are constrained from implementing the course of action they deem ethically appropriate due to institutional obstacles or conflict with others about values. This construct has been extensively studied in nursing but has received little attention in physicians.”	“We adapted an existing Moral Distress scale for use in physicians. The instrument contains 17 brief clinical scenarios such as professional competence, substandard care, end of life care, and workload. Respondents were asked to rate both the frequency of occurrence and the severity of distress using a 5-point Likert scale. An open	“125 physicians completed the survey for a response rate of 60%. This sample included 72% trainees and 28% attendings; 62% were male. The scenarios rated highest in frequency involved providing extensive life-sustaining treatment against the physician’s judgment (rated 4 or 5 on a 5-point scale by 42%) and caring for a higher number of patients than is reasonable (40%). Scenarios most likely to receive	“Physicians are at risk for moral distress especially when providing life-sustaining treatment, dealing with surrogate deci- sion makers and when enduring a high workload. The subjective experience varies among trainees and attending physicians. The etiologies and consequences deserve further study to improve physician satisfaction and patient care.”

						response item asked respondents to describe the time when they experienced the greatest moral distress in clinical practice. The anonymous survey was administered to attending physicians and trainees who provide care to seriously-ill adult inpatients including internal medicine and subspecialties, neurology, family medicine and general surgery. Surveys were administered at departmental confer- ences or via mail. We analyzed the	high ratings for severity of distress include initiating extensive treat- ments believed only to prolong death (73% of respondents rating 4 or 5) or following the wishes of surrogate decision makers with regards to end-of-life care (70%). Two workload scenarios also received high ratings (68%, 69%). Overall years experience was correlated with increasing distress in trainees but not attending physicians. Increasing critical care experience was positively correlated with distress in housestaff ($p < 0.05$) but negatively correlated for attendings ($p < 0.05$). Gender was	

						data using SAS including descriptive statistics and correlation matrices. Two independent raters performed content analysis via an iterative process on the open response data.”	not predictive of moral distress. Content analysis revealed respondents describe the most distress in dealing with surrogate decision makers with 21of 53 open responses containing this theme. This most often was described when caring for patients near the end-of- life (10). Providing sub-optimal care and inadequate information sharing were also commonly identified themes.”	
Dodek et al. 2013	The relationship between moral distress and adverse safety events in intensive care units	Quantitative	10	NA	"The purpose of this study was to examine the relationship between moral distress in ICU staff and unplanned extubations, as an example of an adverse safety event."	"We administered the Moral Distress Scale survey (Hamric 2012) to all ICU professionals in 13 ICUs in southwest British	"There were 14,664 patients admitted to these ICUs during the 2-year period; 7909 patients were mechanically ventilated during their ICU stay and 271 had an unplanned	"There is no or at most a weak association between moral distress in ICU staff and unplanned extubations."

						Columbia, Canada. Over the same period (2010-2011), we collected data about unplanned extubations in these same ICUs. We used Cox proportional hazards models to determine the association between average moral distress score per site and time to unplanned extubations (for each of nurses, physicians, and other health professionals). The models were adjusted for patient characteristics (age, APACHE II score, and sex) and number of ICU beds.	extubation . We used data only from the 7 sites that had at least 8 unplanned extubations over the study period. Average moral distress score was 87.8 + 18 (SD) for nurses, 59.5 + 16.1 for physicians, and 82.7 + 24.5 for other health professionals at these sites. Unplanned extubation rate ranged from 2.2-5.1%. In multivariate analyses for each profession, moral distress score was not associated with unplanned extubations."	

						Sites were treated as clusters. Patients who did not have an unplanned extubation were censored at ICU discharge."		
Dodek et al. 2016	Moral distress in intensive care unit professionals is associated with profession, age, and years of experience	Quantitative	8	NA	"To determine which demographic characteristics are associated with moral distress in intensive care unit (ICU) professionals."	"We distributed a self-administered, validated survey to measure moral distress to all clinical personnel in 13 ICUs in British Columbia, Canada. Each respondent to the survey also reported their age, sex, and years of experience in the ICU where they were working. We used multivariate, hierarchical	"Nurses and other health professionals had higher moral distress scores than physicians. Highest ranked items associated with moral distress were related to cost constraints and end-of-life controversies. Multivariate analyses showed that age is inversely associated with moral distress, but only in other health professionals (rate ratio [95% confidence interval]: −7.3 [−13.4, −1.2]); years of experience is directly associated	"Moral distress is higher in ICU nurses and other non-physician professionals than in physicians, is lower with older age for other non-physician professionals but greater with more years of experience in nurses, and is associated with tendency to leave the job."

						regression to analyze relationships between demographic characteristics and moral distress scores, and to analyze the relationship between moral distress and tendency to leave the workplace."	with moral distress, but only in nurses (rate ratio (95% confidence interval):10.8 [2.6, 18.9]). The moral distress score is directly related to the tendency to leave the ICU job, in both the past and present, but only for nurses and other non-physician health professionals."	
Dodek et al. 2018	Comparison of Moral Distress and Burnout Among Residents in Specialty Programs	Quantitative	6	NA	"Moral distress and burnout are important causes of attrition in health care providers. These constructs have been measured in residents from individual programs, but we are not aware of comparisons of these measures across different specialties within the same faculty of medicine."	"In this cross-sectional study, we distributed the Moral Distress Scale-Revised (MDS-R) and the Maslach Burnout Inventory (with permission) electronically to all residents within the Pediatrics, Psychiatry, and Family	"In July 2017, surveys were distributed to 26, 33, and 140 residents in Pediatrics, Psychiatry, and Family Medicine, respectively. Complete response rates were 65%, 82%, and 84% respectively. In Pediatrics, moral distress was higher in year 3 and 4 than in year 2, PA was lower in year 3 and	"Differences in moral distress and burnout across years of training and across training programs may point to successful strategies and opportunities for improvement."

						Medicine programs at the University of British Columbia. No personal identifiers were collected. We used analysis of variance, Kruskal- Wallis tests, and t-tests to compare scores across years within each specialty, and across specialties (by year); we correlated MDS-R scores with each component of burnout (emotional exhaustion (EE), depersonalizatio n (DP), personal accomplishment (PA))."	4 than in year 2 and moral distress correlated with PA (r = -0.6). In Psychiatry, there were no significant differences across years and no correlations between moral distress and components of burnout. In Family Medicine, moral distress and DP were higher in year 2 than in year 1, and moral distress correlated with EE (r = 0.5) and DP (r = 0.4). For year 2, moral distress was greater in Psychiatry than in Pediatrics, and PA was greater in Pediatrics than in Family Medicine. There were no other differences across programs, by year."	
Dodek et al. 2019	Moral distress in intensive care unit personnel is	Quantitati ve	10	NA	"To examine the association between moral distress in ICU	"In 13 ICUs, we measured moral distress once in	"In the pharmacy study, there were almost no significant	"Moral distress in ICU personnel is generally not

	not consistently associated with adverse medication events and other adverse event				personnel, and medication errors and adverse events, and other adverse events."	all ICU staff, and incidence of five explicity-defined adverse safety events over 2 years. In 10 of the ICUs, pharmacists tabulated medication errors and adverse events during 1 day in the 2-year period. Average moral distress scores for each professional group were correlated with each safety measure."	correlations between moral distress and measures of medication safety. However, higher moral distress in nurses was associated with more interceptions of near misses per administration error ($r = 0.68$, $p = 0.04$), and higher moral distress in physicians was associated with more incorrect measurements for medication monitoring per recommended action for monitoring ($r = 0.68$, $p = 0.03$). For the other adverse events, the only significant association was a positive association between moral distress in physicians and bleeding while on	associated with medication errors or adverse events, or other adverse events, but it may be associated with both hyper-vigilance and distraction."

							anticoagulants (OR: 1.1; 95% CI: 1.0–1.3)."	
Dodek et al. 2019	Moral distress is associated with general workplace distress in intensive care unit personnel	Quantitative	8	NA	"To assess the association between moral distress and general workplace distress in intensive care unit (ICU) personnel."	"We administered the Moral Distress Scale Revised and the Job Content Questionnaire to all clinicians (870 nurses, 68 physicians, 452 other health professionals) in 13 ICUs (3 tertiary, 3 large community, 7 small community) in British Columbia, Canada. We used mixed effects regression, treating ICUs as clusters, to examine the association between the Moral Distress	"Nurses and other health professionals had higher moral distress scores than physicians, but there were no differences in general workplace distress scores among professional groups. After adjustment for demographic characteristics, higher moral distress in nurses was associated with lower decision latitude and social support, and with higher psychological stressors and psychological strain. For physicians and other professionals, these relationships were similar."	"Moral distress is associated with general workplace distress in ICU personnel. Interventions that ameliorate either type of distress may also ameliorate the other."

						Score and each Job Content Questionnaire scale (decision latitude, psychological stressors, social support, psychological strain) after adjusting for age, sex, and years of experience of respondents; separate analyses were done for each profession."		
Dodek et al. 2020	Moral Distress and Other Wellness Measures in Canadian Critical Care Physicians	Quantitative	9	NA	"To understand the magnitude of moral distress and other measures of wellness in Canadian critical care physicians, to determine any associations among these measures, and to identify potentially modifiable factors."	"This was an online survey of Canadian critical care physicians whose email addresses were registered with either the Canadian Critical Care Society or the Canadian	"Respondents reported moderate levels of moral distress (107 + 59; mean + SD, maximum 432), one-third of respondents had considered leaving or had previously left a position due to moral distress, about one-third met	"Canadian critical care physicians report moderate levels of moral distress, burnout, and compassionate fatigue, and moderate-high levels of compassion satisfaction and resilience. We found no modifiable factors associated with any

						Critical Care Trials Group. We used validated measures of moral distress, burnout, compassion fatigue, compassion satisfaction, and resilience. We also measured selected individual, practice, and workload characteristics."	criteria for burnout syndrome and a similar proportion reported medium-high levels of compassion fatigue. In contrast, about one-half of respondents reported a high level of compassion satisfaction and overall, respondents reported a moderate level of resilience. Each of the 'negative' wellness measures (moral distress, burnout, and compassion fatigue) was associated directly with each of the other 'negative' wellness measures, and inversely with each of the 'positive' wellness measures (compassion satisfaction and resilience), but	wellness measures. Further quantitative and qualitative studies are needed to identify interventions to reduce moral distress, burnout and compassion fatigue."

							moral distress was not associated with resilience. Moral distress was lower in respondents who were married or partnered compared to those who were not, and prevalence of burnout was lower in respondents who had been in practice for longer. There were no differences in any of the wellness measures between adult and pediatric critical care physicians."	
Dombrecht et al. 2020	Psychological support in end-of-life decision-making in neonatal intensive care units: Full population survey among neonatologists and neonatal nurses	Quantitative	9.5	NA	"To evaluate perceived psychological support in relation to end-of-life decisions of neonatologists and nurses working in Flemish neonatal intensive care units and to analyse whether or not this support is sufficient."	"A self-administered questionnaire was sent to all neonatologists and neonatal nurses of all eight Flemish neonatal intensive care units (Belgium) in May 2017.	"About 70% of neonatologists and nurses reported experiencing more stress than normal when confronted with an end-of-life decision; 86% of neonatologists feel supported by their colleagues when they make end-of-	"Even though neonatal intensive care unit colleagues generally support each other in difficult end-of-life decisions, the psychological support provided by their department is currently not sufficient. Professional ad hoc

						The response rate was 63% (52/83) for neonatologists and 46% (250/527) for nurses. Respondents indicated their level of agreement (5-point Likert-type scale) with seven statements regarding psychological support."	life decisions, 45% of nurses feel that the treating physician listens to their opinion when end-of-life decisions are made. About 60% of both neonatologists and nurses would like more psychological support offered by their department when confronted with end-of-life decisions, and 41% of neonatologists and 50% of nurses stated they did not have enough psychological support from their department when a patient died. Demographic groups did not differ in terms of perceived lack of sufficient support."	counselling or standard debriefings could substantially improve this perceived lack of support."
Ducharlet et al. 2020	Moral Distress in Nephrology: Perceived	Perspecti ve	NA	NA	"This article offers an international perspective on moral	"We examine moral distress relating to	"Illustrative cases of moral distress in Health Care	"Nephrology is replete with clinical situations that may

	Barriers to Ethical Clinical Care				distress in nephrology in diverse contexts and health care systems. We examine and discuss the sociocultural factors that contribute to moral distress in nephrology and offer suggestions for interventions from individual provider, facility, and health care systems perspectives to reduce the impact of moral distress on nephrology provider"	clinicians in nephrology, including experienced physicians, physician trainees and extenders, and nursing staff in diverse situations. Case scenarios adapted from authors' experiences highlight various sources of moral distress in health care systems."	Providers" involving "resource constraints, treatment decision making, patient's withdrawal from dialysis and managing power dynamics".	precipitate moral distress. The challenge for health professionals, nephrology practices, institutions, and societies is how to acknowledge, manage, and lessen moral distress. Our ability to support and sustain ourselves and those around us depends on this response."
Dunham et al. 2020	A Bioethical Perspective for Navigating Moral Dilemmas Amidst the COVID-19 Pandemic	Commentary	NA	NA	"Our goal was to provide a framework for considering how a global pandemic changes our moral responsibilities."	NA	"In nonpandemic environments, clinicians operate within a framework of what we can think of as "standard" clinical ethics. Their duties and responsibilities most often arise from the clinical encounter—a clinician, a patient,	"Collective ethics work best within a consensus framework, where governments and hospitals create sound advice on how to allocate resources. If clinicians are forced to allocate resources at the bedside, they betray the values that have

							and often a family. Pandemic environments, however, bring challenges that can only be addressed by moving to a public health ethics frame. The standard question of what I ought to do is modified to what we, as a cohort, ought to do." "Understanding the perspective of collective ethics helps the clinician understand system-based decisions. However, a clinician still is called to serve their specific patient and must still apply clinical ethics to everyday practice, which can result in significant distress when institutional restrictions prevent a clinician from doing	dominated their clinical practice…. The shifted priorities in collective ethics require a level of impartiality and consensus. For this reason, the dilemmas that demand a perspective of collective ethics should be brought to a separate, impartial triaging committee that makes consistently just and equitable decisions based on the consensus values."

							what they think to be their obligation to a particular patient.”	
Dzeng 2016	Moral Distress Amongst Physician Trainees Regarding Futile Treatments	Commentary	NA	NA	"I thank Dr. Adams for her interest and engagement with our article on physician trainee moral distress regarding potentially futile treatments at the end of life."	NA	"Focusing on residents’ knowledge base, however, delegitimizes the residents’ individual perception and beliefs, and detracts attention from the reality that moral distress can be a significant part of the residents’ experience."	"Interventions could focus on creating a culture of openness towards ethical and emotional debriefing following difficult cases. Prospective preparation throughout medical training would help equip trainees with the ethical vocabulary necessary to reflect upon serious moral issues surrounding death and dying."
Dzeng 2016	Moral Distress Amongst Physician Trainees Regarding Futile Treatments	Commentary	NA	NA	NA	NA	"Focusing on residents’ knowledge base, however, delegitimizes the residents’ individual perception and beliefs, and detracts attention from the reality that moral distress can be a significant part of	"I believe we owe it to the young physicians we train to help them become not only clinically competent physicians, but also ethical and compassionate carers."

							the residents' experience. Interventions could focus on creating a culture of openness towards ethical and emotional debriefing following difficult cases. Prospective preparation throughout medical training would help equip trainees with the ethical vocabulary necessary to reflect upon serious moral issues surrounding death and dying."	
Dzeng 2017	Navigating the Liminal State Between Life and Death: Clinician Moral Distress and Uncertainty Regarding New Life-Sustaining Technologies	Perspecti ve	NA	NA	Commentary on clinicians who feel "uncertainty surrounding the treatment of dying patients with LVADs and other new technologies such as Extra-corporeal Membranous Oxygenation (ECMO)	NA	"New technologies like ECMO promote "liminal states between life and death" that "create uncertainty around what constitutes death in patients, causing anxiety and moral distress."	1) Medical education for non-specialists 2) "Develop strategies to address palliative care and advance care planning (ACP)" 3) "Recognize different moral economies surrounding end-of-life care and how that might contribute to moral distress within

								inter-professional teams" 4) "Developing ethical framework and clinical consensus guidelines on defining death in patient on ECMO and with LVADs"
Dzeng et al, 2016	Moral Distress Amongst American Physician Trainees Regarding Futile Treatments at the End of Life: A Qualitative Study	Qualitative	NA	15	"To understand the magnitude of moral distress and other measures of wellness in Canadian critical care physicians, to determine any associations among these measures, and to identify potentially modifiable factors."	"This was an online survey of Canadian critical care physicians whose email addresses were registered with either the Canadian Critical Care Society or the Canadian Critical Care Trials Group. We used validated measures of moral distress, burnout, compassion fatigue, compassion	"Of the 499 physicians surveyed, 239 (48%) responded and there were 225 usable surveys. Respondents reported moderate levels of moral distress (107 +/- 59; mean +/- SD, maximum 432), one-third of respondents had considered leaving or had previously left a position due to moral distress, about one-third met criteria for burnout syndrome and a similar proportion reported medium-	"Canadian critical care physicians report moderate levels of moral distress, burnout, and compassionate fatigue, and moderate-high levels of compassion satisfaction and resilience. We found no modifiable factors associated with any wellness measures. Further quantitative and qualitative studies are needed to identify interventions to reduce moral distress, burnout and compassion fatigue."

						satisfaction, and resilience. We also measured selected individual, practice, and workload characteristics."	high levels of compassion fatigue. In contrast, about one-half of respondents reported a high level of compassion satisfaction and overall, respondents reported a moderate level of resilience. Each of the 'negative' wellness measures (moral distress, burnout, and compassion fatigue) was associated directly with each of the other 'negative' wellness measures, and inversely with each of the 'positive' wellness measures (compassion satisfaction and resilience), but moral distress was not associated with resilience. Moral distress was lower in	

							respondents who were married or partnered compared to those who were not, and prevalence of burnout was lower in respondents who had been in practice for longer. There were no differences in any of the wellness measures between adult and pediatric critical care physicians."	
Dzeng et al. 2017	Physician trainees' experiences of moral distress regarding potentially futile treatments at the end of life in the United Kingdom: A qualitative study	Qualitative	NA	NA	"Moral distress, the inability to act in accordance with one's ethical beliefs due to hierarchical or institutional constraints, has been associated with burnout and poorer well-being. Significant moral distress amongst American physician trainees might occur when they feel obligated to provide	"We conducted semi-structured in-depth interviews with 14 junior doctors (equivalent of residents and fellows) in the UK regarding moral distress and attitudes surrounding do-not-resuscitate (DNR) decision-making.	"UK trainees infrequently experienced feelings of ethical conflict surrounding resuscitation, though some respondents did note one or two rare but notable cases of resuscitation they felt were inappropriate. Themes that arose included a feeling of shared attitudes	"Taken together with the US data previously described in Dzeng, et al., 2016, we describe different degrees of moral distress and distress surrounding potentially futile care and resuscitation at the end of life between US and UK trainees. We hypothesize that UK policies and culture allow physicians to

					treatments at the end of life that they believe to be futile or harmful. Policies in the United Kingdom permit physicians to make a decision to withhold or abort resuscitation that they believe would be inappropriate or ineffective following discussions with the family. The aim of this study was to explore whether moral distress surrounding resuscitation at the end of life occurred in the UK, a country whose health policies surrounding end of life care are notably different than those in the United States."	Interviews, which were audio-taped and professionally transcribed, lasted an average of 60 minutes. Transcripts were analyzed and double coded using thematic analysis. Themes and patterns emerged from initial interviews and analysis, and were refined and validated in subsequent interviews through questions added to the interview guide and probing of key themes during the interviews."	around providing care that was in a patient's best interest. Please see Table 1 for example quotations of UK junior doctors. Distress instead appeared to arise from other areas such as insufficient resources or personnel to provide optimal care and a lack of control over the nature of their work."	withhold inappropriate or ineffective resuscitation, allowing physicians to act in ways that are in accordance with their ethical beliefs. Different policies surrounding resuscitation at the end of life in the US and UK might contribute to different degrees of moral distress amongst physician trainees regarding potentially futile treatments at the end of life."
Epstein EG, 2008	End-of-life experiences of nurses and	Qualitative	NA	14	"Thus, the purpose of the larger study from which this article was	"A hermeneutic phenomenology of health-care	"Twenty-one nurses and 11 physicians were interviewed.	"A primary finding of this study was that a common overall

	physicians in the newborn intensive care unit				derived was to explore the EOL phenomenon in the NICU by combining and comparing the lived EOL experiences of parents, nurses and physicians."	providers' lived experiences with infant deaths in the newborn intensive care unit between January and August 2006 was conducted. Semistructured interviews were completed with individual providers. Demographic data were also collected. Analysis of themes and descriptive statistics were performed."	Providers described their experiences largely through an overall theme of 'creating the best possible experience' for parents. To support this theme, three subthemes (building relationships, preparing for the EOL and creating memories) were common between physicians and nurses. However, nurses and physicians articulated their roles and obligations differently within these subthemes. Additionally, three subthemes through which the providers described their personal experiences were found and these included moral distress, parental readiness and	obligation among nurses and physicians was to create the best possible experience for parents. Despite this commonality, the two disciplines approached the EOL and accomplished their common obligation from different vantage points."

							consent for autopsy."	
Epstein et al. 2019	Enhancing Understanding of Moral Distress: The Measure of Moral Distress for Health Care Professionals	Quantitative	10.5	NA	"As ongoing research explores the impact of moral distress on health care professionals (HCPs) and organizations and seeks to develop effective interventions, valid and reliable instruments to measure moral distress are needed. This article describes the development and testing of a revision of the widely used Moral Distress Scale–Revised (MDS-R) to measure moral distress."	"We revised the MDS-R by evaluating the combined data from 22 previous studies, assessing 301 write-in items and 209 root causes identified through moral distress consultation, and reviewing 14 recent publications from various pro- fessions in which root causes were described. The revised 27-item scale, the Measure of Moral Distress for Healthcare Professionals (MMD-HP), is usable by all HCPs in adult	"In total, 653 surveys were included in the final analysis. The MMD-HP demonstrated good reliability. The four hypotheses were supported: (1) MMD-HP scores were higher for nurses (M 112.3, SD 73.2) than for physicians (M 96.3, SD 54.7, p 0.023). (2) MMD-HP scores were higher for those considering leaving their position (M 168.4, SD 75.8) than for those not considering leaving (M 94.3, SD 61.2, $p<0.001$). (3) The MMD-HP was negatively correlated with the HECS (r –0.55, $p < 0.001$). (4) An exploratory factor	"The MMD-HP represents the most currently understood causes of moral distress. Because the instrument behaves as would be predicted, we recommend that the MMD-HP replace the MDS-R."

						and pediatric critical, acute, or long-term acute care settings. We then assessed the reliability of the MMD-HP and evaluated construct validity via hypothesis testing. The MMD-HP, Hospital Ethical Climate Survey (HECS), and a demographic survey were distributed electronically via Qualtrics to nurses, physicians, and other health care professionals at two academic medical centers over a 3-week period."	analysis revealed a four-factor structure, reflective of patient, unit, and system levels of moral distress."	
Eves et al. 2015	Conflicting Values: A Case	Case study	NA	NA	"Exploring the experiences of one	"Management strategies to	"The authors then describe one	"An ethics consultation service

	Study in Patient Choice and Caregiver Perspectives				pregnant woman and her caregivers, this case study highlights how bias may undermine caregivers' ability to meet their obligation to enhance patient autonomy and the moral distress they may experience when a patient's values do not align with their own."	mitigate the potential impact of bias and related moral distress are identified."	management strategy used in this case, facilitated ethics consultation, which is focused on thoughtful consideration of the patient's perspective."	can play an instrumental role in supporting the caregiving team in meeting this obligation in several ways. Illustrating one of those ways, the case study above describes how one ethics consult service used a perspective–taking approach and facilitated reflective discussion of the plurality of values. It demonstrates how this method can help caregivers reconcile their own values with the patient's when they do not align, in order to optimize the care environment and meet their professional ethical duties."
Flood et al. 2020	Challenges in the provision of kidney care at the largest public	Qualitative	NA	19	"Chronic kidney disease (CKD) is increasing worldwide, and the majority of the CKD burden is in	"Semi-structured interviews were performed with 21 health professionals	"Health professionals most frequently described challenges in providing high-	"Health professionals at the largest public nephrology center in Guatemala described multiple strategies to

	nephrology center in Guatemala: a qualitative study with health professionals				lowand middle-income countries (LMICs). However, there is wide variability in global access to kidney care therapies such as dialysis and kidney transplantation. The challenges health professionals experience while providing kidney care in LMICs have not been well described. The goal of this study is to elicit health professionals' perceptions of providing kidney care in a resource-constrained environment, strategies for dealing with resource limitations, and suggestions for improving kidney care in Guatemala."	recruited through convenience sampling at the largest public nephrology center in Guatemala. Health professionals included administrators, physicians, nurses, technicians, nutritionists, psychologists, laboratory personnel, and social workers. Interviews were recorded and transcribed in Spanish. Qualitative data from interviews were analyzed in NVivo using an inductive approach, allowing dominant	quality care due to resource limitations. Reducing the frequency of hemodialysis, encouraging patients to opt for peritoneal dialysis rather than hemodialysis, and allocating resources based on clinical acuity were common strategies for reconciling high demand and limited resources. Providers experienced significant emotional challenges related to high patient volume and difficult decisions on resource allocation, leading to burnout and moral distress. To improve care, respondents suggested increased budgets for equipment and personnel,	meet the rising demand for renal replacement therapy. Due to systems-level limitations, health professionals faced difficult choices on the stewardship of resources that are linked to sentiments of burnout and moral distress. This study offers important lessons in Guatemala and other countries seeking to build capacity to scale-up kidney care."

						themes to emerge from interview transcriptions."	investments in preventative services, and decentralization of services"	
Førde and Aasland 2008	Moral distress among Norwegian doctors	Quantitative	10.5	NA	"To describe whether Norwegian doctors experience stress related to ethical dilemmas and lack of resources, and to explore whether the doctors feel that they have good strategies for the resolution of ethical dilemmas."	"Postal survey of a representative sample of 1497 Norwegian doctors in 2004, presenting statements about different ethical dilemmas, values and goals at their workplace."	"The response rate was 67%. 57% admitted that it is difficult to criticise a colleague for professional misconduct and 51% for ethical misconduct. 51% described sometimes having to act against own conscience as distressing. 66% of the doctors experienced distress related to long waiting lists for treatment and to impaired patient care due to time constraints. 55% reported that time spent on administration and documentation is distressing. Female doctors experienced	"Lack of resources creates moral dilemmas for physicians. Moral distress varies with specialty and gender. Lack of strategies to solve ethical dilemmas and low tolerance for conflict and critique from colleagues may obstruct important and necessary ethical dialogues and lead to suboptimal solutions of difficult ethical problems."

							more stress that their male colleagues. 44% reported that their workplace lacked strategies for dealing with ethical dilemmas.”	
Fujii et al. 2021	Translation and validation of the Japanese version of the measure of moral distress for healthcare professionals	Quantitative	12	NA	"Moral distress occurs when professionals cannot carry out what they believe to be ethically appropriate actions because of constraints or barriers. We aimed to assess the validity and reliability of the Japanese translation of the Measure of Moral Distress for Healthcare Professionals (MMD-HP)."	"We translated the questionnaire into Japanese according to the instructions of EORTC Quality of Life group translation manual. All physicians and nurses who were directly involved in patient care at nine departments of four tertiary hospitals in Japan were invited to a survey to assess the construct validity, reliability and	"308 responses were eligible for the analysis. The mean total score of MMD-HP (range, 0–432) was 98.2 (SD, 59.9). The score was higher in those who have or had the intention to leave their clinical role due to moral distress than in those who do not or did not have the intention of leaving. The confirmatory factor analysis and Cronbach’s alpha confirmed the validity and reliability of the instrument."	"The translated Japanese version of the MMD-HP is a reliable and valid instrument to assess moral distress among physicians and nurses."

						factor structure. Construct validity was assessed with the relation to the intention to leave the clinical position, and internal consistency was assessed with Cronbach's alpha. Confirmatory factor analysis was conducted."		
Gordon 2014	Moral distress caused by an uncertain prognosis: when the surrogate and the physician bring different priorities to the discussion	Commentary	NA	NA	"Our case describes a patient with acute disseminated encephalomyelitis (ADEM) severe enough to require intensive care unit (ICU) care."	NA	NA	"The ethics consultant is uniquely positioned to help all parties explore the sources of conflict, which, brought to the surface, can then become a source of fruitful discussion and, one hopes, reconciliation."
Grady 2015	Surgical medicine: imperfect and extraordinary	Commentary	NA	NA	"Twelve powerful stories recount memorable experiences of surgeons."	NA	"The themes that emerge from these rich narratives by surgeons are familiar ones in the	"Uncertainty is a reality in medicine, and it is often said that medicine is an art, not just a science.

							experiences of diverse health care providers. Questions about and difficulties with communication and with informed consent are common and troubling. Uncertainty was also a prevalent theme in these stories, uncertainty about the right thing to do or say and about how to treat the patients and families the surgeons wrote about."	Although in medicine it is uncommon to find a situation so black and white that the course of action is obvious, this may be less true in surgery. Surgeons are prototypically confident in their recommendations. Yet, these surgeons poignantly describe uncertainty. Sometimes the uncertainty leads to careful reflection, taking a stand, or changing practice, and sometimes it lead to moral distress."
grauerholz et al. 2020	Fostering Vicarious Resilience for Perinatal Palliative Care Professionals	Qualitative	NA	NA	"The demands on healthcare professionals caring for familiesgrappling with a life-limiting condition in an unborn or newly born child can be overwhelming. Clinicians working in emergency/trauma,	"A scoping review of the research literature was conducted in order to distinguish the barriers and facilitators of professional resiliency in	"The research indicated that medical professionals often cite a lack of knowledge, inexperience using effective communication skills related to perinatal palliative	"Support should be strategic and multifaceted. The onus to implement salient measures to cultivate resilience in the perinatal palliative caregiver should not be only upon the individuals themselves but also

					hospice, and pediatric settings are already at high risk for burnout and compassion fatigue, which can leavehealthcareinstitutions increasingly vulnerable to poor retention, absenteeism, and waning quality of care. The provision of exemplary palliative care requires a cohesive interdisciplinary team of seasoned professionals resilient to daily challenges. In September 2019, the American College of Gynecology, in a committee opinion, published standard of care guidelines for perinatal palliative care. This has created an impetus for exceptional caregiving and agreater demand forbothphysician and	perinatal palliative care. PubMed, Medline, CINAHL, and EBSCO Psychology & Behavioral Sciences Collections were systematically reviewed. Because of the paucity of studies specific to perinatal palliative care, several interviews of nurses and physicians in that field were conducted and analyzed for content distinctly pertaining to personal practices or workplace factors that support or	care and bereavement, challenges with interdisciplinary collaboration, misconceptions about the role and function of palliative care in the perinatal or neonatal settings, moral distress, and workload challengesasencumbrances to professional satisfaction. Strategic implementation of facility-wide bereavement care training, effective communication modalities, and evidenced-based practical applications are critical components for a thriving perinatal palliative care team. Authentic formal and informal debriefing, peer	upon prevailing regulatory governing bodies and healthcare institutions."

					interdisciplinary healthcare provider education, training, and ongoing support that promotes truly beneficentcarefor pregnant patients confronted with life-limiting fetal conditions."	hinder professional resiliency."	mentoring, adequate caseloads, robust provider self-care practices, exceptional relational efficacy, and cultural and spiritual humility can foster personal growth and even vicarious resilience for perinatalpalliative careprofessionals."	
Green et al. 2016	Difficult Discharge in Pediatric Rehabilitation Medicine Causing Moral Distress	Case study	NA	NA	To present and discuss a case in which the “different ethical analyses that might each mitigate the moral distress of health care providers” can be explored.	NA	"We present one example of a morally distressing situation in which care was provided for a child who had altered physical abilities after a trauma and was being discharged to a suboptimal family environment. Caring for a child with an acquired spinal cord injury requires significant resources. When a family is able to	"Health care personnel in pediatric rehabilitation settings often face ethical dilemmas. These might result in moral distress. Applying ethical standards to such dilemmas might be useful in guiding staff to decisions that mitigate moral distress. However, applying BIS and upholding parental authority to this case did not result in likely reductions in staff

							physically care for the child, but has demonstrated incomplete follow-through, the team is at risk for experiencing significant moral distress."	distress. Other ethical standards or systems beyond principalism—perhaps narrative ethics—might be valuable to explore and might mitigate staff moral distress in future cases."
Green et al. 2017	Moral Distress in Rehabilitation	Perspective	NA	NA	"Hopefully, these 3 pieces will help you better to identify your own experiences of moral distress when they occur and give you tools to begin thinking about how to address them."	"In this column, we offer 3 perspectives to better understand and appreciate the experience of moral distress in physical medicine and rehabilitation (PM&R)."	NA	The 3 perspectives of moral distress shared on the "first-hand experiences of moral distress in the rehabilitation setting and how [the author] has learned to address these experiences", "defines moral distress in contrast to conscientious objection in health care", and "unpacks the complexities of a moral distress experience in PM&R health care professionals—and notes hazards that may be specific to those clinicians who

								care for patients over long periods of time".
Halper et al. 2020	Promoting Resident Wellness: A Novel Clinic Scheduling Model during Pediatric Intensive Care Unit Rotations	Quantitative	6.5	NA	"To implement and evaluate a novel continuity clinic schedule and measure changes in moral distress and continuity of care."	"Each pediatric resident was scheduled for one half- day continuity clinic session and one full-day continuity clinic session during their PICU rotation. Residents were not scheduled for clinic on a call day. Residents who had completed at least one PICU rotation were invited to fill out a baseline survey on their perceptions of continuity clinic attendance during the PICU rotation. Following implementation	"The pre-intervention survey found over 50% of residents felt moral distress and perceived PICU care was compromised when leaving for clinic. Post-intervention surveys showed a decrease in residents reporting moral distress and compromised PICU care ($p<0.05$). The pre-intervention median score for moral distress was 4 (often) and the post-intervention score was 1 (never). Further, residents who strongly agreed that continuity clinic was an important break from the PICU increased from 13.8% at baseline to 40%	"This novel continuity clinic scheduling model is associated with a decrease in moral distress and improvement in perceived continuity clinic value. Additionally, this model decreased the number of PICU handoffs, which potentially decreased opportunities for medical errors."

						of the new schedule, a post-intervention survey was distributed. Survey questions used Likert scales (range 1-5; 1=never, 5=almost always). Baseline and post-intervention survey data was analyzed using a two- sided Wilcoxon two-sample rank-sum test."	post-intervention. Residents appreciated the real life experience of a full clinic day and reported feeling less distracted in clinic. Finally, the schedule change led to 2.4 fewer PICU handoffs per resident per month."	
Hamric 2010	Moral distress and nurse-physician relationships	Case study	NA	NA	"Differences in nurses' and physicians' perspectives are often brought into sharp relief in end-of-life patient situations."	NA	NA	"Addressing organizational systems that give rise to repeated instances of moral distress with specific attention to interprofessional collaboration will be necessary to create a climate in which Gerard can fulfill his

								obligations as a professional nurse without compromising his integrity."
Hamric et al. 2007	Nurse-physician perspectives on the care of dying patients in critical care units: Collaboration, moral distress and ethical climate	Quantitative	10.5	NA	"To explore registered nurses' and attending physi- cians' perspectives on caring for dying patients in intensive care units (ICUs), with particular attention to the relationships among moral distress, ethical climate, physician/nurse collaboration, and satisfaction with quality of care."	"We developed and pilot tested a survey to study RN/MD perspectives on EOLC in ICUs, using a combination of existing instruments adapted for this study and investigator-designed questions."	"Registered nurses experienced more moral distress and lower collaboration than physicians, they perceived their ethical environment as more negative, and they were less satisfied with the quality of care provided on their units than were physicians. Provider assessments of quality of care were strongly related to perception of collaboration."	"Improving the ethical climate in ICUs through explicit discussions of moral distress, recognition of differences in nurse/physician values, and improving collaboration may mitigate frustration arising from differences in perspective."
Hamric et al. 2012	Development and Testing of an Instrument to Measure Moral Distress in Healthcare Professionals	Quantitative	11	NA	"This article describes the development and testing of a revised measure of moral distress, the Moral Distress Scale–Revised (MDS-R),	"After instrument development and content validity testing, a survey methodology	"Adequate reliability and evidence of construct validity were demonstrated. Moral distress was significantly higher for nurses than	"Initial testing of the MDS-R reveals promising evidence of instrument reliability and validity. The findings from this study lend further

					designed for use in multiple health care settings and with multiple disciplines."	was used to assess reliability and construct validity of the MDS-R. Registered nurses (n = 169) and physicians (n = 37) in eight intensive care units (ICUs) at an academic medical center in the southeastern United States participated; the survey was administered during a 2-week period in January 2011."	physicians, although it was negatively correlated with ethical climate for both provider groups. MDS-R scores were significantly higher for those clinicians considering leaving their positions. The proportion of physicians and nurses who had left a previous position or who were considering leaving their current positions due to moral distress was high (16% and 31%, respectively)."	support to the important relationships between the moral distress of providers, the ethical climate of health care settings, and retention of health care professionals."
Hancock et al. 2020	Understanding burnout and moral distress to build resilience: a qualitative study of an interprofessional intensive care unit team	Qualitative	NA	19	"The purpose of this study was to explore personal and organizational factors that contribute to burnout and moral distress in a Canadian academic intensive care unit (ICU) healthcare team. Both	"This is a qualitative study using focus groups to elicit a better understanding of stakeholder perspectives on burnout and moral distress in	"Six focus groups, each with four to eight participants, were conducted. A total of 35 participants (six MDs, 21 RNs, and eight RTs) represented 43% of the MDs, 18.8% of	"Intensive care unit team members described their experiences with moral distress and burnout, and suggested ways to build resilience in the workplace. Experiences and

					of these issues have a significant impact on healthcare providers, their families, and the quality of patient care. These themes will be used to design interventions to build team resilience."	the ICU team environment. Thematic analysis of transcripts from focus groups with registered intensive care nurses (RNs), respiratory therapists (RTs), and physicians (MDs) considered causes of burnout and moral distress, its impact, coping strategies, as well as suggestions to build resilience."	the RNs, and 20.0% of the RTs. Themes were concordant between the professions and included: 1) organizational issues, 2) exposure to high-intensity situations, and 3) poor team experiences. Participants reported negative impacts on emotional and physical wellbeing, family dynamics, and patient care. Suggestions to build resilience were categorized into the three main themes: organizational issues, exposure to high intensity situations, and poor team experiences."	suggestions were similar between the interdisciplinary teams."
Harrison et al. 2017	Addressing Palliative Care Clinician Burnout in Organizations:	Comment ary	NA	NA	"Efforts to mitigate and prevent burnout currently focus on individual clinicians. However, analysis of	NA	NA	"As a society, we hold organizations responsible for acting ethically, especially when it relates to

	A Workforce Necessity, an Ethical Imperative				the problem of burnout should be expanded to include both individual- and systems-level factors as well as solutions; comprehensive interventions must address both."			deployment and protection of valuable and constrained resources. We should similarly hold organizations responsible for being ethical stewards of the resource of highly trained and talented clinicians through comprehensive programs to address burnout."
Havyer et al. 2017	Update in Hospital Palliative Care: Symptom Management, Communication, Caregiver Outcomes, and Moral Distress	Qualitative	NA	NA	"Updated knowledge of the palliative care (PC) literature is needed to maintain competency and best address the PC needs of hospitalized patients. We critiqued the recent PC literature with the highest potential to impact hospital practice."	"We reviewed articles published between January 2016 and December 2016, which were identified through a handsearch of leading journals and a MEDLINE search. The final 9 articles selected were determined by consensus based	"Key findings include the following: scheduled antipsychotics were inferior to a placebo for nonterminal delirium; a low-dose morphine was superior to a weak opioid for moderate cancer pain; methadone as a coanalgesic improved high-intensity cancer pain; many hospitalized patients	"Recent research provides important guidance for clinicians caring for hospitalized patients with serious illnesses, including symptom management, ACP, moral distress, and outcomes of critical illness."

						on scientific rigor, relevance to hospital medicine, and impact on practice."	on comfort care still receive antimicrobials; video decision aids improved the rates of advance care planning (ACP) and hospice use and decreased costs; standardized, PC-led intervention did not improve psychological outcomes in families of patients with a chronic critical illness; caregivers of patients surviving a prolonged critical illness experienced high and persistent rates of depression; people with nonnormative sexuality or gender faced additional stressors with partner loss; and physician trainees experienced significant moral	

							distress with futile treatments."	
Heinze et al. 2017	Strategies for Promoting High-Quality Care and Personal Resilience in Palliative Care	Commentary	NA	NA	"In this paper, we discuss recommendations related to two promising pathways for supporting palliative care (PC) clinicians in providing high-quality PC: (1) improving systemic PC delivery and (2) strategies to promote ethical practice environments and individual resilience. Enacting these recommendations holds promise for sustaining higher-quality and accessible PC and a more engaged PC workforce."	NA	"PC clinicians have a moral imperative to care for others and to care for themselves. There are currently many barriers to fulfilling these duties: systemically, the provision of high-quality PC is impeded by lack of training opportunities and lack of evidence-based outcomes data. On an individual level, PC clinicians may be plagued by moral distress that can lead to burnout, job dissatisfaction, or leaving the profession. In order to address these challenges, we offer two recommendations. First, PC programs	"Enacting these recommendations holds promise for sustaining higher-quality and accessible PC and a more engaged PC workforce."

							that incorporate the core components of PC outlined in Dying in America should be implemented to ensure delivery of high-quality PC. PC research should also incorporate these core components so that results can be compared across studies. Furthermore, PC education components should be included in general education for all health care clinicians. Second, individual PC clinicians and health care organizations should invest in resources to mitigate the impact of moral distress and build ethical practice environments."	
Henrich et al. 2016	Causes of Moral Distress in the	Qualitative	NA	22	"To examine the causes of moral	"We used focus groups and	"Based on input from 19 staff nurses	"Causes of moral distress vary among

	ICU: A Qualitative Study				distress in diverse members of the ICU team in both community and tertiary ICUs"	coding of transcripts into themes and sub-themes in 2 tertiary care intensive care units and 1 community intensive care unit."	(3 focus groups), 4 clinical nurse leaders (1 focus group), 13 physicians (3 focus groups), and 20 other health professionals (3 focus groups), the most commonly reported causes of moral distress were concerns about the care provided by other health care workers, the amount of care provided (especially too much care at end of life), poor communication, inconsistent care plans, and issues around end of life decision-making."	ICU professional groups but all are amenable to improvement."
Henrich et al. 2017	Consequences of Moral Distress in the Intensive Care Unit: A Qualitative Study	Qualitative	NA	23	"To examine the consequences of moral distress in personnel in community and tertiary intensive care	"Data for this study were obtained from focus groups and analysis of transcripts by themes and sub-	"According to input from 19 staff nurses (3 focus groups), 4 clinical nurse leaders (1 focus group), 13 physicians (3 focus	"In response to moral distress, health care providers experience negative emotional consequences, patient care is perceived to be negatively affected,

					units in Vancouver, Canada."	themes in 2 tertiary care intensive care units and 1 community intensive care unit."	groups), and 20 other health professionals (3 focus groups), the most commonly reported emotion associated with moral distress was frustration. Negative impact on patient care due to moral distress was reported 26 times, whereas positive impact on patient care was reported 11 times and no impact on patient care was reported 10 times. Having thoughts about quitting working in the ICU was reported 16 times, and having no thoughts about quitting was reported 14 times."	and nurses and other health care professionals are prone to consider quitting working in the intensive care unit."
Hilliard et al. 2007	Ethical conflicts and moral distress experienced by paediatric	Qualitative	NA	14	"To identify the ethical conflicts and moral distress experienced by	"Data were collected from four focus groups, which were organized	"While residents occasionally face traditional paediatric ethical issues, such as 'do not	"Paediatric residents experience significant ethical conflicts and moral distress. Understanding these

	residents during their training				paediatric residents during their training."	according to the four separate years of residency training. Focus groups consisting of four to 10 participants were led by a research assistant. The focus groups were recorded by an audio device and transcribed verbatim; all data that would identify any of the participants or staff were eliminated. Data analysis involved a modified thematic analysis. The study was approved by the Research Ethics Board at the	resuscitate' orders, more often they experience conflicts because of their inexperience and their place in the hierarchy of the medical care team, particularly when there is disagreement between trainees and senior staff. Their ability to deal and cope with these issues changes as they go through their training. Many residents in the first part of their training were more frustrated and confused with ethical conflicts. In these cases, residents found their best support from their peers and other senior residents. Residents in the later years of training seemed more accustomed to	ethical issues will help those responsible for postgraduate medical education to review or revise the ethics curriculum in keeping with the current moral distress experienced by residents, and help to mentor and guide trainees."

						Hospital for Sick Children in Toronto, Ontario."	ethical issues. Furthermore, almost all of the residents believed that other members of their health care team have acted in an unethical or unprofessional way."	
Hlubocky et al. 2020	A Call to Action: Ethics Committee Roundtable Recommendations for Addressing Burnout and Moral Distress in Oncology	Commentary	NA	NA	"In this Call to Action article, we discuss causes of and interventions for burnout and moral distress in oncology, highlight existing interventions, and provide recommendations for addressing burnout and improving well-being at the individual and organizational levels to deliver ethical, quality cancer care."	NA	"As the previous discussion makes clear, burnout compromises clinician health and well-being, patient safety and quality of care, the economic strength of practices and institutions, and the future oncology workforce. Because the effects are so widespread, individual physicians, oncology practices and health care employers, professional societies such as ASCO, and other	"3 recommendations: 1. Broaden clinician education resources", 2. Establish Physician Well-Being and Burnout as Important Quality Metrics for Oncology Practices 3. Promote research"

							stakeholders (eg, Centers for Medicare and Medicaid Services, state medical boards, payers, regulators, and electronic health record vendors) all share responsibility for addressing the problem."	
Hossain 2020	Moral distress among healthcare providers and mistrust among patients during COVID-19 in Bangladesh	Perspective	NA	NA	"This article specifically discusses the importance of interpersonal relationships in driving change, using the framework of Responsiveness, while stating the need for complementary systematic change in order to rebuild trust in the Bangladeshi healthcare system."	NA	"Due to the scarcity of resources and systematic failures the Bangladeshi people "deeply mistrust the healthcare system". "The mistrust is further magnified as healthcare providers are hesitant to treat the patients because of the lack of proper protective gear. Physicians have a moral obligation to serve and treat patients; however, they have a moral obligation to protect	"In the context of Bangladesh, it is urgent that healthcare providers, the government, and healthcare systems embrace and include responsiveness as normative and expected best practices. This has five components: friendliness, respect, informing and guiding, trust-building, and optimizing benefit."

							their families. This dilemma places healthcare providers in situations where they experience moral distress."	
Howe 2017	How Should Physicians Respond When the Best Treatment for an Individual Patient Conflicts with Practice Guidelines about the Use of a Limited Resource?	Case study	NA	NA	"To offer an interpretation of physicians' moral distress in resource-scarce situations and ways to preserve physician-patient relationships"	NA	"The case presents a physician's ethical conflict, due to limited resources, between his obligations to meet the needs of a community and those of his patient. Elements of the decision-making process (and who should make the decision) are discussed, including the limitations of what ethical reasoning can offer and risks of arbitrary outcomes. Additionally, potential benefits to physicians and their patients of discussing these conflicts, including	"I argue that physicians' abilities to make "right" decisions in such situations are limited, and I suggest ways in which physicians can try to preserve their relationships with patients."

							reducing the physician's moral distress, are noted."	
Howe 2017	Fourteen Important Concepts Regarding Moral Distress	Commentary	NA	NA	"The article discusses the "reasons for moral distress among patients and HCPs, and advocates for the welcoming of expressions of moral distress from clinicians, patients and their families."	NA	NA	"I have addressed 14 points that we may want to consider when our patients or we ourselves feel moral distress. The end goal is to welcome and appreciate our patients and our colleagues who express their moral distress, rather than finding it threatening in any way."
Jacoba et al. 2016	Appropriateness of care and moral distress among neonatal intensive care unit staff: repeated measurements	Quantitative	10.5	NA	"To assess the immediate impact of perceived inappropriate patient care on nurses' and physicians' MD intensity, and explore a possible moderating effect of ethical climate."	"In a repeated measures design, after baseline assessment, each participant completed self-report questionnaires after five randomly selected shifts. Data were	"At baseline, overall MD was relatively low; in nurses, it was significantly higher than in physicians. Few morally distressing situations were reported in the repeated measurements, but distress could be intense in these	"Although infrequently perceived, overtreatment of patients caused considerable distress in nurses and physicians. Our unit introduced multidisciplinary medical ethical decision making 5 years ago, which may

						analysed with logistic and Tobit regression."	cases; nurses' and physicians' scores were comparable. Physicians were significantly more likely than nurses to disagree with their patients' level of care (p = 0·02). Still, perceived overtreatment, but not undertreatment, was significantly related to distress intensity in both professional groups; ethical climate did not moderate this effect. Substandard patient care due to lack of continuity, poor communication and unsafe levels of staffing were rated as more important causes of MD than perceived inappropriate care."	partly explain the low MD at baseline."
Jacobs et al. 2020	Moral Distress During COVID-19: Residents in	Commentary	NA	NA	"The objective of this paper is to identify the unique challenges that residents face,	NA	NA	"We are seeing sicker patients, facing longer work hours, and feeling the burden of

	Training Are at High Risk				specifically moral distress, as it plays out during the COVID-19 pandemic. Further we offer strategies that residency program leadership can implement to support residents within their training programs."			low staffing, all which have been linked to increasing moral distress. With more clinicians being trained to assist in the critical care settings for COVID-19 outbreaks, a large population of providers who have not previously seen such stark ethical challenges in their training may face moral distress. Education about moral distress and its consequences may strengthen residents' capacity to cope and seek support during the COVID-19 pandemic and throughout their residency. This training will hopefully mitigate the development of moral injury among this critical physician workforce."

Janvier et al. 2007	Moral distress in the neonatal intensive care unit: caregiver's experience	Quantitative	7	NA	"The aims of this study were to determine whether ethical confrontation is frequent for residents and nurses caring for extremely preterm infants and to determine factors associated with ethical confrontation such as age, sex, the fact of having children, experience, religion, center where one works, knowledge of neurological long-term outcome and opinions regarding acceptability of resuscitations at the margins of viability."	"Between July and October 2002, an anonymous questionnaire regarding opinions and knowledge related to neonatal resuscitation and neurological outcome at and below 28 weeks was distributed to groups of residents and nurses. All residents in pediatrics and obstetrics in the province of Quebec, Canada were surveyed. Four university centers in Quebec have a residency program in Obstetrics and Pediatrics: Quebec,	"Two hundred and seventy-nine caregivers participated (115 full time nurses and 164 residents). All the distributed questionnaires were completed. Frequent ethical confrontation was reported by 35% of the nurses and 19% of the residents. Among the nurses, moral distress differed significantly between work environments. Nurses working in an out-born NICU and obstetric nurses were more likely to overestimate CP prevalence (P<0.05). Nurses who overestimated CP rates had higher thresholds for resuscitation and were more likely to experience ethical	"In summary, we wished to investigate the ethical experiences of nurses and residents involved in neonatal care because ethical confrontations can affect the morale of the health-care team and interfere with the provision of high-quality care. Further studies will be required to find ways to equip trainees and health-care workers with the tools to examine these confrontations, to learn from these difficult situations and thus to profit from them."

						Sherbrooke, Montre´al (Universite´ de Montre´al and McGill University). Nurses of the McGill University Health Centre involved in perinatal and neonatal care were also questioned; the three groups being delivery room nurses, nurses working in a maternity hospital neonatal intensive care unit (NICU), NICU nurses working in a Children's hospital."	confrontations. Of the residents, 60% were pediatric and 40% obstetric. All groups of residents frequently overestimated the prevalence of CP, and knowledge differed significantly by residency program (P<0.05). The residents who overestimated CP rates had higher thresholds for resuscitation, had more incorrect answers regarding prematurity outcomes and were less likely to have ethical confrontations."	
Johnson-Coyle et al. 2016	Moral distress and burnout among cardiovascular	Quantitative	11	NA	"To describe and compare the prevalence and contributing factors to	"Web-based survey of ICU professionals (registered	"One hundred sixty-nine providers completed the sur-vey (response rate	"Moral distress and burnout are common in healthcare professionals in a

	surgery intensive care unit healthcare professionals: A prospective cross-sectional survey				moral distress and burnout among ICU professionals in a large quaternary cardiovascular surgery ICU (CVICU)."	nurses [RN]/nurse practitioners [NP]; registered respiratory therapists [RRT]; allied health [AH] and physicians [MD]) working in a 24-bed CVICU at the Mazankowski Alberta Heart Institute, between June 15-29, 2015. The survey captured sociodemographic data and integrated the Moral Distress Scale-Revised, the Maslach Burnout Inventory', and a validated job satisfaction questionnaire."	88%). The majority of respondents were aged 26-34 years old (45%), female (79%), married or common law (50%), full-time employed (78%) and had been working in the CVICU for >5 years (46%). Moral distress scores were highest among RN/NP (med [IQR] 80 [57-110]) and RRT (85 [61-104]) compared to AH (54 [39-66]) and physicians (66 [43-82], p=0.05). The highest-ranked sources of moral distress were related to controversies on end-of-life care ("Continue to participate in the care for a hopelessly ill person who is being sustained on a ventilator, when no one will make a	large academic cardiovascular surgery ICU, in particular among nurses and respiratory therapists. Both moral distress and burnout have a negative perception on job satisfaction. These findings will direct strategies to mitigate moral distress and burnout along with enhancing patient care and improving the workplace environment."

							decision to withdrawal support") and poor communication ("witness healthcare providers giving false hope' to a patient or family"). High, moderate and low levels of burnout syndrome were found in 64.0%, 22.7% and 13.3% of respondents with significantly greater levels among non-physician professionals (p<0.001). Job satisfaction was highest for physicians compared with other professionals (p<0.001). The item "the recognition you get for good work" was consistently rated as poor across all groups. Moral distress and burnout	

							scores were positively correlated (p<0. 001), whereas both were neg-atively correlated with job satisfaction (p<0.001 for both). This was primarily driven by RN/NP scores."	
Johnston et al. 2021	Assessing moral distress in trainees on a pediatric hematology-oncology rotation	Mixed methods	NA	NA	"1. Identify themes causing moral distress. 2. Create a moral space to discuss moral distress. 3. Develop interventions to mitigate moral distress."	"At the end of their hematology-oncology rotation, trainees were given a validated survey measuring components of moral distress, defined by Ann Hamric, by multiplying the frequency of a distressing situation by the intensity of distress. Each possible source yields a score of 0-16. A fellow, psychologist,	"A total of 26 residents have completed the survey. The most common, higher scoring themes were related to poor communication, documentation requirements, volume of patients, and lack of continuity. A hematology-oncology specific theme was the inability to discuss the prognosis with the patient/family. Themes identified in discussion included feeling inadequate	"We identified that many hematology-oncology residents experience components of moral distress, and that residents who have participated in sessions focused on discussing these experiences find having this time to reflect useful. Additionally, this process has informed targeted interventions to mitigate moral distress during this rotation. Future directions include assessing whether residents have more

						and trainees met for one hour to discuss moral distress and items identified in their surveys as causing high distress. Trainees were encouraged to reflect on their experiences openly after assuring confidentiality. Changes to the process were implemented over time based on initial results, as determined by scores on the measure and themes identified in sessions with trainees. “	due to lack of involvement with patients' significant events, such as new diagnosis discussions, and caring for actively dying children. Based on initial results, trainees were given a checklist at the start of the rotation to ensure participation in important discussions, and an additional survey was added assessing whether trainees found these sessions useful. Preliminary information indicates that the implemented checklist is helping residents feel emboldened to communicate more openly to obtain training experiences. Six trainees have completed the post-	moral distress on this rotation as compared to other rotations during their training, and how to best address any differences found.”

							intervention survey and each endorsed usefulness of the meeting.”	
Jones et al. 2020	Psychological impact of working in paediatric intensive care. A UK-wide prevalence study	Quantitative	10.5	NA	"To determine the prevalence of work-related psychological distress in staff working in UK paediatric intensive care units (PICU)."	"Online (Qualtrics) staff questionnaire, conducted April to May 2018. Staff working in 29 PICUs and 10 PICU transport services were invited to participate."	"The Moral Distress Scale- Revised (MDS-R) was used to look at moral distress, the abbreviated Maslach Burnout Inventory to examine the depersonalisation and emotional exhaustion domains of burnout, and the Trauma Screening Questionnaire (TSQ) to assess risk of post-traumatic stress disorder (PTSD). Results 435/1194 (36%) nurses, 48/270 (18%) physicians and 19/192 (10%) other staff scored above the study threshold for moral distress (90 on MDS-R) ($\chi 2$ test, $p<0.00001$).	"These results suggest that UK PICU staff are experiencing work-related distress. Further studies are needed to understand causation and to develop strategies for prevention and treatment."

							594/1194 (50%) nurses, 99/270 (37%) physicians and 86/192 (45%) other staff had high burnout scores ($\chi 2$ test, p=0.0004). 366/1194 (31%) nurses, 42/270 (16%) physicians and 21/192 (11%) other staff scored at risk for PTSD ($\chi 2$ test, p<0.00001). Junior nurses were at highest risk of moral distress and PTSD, and junior doctors of burnout. Larger unit size was associated with higher MDS-R, burnout and TSQ scores."	
Kapiriri 2015	Ethical challenges in clinical decision-making in the era of new technologies: Experiences from low	Perspecti ve	NA	NA	"To discuss the ethical (and other) challenges clinicians in Low-income countries (LIC)s face in this new technology era."	NA	"Patient related challenges included; inappropriate demand, ability to make informed decisions and balancing self-interest vs. public	-"explicit processes and criteria for allocating new technologies. In the shorter term there should be transparency in the decision making

	income countries						interest. Clinician related challenges included; the use of unfair criteria, lack of explicit criteria and processes, lack of evidence, potential for abuse, physicians' dual role, autonomy and moral distress. Most of these were directly influenced by the extreme lack of resources, and decisions made at the meso- macro and global levels with regards to research and development and investing in new technologies for LICs."	processes, involving explicit criteria and clear rationale for those criteria." - "Health Technology Assessment (HTA) committees/ institutions which should provide clear and explicit criteria to guide and support clinicians' decision making"
Knifed et al. 2010	Moral angst for surgical residents: a qualitative study	Qualitative	NA	18	"Such ethical matters have not been explored in the surgical literature, especially not from the perspective of the trainees themselves. The purpose of this study was to explore	"Grounded theory methodology was used. All University of Toronto surgical, otolaryngology, and obstetrics	"Five encompassing themes emerged: (1) residents prefer operating with another resident while the staff watches; (2) residents felt that patients were rarely	"Residents encounter ethical dilemmas leading to moral angst during their surgical training and need to feel safe to discuss these openly. Staff and residents should work together to

					ethical concerns and distress that surgical residents may encounter as a result of their being “on-the-job trainees.”	and gynecology residents were invited to participate. Twenty-eight face-to-face interviews were conducted. Interviews were transcribed and analyzed by 3 reviewers.”	well informed about their role; (3) residents develop good relationships with patients; (4) residents felt ethically obliged to disclose intraoperative errors; and (5) residents experience ethical distress in certain teaching circumstances.”	establish optimal communication and teaching situations.”
Ladin et al. 2018	Discussing Conservative Management With Older Patients With CKD: An Interview Study of Nephrologists	Qualitative	NA	22	"In this qualitative study, we examine how nephrologists decide whether to discuss CM with older patients, and identify triggers for CM discussion and the barriers and facilitators to discussion. We also explore nephrologists’ beliefs, experiences, and challenges in engaging older patients in discussions about CM."	"Semi-structured interviews with 35 nephrologists sampled based on gender, years in practice, practice type, and region. Thematic and narrative analysis of recorded and transcribed interviews."	"Among 35 semi-structured interviews with nephrologists from 18 practices, 37% described routinely discussing CM (“early adopters”). Five themes and related subthemes reflected issues that influence nephrologists’ decisions to discuss CM and their approaches to these discussions: struggling to define	"Our findings clarify how moral distress serves as a catalyst for CM discussion and highlight points of intervention and mechanisms potentially underlying low CM use in the United States."

							nephrologists' roles (determining treatment, instilling hope, improving patient symptoms), circumventing end-of-life conversations (contending with prognostic uncertainty, fearing emotional backlash, jeopardizing relationships, tailoring information), confronting institutional barriers (time constraints, care coordination, incentives for dialysis, discomfort with varied CM approaches), CM as "no care", and moral distress. Nephrologists' approaches to CM discussions were shaped by perceptions of their roles and by a common view of	

							CM as “no care”. Their willingness to pursue CM was influenced by provider-level and institutional-level barriers and experiences with older patients who regretted or had been harmed by dialysis (moral distress). Early adopters routinely discussed CM as a way of relieving moral distress, whereas others who were more selective in discussing CM experienced greater distress."	
Lamiani et al. 2017	When healthcare professionals cannot do the right thing: A systematic review of moral distress and its correlates	Qualitative	NA	NA	"This review describes the publication trend on moral distress and explores its relationships with other constructs."	"A bibliometric analysis revealed that since 1984, 239 articles were published, with an increase after 2011."	"Of the 239 articles, 17 empirical studies were systematically analyzed. Moral distress correlated with organizational environment (poor ethical climate and collaboration), professional	"Findings revealed that moral distress negatively affects clinicians’ wellbeing and job retention. Further studies should investigate protective psychological factors to develop preventive interventions."

							attitudes (low work satisfaction and engagement), and psychological characteristics (low psychological empowerment and autonomy)."	
Lamiani et al. 2017	Value congruence and depressive symptoms among critical care clinicians: The mediating role of moral distress	Quantitative	11.5	NA	"This study aimed to test the mediating role of moral distress in the relationship between value congruence and job control, on the one hand, and depression, on the other hand."	"A cross-sectional study involving physicians, nurses, and residents working in 7 intensive care units in the north of Italy was conducted. Clinicians were administered in the Italian Moral Distress Scale—Revised, the value and control subscales of the Areas of Worklife Scale, and the Beck Depression Inventory II.	"Analysis on 170 questionnaires (response rate 72%) found no relations between job control and moral distress. A total indirect effect of value congruence on depression through moral distress (β = −.12; p = .02) was found."	"Moral distress contributes to the development of depressive symptoms among critical care clinicians who perceive a value incongruence with their organization and therefore should be addressed."

						Structural equation modeling was used to test the mediation model."		
Lamiani et al. 2017	Measuring moral distress among critical care clinicians: Validation and psychometric properties of the Italian Moral Distress Scale-Revised (MDS-R)	Quantitative	11.5	NA	"Moral distress is a common experience among critical care professionals leading to frustration, withdrawal from patient care and job abandonment. Most of the studies on moral distress have used the Moral Distress Scale (MDS) or its revised version (MDS-R). However, these scales have never been validated through factor analysis. This paper aims to explore the factorial structure of the MDS-R and develop a valid and reliable scale through factor analysis."	"The MDS-R was translated into Italian and administered along with a measure of depression (BDI-II) to establish convergent validity. Exploratory factor analysis was conducted to explore the MDS-R factorial structure. Items with low (≤.350) or multiple saturations were removed. The resulting model was tested through confirmatory factor analysis."	"The Italian MDS-R evinces good reliability (α=.81) and moderately correlates with BDI-II (r=.293; p=.000). No significant differences were found in the moral distress total score between physicians and nurses. However, nurses scored higher on Futile care than physicians (t=2.051; p=.042), while physicians scored higher on Deceptive communication than nurses (t=3.617; p=.000). Moral distress was higher for those clinicians considering to give	"The Italian MDS-R is a valid and reliable instrument to assess moral distress among critical care clinicians and develop tailored interventions addressing its different components. Further research could test the generalizability of its factorial structure in other cultures."

							up their position (t=2.778; p=.006)."	
Lamiani et al. 2018	Clinicians' moral distress and family satisfaction in the intensive care unit	Quantitative	11.5	NA	"This study explored the relationship between clinicians' moral distress and family satisfaction with care in five intensive care units in Italy."	"A total of 122 clinicians (45 physicians and 77 nurses) and 59 family members completed the Italian Moral Distress Scale-Revised and the Family Satisfaction in the ICU questionnaire, respectively."	"Clinicians' moral distress inversely correlated with family satisfaction related to the inclusion in the decision-making process. Specifically, physicians' moral distress inversely correlated with satisfaction regarding the respect shown toward the patient. Nurses' moral distress inversely correlated with satisfaction regarding breathlessness and agitation management, provision of emotional support, understanding of information, and inclusion in the decision-making process."	"These findings suggest that moral distress, as a form of distress pertaining to the professional and ethical dimensions of the clinical work, may be an indicator of low-quality care and therefore should be addressed. Educational and supportive initiatives such as ethical rounds, interdisciplinary case discussion, and clinical supervisions could be offered for clinicians to promote moral resiliency and improve the quality of care."

Lamiani et al. 2020	Caring for Critically Ill Patients: Clinicians' Empathy Promotes Job Satisfaction and Does Not Predict Moral Distress	Quantitative	11	NA	"This study aims to assess whether the level of empathy of clinicians working in critical care settings may expose them to moral distress, poor job satisfaction, and intention to quit their job."	"Italian clinicians who attended the 2016 "Smart Meeting Anesthesia Resuscitation in Intensive Care" completed the Empathy Quotient questionnaire, the Moral Distress Scale-Revised, and two questions assessing job satisfaction and intention to quit the job. Multiple linear and logistic regressions were performed to determine if clinicians' empathy influences moral distress, job satisfaction, and intention to quit. Age, gender,	"Out of 927 questionnaires distributed, 216 were returned (23% response rate) and 210 were used in the analyses. Respondents were 56% physicians, 24% nurses, and 20% residents. Over half of the clinicians (58%) were female. Empathy resulted the only significant predictor of job satisfaction ($\beta = 0.193$; $p < 0.05$). None of the variables included in the model predicted moral distress."	"Empathy determined neither moral distress nor intention to quit. Findings suggest that empathy is not a risk factor for critical care clinicians in developing moral distress and the intention to quit their job. On the contrary, empathy was found to enhance clinicians' job satisfaction."

						and profession were used as control variables."		
Larson et al. 2017	Moral Distress in PICU and Neonatal ICU Practitioners: A Cross-Sectional Evaluation	Quantitative	10.5	NA	"To measure the level of moral distress in PICU and neonatal ICU health practitioners, and to describe the relationship of moral distress with demographic factors, burnout, and uncertainty."	"A 41-item questionnaire examining moral distress, burnout, and uncertainty."	"The main outcome was moral distress measured with the Revised Moral Distress Scale. Secondary outcomes were frequency and intensity Revised Moral Distress Scale subscores, burnout measured with the Maslach Burnout Inventory depersonalization subscale, and uncertainty measured with questions adapted from Mishel's Parent Percep- tion of Uncertainty Scale. Linear regression models were used to examine associations between participant characteristics and	"In this single-center, cross-sectional study, we found that moral distress is present in PICU and neonatal ICU health practitioners and is correlated with burnout, uncertainty, and feeling unsupported."

							the measures of moral distress, burnout, and uncertainty. Two-hundred six analyzable surveys were returned. The median Revised Moral Distress Scale score was 96.5 (interquartile range, 69–133), and 58% of respondents reported significant work-related moral dis- tress. Revised Moral Distress Scale items involving end-of-life care and communication scored highest. Moral distress was positively associated with burnout (r2 = 0.27; p < 0.001) and uncertainty (r2 = 0.04; p = 0.008) and inversely associated with perceived hospital supportiveness (r2 = 0.18; p < 0.001).	

							Nurses reported higher moral distress intensity than physicians (Revised Moral Dis- tress Scale intensity subscores: 57.3 vs 44.7; p = 0.002). In nurses only, moral distress was positively associated with increasing years of ICU experience (p = 0.02) and uncertainty about whether their care was of benefit (r2 = 0.11; p < 0.001) and inversely associated with uncertainty about a child's prognosis (r2 = 0.03; p = 0.03)."	
Lievrouw et al. 2015	Coping With Moral Distress in Oncology Practice: Nurse and Physician Strategies	Qualitative	NA	22	"To explore variations in coping with moral distress among physicians and nurses in a university hospital oncology setting."	"17 doctors and 18 nurses with varying experience levels, working in three different oncology hospital	"Moral distress lingered if it was accompanied by emotional distress. Four dominant ways of coping (thoroughness, autonomy,	"Moral distress is a challenging phenomenon in oncology. However, when managed well, it can lead to more introspection and team reflection,

						settings" were interviewed "based on the critical incident technique. Analyses were performed using thematic analysis."	compromise, and intuition) emerged, which could be mapped on two perpendicular continuous axes: a tendency to internalize or externalize moral distress, and a tendency to focus on rational or experiential elements. Each of the ways of coping had strengths and weaknesses. Doctors reported a mainly rational coping style, whereas nurses tended to focus on feelings and experiences. However, people appeared to change their ways of handling moral distress depending on personal or work-related experiences and perceived team culture. Prejudices	resulting in a better interpersonal understanding."

							were expressed about other professions."	
Litleskare et al. 2020	Refusals to perform ritual circumcision: a qualitative study of doctors' professional and ethical reasoning	Qualitative	NA	19	"Ritual circumcision of infant boys is controversial in Norway, as in many other countries. The procedure became a part of Norwegian public health services in 2015. A new law opened for conscientious objection to the procedure. We have studied physicians' refusals to perform ritual circumcision as an issue of professional ethics."	"Qualitative interview study with 10 urologists who refused to perform ritual circumcision from six Norwegian public hospitals. Interviews were recorded and transcribed, then analysed with systematic text condensation, a qualitative analysis framework."	"The physicians are unanimous in grounding their opposition to the procedure in professional standards and norms, based on fundamental tenets of professional ethics. While there is homogeneity in the group when it comes to this reasoning, there are significant variations as to how deeply the matter touches the urologists on a personal level. About half of them connect their stance to their personal integrity, and state that performing the procedure would go against their conscience and lead	"It is argued that professional moral norms sometimes might become more or less 'integrated' in the professional's core moral values and moral identity. If this is the case, then the distinction between conscience-based and professional refusals to certain healthcare services cannot be drawn as sharply as it has been."

							to pangs of conscience.”	
Luyckx et al. 2017	Ethical Challenges in the Provision of Dialysis in Resource-Constrained Environments	Descriptive	NA	NA	"In this article, we present ethical challenges faced by patients, families, clinicians, and policy makers where dialysis is not universally accessible and discuss the potential ethical consequences of various dialysis allocation strategies."	NA	NA	"Finally, we suggest an ethical framework for use in policy development for priority setting of dialysis care. The accountability for reasonableness framework is proposed as a procedurally fair decision-making, priority-setting process."
Mair et al. 2020	Burnout, Professional Quality of Life, and Workplace Stressors in Intensivists in Australia and New Zealand	Quantitative	NA	NA	"To investigate (1) the degree and prevalence of burnout in intensivists working in Australia and New Zealand; and (2) workplace stressors associated with an increased risk of self-reported burnout."	"Australian and New Zealand (ANZ) intensiv- ists were invited to participate in an online survey. The Professional Quality of Life scale, version 5 (ProQOL-5) was used to measure (1) compassion satisfaction, (2) burnout and (3)	"Very few participants (0.8%) demonstrated high scores (>75th centile) for burnout and 70.9% scored in the average range for burnout. 98.1% participants scored in the average to high range for compassion satisfaction. No association was found between	"Known socio-organisational factors asso- ciated with work-related stress and burnout were common in ANZ intensivists. Despite this, fewer ANZ intensivists experienced a high degree of burnout than has previously been estimated. Identified themes may

						secondary traumatic stress. Several a priori defined socio-organisational factors designed to assess (1) interpersonal interactions and workplace rela-tionships, (2) leadership and governance, and (3) self-determination and control, all of which have previously been associated with workplace stress and burnout, were also measured. Finally, we conducted thematic analysis on intensivists' perspectives on workplace stressors."	gender, age, or years of practice with level of burnout or compassion satisfaction. Seven major themes for intensivists' work stressors were: (1) interpersonal interactions and workplace relationships; (2) workload and its impact; (3) resources and capacity; (4) health systems leadership and bureaucracy; (5) end-of-life issues and moral distress; (6) clinical management; and (7) job security and future uncertainty."	form the basis of future interventions."

Martin 2019	An ethics refresher for doctors in moral distress: theory and practice	Commentary	NA	NA	"This article describes a gap between ethics-in-practice and ethics-in-theory; clinicians are often better at knowing what to do than articulating why to do it. This gap can go unnoticed until moments of moral distress. To reduce this gap, this article presents the four principles approach to medical ethics as a helpful framework when implemented carefully."	NA	"The four principles approach provides a preliminary framework to assist clinicians' ethical deliberation. It provides a means of conceptualisation for the clinician in a conflict (decision), a means of communication for the clinician in a rush (discussion), and a means of self-diagnosis for the clinician in perplexity (distress)."	"Through its careful implementation, the gap between ethics-in-practice and ethics-in-theory can be narrowed and clinicians can be helped through times of moral distress."
McDougall 2009	Combating junior doctors' "4am logic": a challenge for medical ethics education	Commentary	NA	NA	"This paper uses an intern's story of an ethically challenging situation to argue that this emphasis is problematic in terms of ensuring students' ethical practice as junior doctors."	NA	"The story suggests that it is aligning their actions with the values that they reflectively embrace that can present difficulties for junior doctors working in the pressures of the hospital environment, rather than reasoning to an	"I argue that junior doctors need skills for implementing their ethical decisions and that these ought to form a central component of undergraduate medical ethics education."

							ethically appropriate action."	
McLaughlin et al. 2019	Moral Distress in Internal Medicine Residents	Quantitative	7	NA	"This is a mixed methods prospective observational cohort study that aims to enroll 90 internal medicine (IM) residents on a rolling basis from one IM residency program."	"Data is being collected by a series of 3 surveys over 1 year, using the previously validated Moral Distress Scale, to evaluate frequency and intensity of distress associated with specific situations experienced or witnessed by residents during training. This initial analysis, bivariate and multivariate regression of quantitative data from the first time point (survey #1), investigated associations between moral	"Mean and median moral distress scores were: 66.8 (SD 31.0) and 61 (range 16-132). In multivariate linear regression "PC" residents had scores 31 pt. higher compared to "Categorical" residents. Male residents had scores 25 pt lower than female residents, and PGY year conferred an incremental score increase of 11 pt per year. Themes regarding causes of moral distress included: lack of resources, situations when patient care is dictated by cost-saving measures, and aggressive futile care. Coping mechanisms	"In this preliminary analysis, residents in the PC track have higher average moral distress scores. It is unclear whether residents prone to more moral distress self select into this track or whether distress is related to differences in training between PC and categorical tracks. Additionally, more senior residents had average higher scores. This supports the theory of residual moral distress; an increasing amount of moral distress is experienced as a provider witnesses/experiences distressing events over time. Most coping strat- egies involve social

						distress scores and demographic, training-specific, and intrinsic personal factors of participants. Analysis of qualitative open-ended questions further explored causes of moral distress and as well as coping mechanisms employed by residents."	included: debriefing with team members or others outside of work, active individual reflection, exercise/yoga/meditation, participating in activities and social events outside of medicine, reflective writing/journaling, and suppression and/or distraction."	connection and reflection."
McLaughlin et al. 2020	Moral distress among physician trainees: contexts, conflicts, and coping mechanisms in the training environment	Qualitative	NA	NA	"There is a dearth of literature focusing on moral distress among physician trainees, particularly as regards the clinical training environment. This study explores the phenomenon of moral distress among internal medicine trainees, with an emphasis on the contexts of clinical	"We report qualitative data from a mixed methods prospective observational cohort study of internal medicine (IM) residents and associated faculty at a large, urban, academic	"Experience with moral distress was universal among participants. Trainees identified several drivers of moral distress that were unique to their professional development as clinicians and their role as trainees/ learners within clinical teams,	"Physician trainees experience considerable moral distress in the context of their professional development, with unique drivers of moral distress identified in the training and clinical team context. This improved understanding of factors unique to the

					training and professional role development."	medical institution. Five focus groups were conducted with 15 internal medicine residents (PGY1- 3), between January and October 2019. In each focus group trained facilitators conducted semi-structured interviews using prompts which focused on definitions of, experiences with, and consequences of moral distress. Transcripts were independently coded by investigators, and analyzed by major themes and sub-themes. Discrepant	including: feelings of inadequacy in clinical or procedural skills, being asked to perform duties outside of their scope of practice, discomfort with the idea of 'practicing' skills on patients, poor team communication, disagreements with senior team members, experiences of disempowerment as junior team members, and overwhelming or inappropriate administrative or non-clinical burdens. Participants also identified unique, place-based moral distress across different clinical environments, including intensive care units, wards,	trainees' experience has implications for tailoring educational experiences as professional development activities, as well as potential wellness and resilience-building among physician trainees. It may also inform the training of physician leaders and seniors clinicians who engage with trainees in learning and clinical environments."

						themes and codes were reviewed by the full research team to establish clarity and consensus. Data were analyzed using Dedoose® software."	and outpatient environments, as well as between private, public, and government-run hospital facilities."	
Meeker et al. 2018	Transition to Comfort-Focused Care: A Metasynthesis of Patient, Family, and Provider Perspectives	Qualitative	NA	NA	"Transitioning to comfort-focused care is inherently difficult with fear, loss, and a sense of powerlessness common. Failure to assist patient and family with a timely transition increases suffering, truncates the opportunity for meaningful life closure, and subjects patients to needless interventions, draining healthcare resources while adversely impacting patient and family outcomes. The purpose of this study	"Study Identification. Literature was sourced from systematic searches of Medline, CINAHL, and PsycInfo databases. Inclusion criteria were: (a) published report of a primary study using qualitative methods, (b) addresses some aspect of transition process to comfort-focused	"Included were 57 reports of 51 studies. The transition process of moving toward a shared view was dependent on sub-processes of (1) engaging and establishing connection and (2) sharing decision-making. Connection was influenced by ethical behavior and emotional support, while decision-making was reliant on information and involvement. Achieving a shared view and moving to comfort-focused	"The findings provide a framework to guide clinicians in reducing conflict and facilitating a patient's transition to comfort-focused care when appropriate and congruent with patient goals as well as directions for needed research."

					was to synthesize available qualitative evidence to describe and explain the process of transition from life-prolonging to comfort-focused care as reported by patients, family members, healthcare providers."	care, (c) participants were patients, family members, or healthcare providers, or any combination, (d) published in English from any country, and (e) all participants were adults. No date limitations were placed. The Joanna Briggs tool was used for quality appraisal. Data Extraction and Synthesis. Information was abstracted and placed in a matrix. Data was first synthesized by participant group and then integrated across groups."	care led to preparation for dying and emphasis on relationships. Inability to achieve a shared view led to conflict and moral distress. A biomedical vs. person-centered context strongly affected the transition process"	

Miljeteig et al. 2019	Clinical ethics dilemmas in a low-income setting - a national survey among physicians in Ethiopia	Mixed Methods	11	12	"Ethical dilemmas are part of medicine, but the type of challenges, the frequency of their occurrence and the nuances in the difficulties have not been systematically studied in low-income settings. The objective of this paper was to map out the ethical dilemmas from the perspective of Ethiopian physicians working in public hospitals."	"A national survey of physicians from 49 public hospitals using stratified, multi-stage sampling was conducted in six of the 11 regions in Ethiopia. Descriptive statistics were used and the responses to the open-ended question “If you have experienced any ethical dilemma, can you please describe a dilemma you have encountered in your own words?” were analyzed using a template analysis process."	"A total of 587 physicians responded (response rate 91,7%), and 565 met the inclusion criteria. Twelve of 24 specified ethically challenging situations were reported to be experienced often or sometimes by more than 50% of the physicians. The most frequently reported challenge concerned resource distribution: 93% agreed that they often or sometimes had to make difficult choices due to resource limitation, and 83% often or sometimes encountered difficulties because patients were unable to pay for the preferred course of treatment. Other frequently reported	"Ethiopian physicians report ethical challenges related more to bedside rationing and fairness concerns than futility discussions and conflicts about autonomy as described in studies from high-income countries. In addition to the high report of experienced challenges, gravity of the dilemmas that are present in their narratives are striking. Recognition of the everyday experiences of physicians in low-income settings should prompt the development of ethics teaching and support mechanisms, discussion of ethical guidelines as well as increase our focus on how to improve the grave resource

							difficulties were doubts about doing good or harming the patient, relating to conflicting views, concern for family welfare, disclosure issues and caring for patients not able to consent. Few reported dilemmas related to end-of-life issues. The 200 responses to the open-ended question mirrored the quantitative results."	scarcity they describe."
Mills and Cortezzo 2020	Moral Distress in the Neonatal Intensive Care Unit: What Is It, Why It Happens, and How We Can Address It	Qualitative	NA	NA	"The purpose of this review is to describe moral distress and the situations that give rise to it in the NICU, ways in which various members of the medical team experience it, how it impacts care delivery, and approaches to address it."	NA	NA	"The multitude of circumstances that can lead to moral distress require a thoughtful and tailored approach to patient care. Ethics rounds, debriefing after deaths, codes, or other challenging situations, and exceptional communication among team members and with caregivers

								are the cornerstones of minimizing the negative impact of moral distress while leveraging its role in progress. Simulation or case-based discussion can provoke thought and acknowledgment of one's own feelings in various situations so that providers feel confident in their approach to care. In addition, not delaying difficult conversations with parents can minimize the trauma associated with aggressive medical interventions or end-of-life care and will encourage open, deliberate communication. Most importantly, perhaps, is the recognition of moral distress as an entity, its impact on care provided, and helping staff identify

								its presence. By acknowledging the influence and implications of moral distress, providers are better equipped to minimize the negative effects and provide safer, more resilient care. Utilization of behavioral medicine resources, team discussions, mentorship and buddy systems for emotional and moral support can encourage self-awareness and a focus on addressing moral distress. Fostering a culture of openness, ethical sincerity and support for those who are struggling can reduce consequences such as burnout and job dissatisfaction. Communication with team members can offer insight in to other perspectives and guide future actions.

								Guidance from seasoned mentors and reassurance from colleagues regarding the normalcy of moral distress and advice for managing it provides the tools for personal and professional growth."
Morris et al. 2020	Burnout in psychosocial oncology clinicians: A systematic review	Quantitative	NA	NA	"The aim of this systematic review was to summarize what is known about the prevalence and severity of burnout in psychosocial clinicians who work in oncology settings and the factors that are believed to contribute or protect against it."	"Articles on burnout (including compassion fatigue and secondary trauma) in psychosocial oncology clinicians were identified by searching PubMed/MEDLINE, EMBASE, PsycINFO, the Cumulative Index to Nursing and Allied Health Literature, and the Web of	"Thirty-eight articles were reviewed at the full-text level, and of those, nine met study inclusion criteria. All were published between 2004 and 2018 and included data from 678 psychosocial clinicians. Quality assessment revealed relatively low risk of bias and high methodological quality. Study composition and sample size varied greatly, and the majority of clinicians were aged between 40 and 59	"This systematic review suggests that psychosocial clinicians are not at increased risk of burnout compared with other health care professionals working in oncology or in mental health. Although the data are quite limited, several factors appear to be associated with less burnout in psychosocial clinicians, including exposure to patient recovery, discussing traumas, less moral distress, and finding meaning in their

						Science Core Collection."	years. Across studies, 10 different measures were used to assess burnout, secondary traumatic stress, and compassion fatigue, in addition to factors that might impact burnout, including work engagement, meaning, and moral distress. When compared with other medical professionals, psychosocial oncology clinicians endorsed lower levels of burnout."	work. More research using standardized measures of burnout with larger samples of clinicians is needed to examine both prevalence rates and how the experience of burnout changes over time. By virtue of their training, psychosocial clinicians are well placed to support each other and their nursing and medical colleagues."
Moskop et al. 2018	Another Look at the Persistent Moral Problem of Emergency Department Crowding	Commentary	NA	NA	"This article revisits the persistent problem of crowding in US hospital emergency departments (EDs)."	NA	NA	"The article concludes that ED crowding remains a morally significant problem and calls on emergency physicians, ED and hospital leaders, emergency medicine professional associations, and policymakers to

								collaborate on solutions."
Nejadsarvari et al. 2015	Relationship of Moral Sensitivity and Distress Among Physicians	Quantitative	12	NA	"In this survey, we evaluated moral sensitivity and moral distress among physicians and the relationship of these ethical factors on them. Hence, we assessed y relationship between moral sensitivity and moral distress in physicians will facilitate their sound management so as to provide high-quality and safe health services. Moreover it will confirm proposed theories regarding this subject."	"This cross-sectional descriptive-analytic study aimed at investigating the relationship between moral sensitivity and moral distress among 321 specialist physicians working in hospitals aðliated to Tehran Medical Universities in Tehran. The samples were selected through two-stage random cluster sampling method. A three-partite questionnaire comprising of demographic characteristics,	"There was a negative significant relationship between moral sensitivity and moral distress frequency; there was a positive significant relationship between moral sensitivity and moral distress intensity. Participating in medical ethics courses increased moral sensitivity and decreased the frequency of moral distress."	"Participating in medical ethics courses increased moral sensitivity and decreased the frequency of moral distress."

						moral distress, and moral sensitivity was used for collecting data which then were analyzed using SPSS-20."		
Neo et al. 2016	Preliminary data from studying moral distress amongst trainees in a residency programme	Quantitative	NA	NA	"Moral distress is the mental and emotional pain from participating in perceived moral wrongdoings. Residents are particularly vulnerable owing to relative inexperience and position in the professional hierarchy."	"Residents and senior residents were surveyed via anonymous, online questionnaires. Subjects scored frequency and intensity of distress using the Moral Distress Scale-Revised (MDS-R). Perceived efficacy in coping with moral distress was measured using the General Self Efficacy (GSE) scale. Information including	"Of 140 respondents, 54.3% were female, and 35% were senior residents. Mean MDS-R scores (± SD) was low at 81.7 ± 44.9. However, >20% of subjects experienced severe distress in 13/22 scenarios of the MDS-R. Of these, >20% of subjects encountered 8 scenarios sometimes too very frequently. They pertain to: 1) futile interventions; 2) collusion; 3) inappropriate treatment for fear of litigations; 4) poor	"A subpopulation of trainee experiences exceedingly higher moral distress across an array of clinical encounters, but fails to perceive a deficit in coping. Further qualitative interviews will explore predictors of distress and deficiencies in current bioethics curriculum."

						sociodemographics, year of residency, academic qualifications and duration of clinical practice were collected. Subjects with MDS-R within the top and bottom quartiles were compared, to identify predisposing factors."	communication, and 5) inadequate healthcare resources. Comparing the highest and lowest quartiles of MDS-R scores, age 26-30 is significantly associated with greater distress (OR 4.36, P <0.05). There were no differences by demographics, religion, duration of practice, stage of residency and previous ethical training. Mean GSE scores (28.74 ± 4.08 vs 28.75 ± 3.43) were near-identical."	
Neumann et al. 2018	Burnout, Moral Distress, Work–Life Balance, and Career Satisfaction among Hematopoietic Cell Transplantation Professionals	Quantitative	11.5	NA	"A projected shortage of hematopoietic cell transplantation (HCT) health professionals was identified as a major issue during the National Marrow Donor Program/Be The Match System Capacity Initiative.	"A cross-sectional, 90-item, web-based survey was administered to advanced practice providers, nurses, physicians,	"Of 5759 HCT providers who received an individualized invitation to participate, 914 (16%) responded; 627 additional participants responded to an	"These results suggest specific areas to address in the work environment for HCT health professionals, especially the need for relief of moral distress and a greater degree of personal time. As the creation

					Work-related distress and work–life balance were noted to be potential barriers to recruitment/retention. This study examined these barriers and their association with career satisfaction across HCT disciplines."	pharmacists, and social workers in 2015. Participants were recruited from membership lists of 6 professional groups. Burnout (measured with the Maslach Burnout Inventory subscales of emotional exhaustion and depersonalizatio n) and moral distress (measured by Moral Distress Scale—Revised) were examined to identify work-related distress. Additional questions addressed demographics, work–life balance, and	open link survey. Significant differences in demographic and practice characteristics existed across disciplines ($P < 0.05$). The prevalence of burnout differed across disciplines ($P < 0.05$) with an overall prevalence of 40%. Over one-half of pharmacists had burnout, whereas social workers had the lowest prevalence at less than one-third. Moral distress scores ranged from 0 to 336 and varied by discipline ($P < 0.05$); pharmacists had the highest mean score (62.9 ± 34.8) and social workers the lowest (42.7 ± 24.4). In multivariate and	of healthy work environments is increasingly emphasized to improve quality care and decrease costs, these findings should be used by HCT leadership to develop interventions that mitigate work-related distress and in turn foster recruitment and retention of HCT providers."

						career satisfaction."	univariate analyses, variables contributing to burnout varied by discipline; however, moral distress was a significant contributing factor for all providers. Those with burnout were more likely to report inadequate work–life balance and a low level of career satisfaction; however, overall there was a high level of career satisfaction across disciplines. Burnout, moral distress, and inadequate work–life balance existed at a variable rate in all HCT disciplines, yet career satisfaction was high."	
Oliver 2018	David Oliver: Moral distress in hospital doctors	Perspecti ve	NA	NA	Perspective article on moral distress on physicians and its effects.	NA	NA	"Jocelyn Cornwell cited as key factors in improving working conditions: shared

								values and mutual support in teams; managers being willing to talk openly and honestly about pressure (and finding ways to mitigate it); and low tolerance for poor behaviour. She also emphasised the behaviour of senior clinicians and managers—in role modelling, valuing, and engaging clinical teams—as being crucial to frontline staff. Maybe the starting point in handling moral distress in doctors and other health practitioners is to speak its name rather than play down its existence.”
Pergert et al. 2018	Moral distress in paediatric oncology: Contributing factors and	Quantitative	11	NA	"To explore healthcare professionals’ experiences of situations that generate moral	"In this national study, data collection was conducted using the Swedish Moral Distress	"The two situations with the highest moral distress scores concerned lack of competence and continuity of	"The two most morally distressing situations, lack of competence and continuity, are both organisational in

	group differences				distress in Swedish paediatric oncology."	Scale-Revised. The data analysis included descriptive statistics and non-parametric analysis of differences between groups."	personnel. All professional groups reported high levels of disturbance. Nurses rated significantly higher frequencies and higher total Moral Distress Scale scores compared to medical doctors and nursing assistants." "Lack of competence and continuity, as the two most morally distressing situations, confirms the findings of studies from other countries, where inadequate staffing was reported as being among the top five morally distressing situations. The levels of total Moral Distress Scale scores were more similar to those reported in intensive care units	nature. Thus, clinical ethics support services need to be combined with organisational improvements in order to reduce moral distress, thereby maintaining job satisfaction, preventing a high turnover of staff and ensuring the quality of care."

							than in other paediatric care settings."	
Pololi et al. 2019	Us, Too. Sexual Harassment Within Academic Medicine in the United States	Quantitative	7.5	NA	"We report on the extent of sexual harassment among residents and examine its relationship to specialty and program year and effects."	"Using the C–Change Resident Survey, we surveyed residents in 34 internal medicine, pediatrics, and general surgery programs in 14 academic medical centers (AMCs). A total of 1708 residents completed the survey (70% response-rate); 51% (n = 879) were women. Respondents reported unwanted sexual comments, attention, or advances by a superior or colleagues	"Rates of sexual harassment reported by women differed across the 34 programs, with an interquartile range of 0%-11%. Residents in pediatrics had the lowest frequencies of sexual harassment (mean 2%, 95% confidence interval [CI] 0%, 4%). Residents in internal medicine had higher rates of sexual harassment (mean 7%, 95% CI 1%, 25%). Residents in surgery had the highest rates (mean 12%, 95% CI 2%, 33%). Sexual harassment was associated with lower levels of vitality and higher ethical or moral	"Sexual harassment is more common for women residents in Internal Medicine and Surgery programs. The adverse effects of sexual harassment on female residents detracts from an institution's professional workforce."

						within the last 2 years. Measures of vitality and ethical or moral distress were included in the surveys."	distress (both, P b0.05)."	
Prentice & Gillam 2018	Can the Ethical Best Practice of Shared Decision-Making lead to Moral Distress?	Commentary	NA	NA	"This paper will examine how the application of shared decision-making may contribute to the experience of moral distress for physicians and why such distress may go under-recognized. Appreciation of these dynamics may assist in cross-discipline sensitivity, enabling more constructive dialogue and collaboration."	NA	"This paper will argue that physicians can and indeed feel constrained in a way that causes them moral distress, and that the professional expectation to undertake shared decision-making is a key factor in this. Though shared decision-making is only one of many types of constraints physicians may feel it is a useful place to begin a dialogue about physician moral distress."	"While societal expectations of physicians' roles may change, the physician–patient relationship is likely to always remain central to medical professionalism. Recognizing and addressing the impact of this relationship on moral distress within the medical profession may go some way to improving ethical climate and ultimately patient care."
Prentice et al. 2016	Moral distress within neonatal and paediatric	Qualitative	NA	NA	"To review the literature on moral distress experienced	"Pubmed, EBSCO (Academic	"13 studies on moral distress published between January	"Moral distress affects the care of patients in the NICU

	intensive care units: a systematic review				by nursing and medical professionals within neonatal intensive care units (NICUs) and paediatric intensive care units (PICUs).”	Search Complete, CINAHL and Medline) and Scopus were searched using the terms neonat, infant, pediatric, prematur or preterm AND (moral distress OR moral responsibility OR moral dilemma OR conscience OR ethical confrontation) AND intensive care.”	1985 and March 2015 met our inclusion criteria. Fewer than half of those studies (6) were multidisciplinary, with a predominance of nursing staff responses across all studies. The most common themes identified were overly ‘burdensome’ and disproportionate use of technology perceived not to be in a patient’s best interest, and powerlessness to act. Concepts of moral distress are expressed differently within nursing and medical literature. In nursing literature, nurses are often portrayed as victims, with physicians seen as the perpetrators instigating	and PICU. Empirical data on multidisciplinary populations remain sparse, with inconsistent definitions and predominantly small sample sizes limiting generalisability of studies. Longitudinal data reflecting the views of all stakeholders, including parents, are required.”

							‘aggressive care’. Within medical literature moral distress is described in terms of dilemmas or ethical confrontations.”	
Prentice et al. 2020	How should neonatal clinicians act in the presence of moral distress?	Commentary	NA	NA	Commentary based on a case of "Hannah was born at 23+1 weeks. At 2 weeks of age, Hannah developed severe necrotising enterocolitis requiring extensive resection of her small bowel."	NA	NA	"Moral distress is not necessarily an institutional failing. Rather, it may arise from personal values and professional obligations to respect parents as decision-makers for their child. Sometimes, action may be limited to finding meaning in our duty to care for patients and families, and to support our colleagues, despite differences of opinions. Sometimes, it may even mean accepting some degree of moral distress in order to uphold one’s professional duty to ongoing care

								provision and the practice of shared decision-making."
Pye 2013	Exploring moral distress in pediatric oncology; a sample of registered practitioners	Qualitative	NA	19	"The aim of this research was to explore perceptions of doctors and nurses working in an English regional pediatric oncology unit, regarding their lived experiences and feelings relating to the concept of moral distress. This was undertaken to illuminate the understanding of team dynamics and the impact that the causes and repercussions of moral distress may have on that team."	"The qualitative methodology was influenced by the Heideggarian phenomenological approach and data analysis was undertaken using Colaizzi's (1978) phenomenological method for protocol analysis."	"Six main themes were identified expressing participants' experiences of morally distressing situations, with three warranting in depth exploration: "the importance of the decision-making processes," "conflict over right to treatment and withholding treatment," and "communication within the team.""	"Moral distress does occur within pediatric oncology clinical settings and it has unavoidable triggers including emotional responses to difficult scenarios. The implications of this small study show benefits in sharing the decision-making process, thus enabling staff to recognize triggers more efficiently in clinical practice, enhancing communication through training and further research, collaborative education, de-briefing, and team meetings."
Redmann et al. 2016	Moral distress in pediatric otolaryngology: A pilot study	Quantitative	13	NA	"1. Determine the prevalence of moral distress for pediatric otolaryngologists at a	"Moral distress is defined as "when one knows the right	"Response rate was 89% (16/18). Overall MDS-R score was 40 (range	"Pediatric Otolaryngologists at our institution have lower degrees of

					tertiary medical center. 2. Evaluate the impact of demographic variables on moral distress levels."	thing to do, but institutional constraints make it nearly impossible to pursue the right course of action". The Moral Distress Survey-Revised (MDS-R) is a validated 21-question survey measuring moral distress in pediatrics. The MDS-R was anonymously distributed to pediatric otolaryngology faculty and fellows at a tertiary institution. Descriptive statistics, bivariate and multivariate analysis were performed."	14–94), which is lower than that found in the literature for pediatric surgeons (reported mean 72), pediatric intensivists (reported means 57–86), and similar to pediatric oncologists (reported means 42–52). Fellows had a significantly higher level of moral distress than faculty (mean 69 vs. 26, $p < 0.05$). Factors leading to higher degrees of distress involved communication breakdowns and pressure from administration/insurance companies to reduce costs."	moral distress compared to other pediatric subspecialists. Fellows had higher levels of distress compared to faculty. Further research is necessary to determine degrees of distress across institutions and to determine its impact on the wellness of pediatric otolaryngologists."

Rosenwohl-Mack et al. 2020	Understanding Experiences of Moral Distress in End-of-Life Care Among US and UK Physician Trainees: a Comparative Qualitative Study	Qualitative	NA	24	"We investigated cultural factors in the US and the UK that may produce moral distress within their respective healthcare systems, as well as how these factors shape experiences of moral distress among physician trainees."	"Semi-structured in-depth qualitative interviews about experiences of end-of-life care and moral distress" with "sixteen internal medicine residents in the US and fourteen junior doctors in the UK."	"Some drivers of moral distress were similar among US and UK trainees, including delivery of potentially inappropriate treatments, a poorly defined care trajectory, and involvement of multiple teams creating different care expectations. For UK trainees, healthcare team hierarchy was common, whereas for US trainees, pressure from families, a lack of guidelines for withholding inappropriate treatments, and distress around physically harming patients were frequently cited. US trainees described how patient autonomy and a fear	"This research highlights how the differing experiences of moral distress among US and UK physician trainees are influenced by their countries' healthcare cultures. This research illustrates how experiences of moral distress reflect the broader culture in which it occurs and suggests how trainees may be particularly vulnerable to it. Clinicians and healthcare leaders in both countries can learn from each other about policies and practices that might decrease the moral distress trainees experience."

							of lawsuits contributed to moral distress, whereas UK trainees described how societal expectations around resource allocation mitigated it."	
Roxanne et al. 2017	The Burdens of Offering: Ethical and Practical Considerations	Commentary	NA	NA	"We reflect upon highlights of a facilitated panel discussion from the 2016 Pediatric Cardiac Intensive Care Society Meeting. The session was designed to explore challenges, share practical clinical experiences, and review ethical underpinnings surrounding decisions to offer intensive, invasive therapies to patients who have a poor prognosis for survival or are likely to be burdened with multiple residual	NA	"Key issues discussed included patient's best interests, physician obligations, moral distress, and communication in the context of decisions about providing therapy for patients with a poor prognosis."	"As outlined by the participants of the session, decision-making about offering therapies in the face of poor likelihood of good outcome is in itself burdensome. Careful reflection concerning the patient's best interests and potential future QOL are subjective and are better understood within the context of parental input regarding values, beliefs, and cultural preferences."

					comorbidities if survival is achieved."			
Rushton et al. 2013	A framework for understanding moral distress among palliative care clinicians	Commentary	NA	NA	"Our objective was to expand a social psychology model focusing on empathy and compassion in response to suffering to include an ethical dimension and to examine how the interrelationships of its proposed components can assist clinicians in understanding their responses to morally distressing situations."	NA	In the clinical context, responses to distressing events are thought to include four dimensions: empathy (emotional attunement), perspective taking (cognitive attunement), memory (personal experience), and moral sensitivity (ethical attunement). These dynamically intertwined dimensions create the preconditions for how clinicians respond to a triggering event instigated by an ethical conflict or dilemma. We postulate that if the four dimensions are highly aligned, the intensity and valence of emotional	The adaptation and expansion of a conceptual framework offers a promising approach to designing interventions that help clinicians mitigate the detrimental consequences of unregulated moral distress and to build the resilience necessary to sustain themselves in clinical service.

							arousal will influence ethical appraisal and discernment by engaging a robust view of the ethical issues, conflicts, and possible solutions and cultivating compassionate action and resilience. In contrast, if they are not, ethical appraisal and discernment will be deficient, creating emotional disregulation and potentially leading to personal and moral distress, self-focused behaviors, unregulated moral outrage, burnout, and secondary stress.	
Rushton et al. 2013	Addressing moral distress: application of a framework to palliative care practice	Commentary	NA	NA	The objective was to illustrate the application of this adapted conceptual framework to a clinical case and to	NA	"In the clinical case, clinicians are expected to respond to the patient's suffering based on four factors:	"Application of the proposed framework to a clinical case provides opportunities for understanding mechanisms of

					offer recommendations for enlarging the professional repertoire for responding to challenging cases involving moral distress.		empathy (emotional attunement), perspective taking (cognitive attunement), memory (personal experience), and moral sensitivity (ethical attunement). Each of these interrelated and iterative factors may become activated as clinicians care for patients with life-limiting conditions. This creates the foundations for clinicians' responses. When responses risk becoming aversive in the face of moral dilemmas, strategies are needed to foster principled compassion instead of unregulated moral outrage. A number of cognitive, attentional, affective, and	response that may be amenable to intervention and for suggesting appropriate alternative strategies and practices. A full understanding of the process can help to mitigate or to avoid the progression of distress and concurrently to appraise the situation that leads to moral distress or moral outrage."

							somatic approaches derived from contemplative traditions are consistent with the framework. Combined with a systemsfocused approach that incorporates organizational factors, they offer a means of improving professional repertoires for responding to difficult situations."	
Sajjadi et al. 2017	Moral distress and burnout in internal medicine residents	Quantitative	10.5	NA	"Residents frequently encounter situations in their workplace that may induce moral distress or burnout. The objective of this study was to measure overall and rotation-specific moral distress and burnout in medical residents, and the relationship between demographics and	"The revised Moral Distress Scale and the Maslach Burnout Inventory (Human Service version) were administered to Internal Medicine residents in the 2013–2014 academic year at the University of	"Of the 88 residents, 45 completed the surveys. Participants (mean age 30±3; 46% male) reported a median moral distress score (interquartile range) of 77 (50–96). Twenty-six percent of residents had considered quitting because of moral distress, 21% had a high level of	"Internal Medicine residents report moral distress that is greatest during ICU and CTU rotations, and is associated with burnout and intention to leave the job."

					moral distress and burnout."	British Columbia."	burnout, and only 5% had a low level of burnout. Moral distress scores were highest during Intensive Care Unit (ICU) and Clinical Teaching Unit (CTU) rotations, and lowest during elective rotations ($p<0.0001$). Women reported higher emotional exhaustion. Moral distress was associated with depersonalization ($p=0.01$), and both moral distress and burnout were associated with intention to leave the job."	
Salehi et al. 2020	Consequences of Medical Hierarchy on Medical Students, Residents, and Medical	Qualitative	NA	NA	"(1) clarify the concept of medical hierarchy; (2) examine the role of medical hierarchy in medical education and resident training; (3) discuss the potential	Literature review	"Two types of hierarchies exist: ''functional'' and ''dysfunctional.'' While functional medical hierarchies aim to optimize patient care through	"1) Paradigm shift in relationship between trainees and leaders to ''just culture,'' in which trainees are not punished for expressing concerns and viewpoints. 2)

	Education in Otolaryngology				negative impacts of dysfunctional hierarchies, with a critical focus on the field of otolaryngology"		clinical instruction, dysfunctional hierarchies have been linked to negative impacts by creating learning environments that discourage the voicing of concerns, legitimize trainee mistreatment, and create moral distress through ethical dilemmas."	Organizations should promote the individual and personal lives of its trainees where possible, since residents who are physically and mentally well improve patient care."
Sanderson et al. 2019	Re-defining moral distress: A systematic review and critical re-appraisal of the argument-based bioethics literature	Qualitative	NA	NA	"There is a large body of literature associated with moral distress, yet multiple definitions now exist, significantly limiting its usefulness."	"We undertook a systematic review of the argument-based bioethics literature on this topic as the basis for a critical appraisal, identifying 55 papers for analysis."	"We found that moral distress is most frequently framed around individual experiences of distress in relation to local practices and constraints, and understood in terms of power relations and workplace hierarchies. This understanding is directly derived from, and often still seen as specific to, nursing. Frequently	"Based on our review, we propose a redefinition of moral distress: 'Ethical unease or disquiet resulting from a situation where a clinician believes they have contributed to avoidable patient or community harm through their involvement in an action, inaction or decision that conflicts with their own values'. This definition is specific

							the perspective of the morally distressed individual is privileged."	enough for research use, anchored in clinicians' professional responsibilities and concerns about harms to patients, framed relationally rather than hierarchically, and amenable to multiple perspectives on any given morally distressing situation."
Shahla et al. 2017	Having it all-Burnout and Moral Distress in Working Female Physicians in a Developed Asian Country	Quantitative	7	NA	"Our objectives were to study the incidence of burnout and moral distress amongst working female physicians using evidence based criteria in a developed Asian country."	"After IRB approval we sent out an anonymous survey via email to 100 female physicians currently practicing in Singapore."	"Our results show a 54% rate of burnout and an 8% rate of self-harm consideration. Family pressures and poor work life balance as well as motivational factors at work seem to be major contributors to this."	"This simple survey self-reported study gives a glimpse into the association between female physicians and burn-out in Singapore healthcare context, and the fact that such a phenomenon can potentially have a devastating effect on mental health, physical health and family's lives of these working female physicians."

Sheffield & Smith 2016	Requests for VIP Treatment in Pathology: Implications for Social Justice and Systems-Based Practice	Commentary	NA	NA	"Preferential treatment of patients whom we deem “very important” is a practice that is common in our health care system. The impact of this designation and the care that results is rarely studied or scrutinized. Although we assume that this type of treatment results in superior outcomes, this assumption can be wrong for a variety of reasons, which we discuss here."	NA	"Preferential treatment of VIPs can either be blatant, as in the case of celebrities or donors, or more insidious, as when members of the health care team are expected to treat other physicians or their family members preferentially. When confronted with the care of a VIP patient, we, as clinicians, feel pressure to provide care that is seamless, hassle-free, and error-free. Although this is what we want for all of our patients, we believe that such care is impossible in our current system, and so we try to circumvent the problems that we know exist. In trying	"As in the case of Javier, it is difficult to resist prioritizing a VIP’s care on a case-by-case basis. Instead, institutions should actively discourage any systematic prioritization of VIP patients. Development offices should not facilitate scheduling or be allowed to interfere with policies and procedures that apply to patients served by an institution. Hospital administrators and executives might not understand the possible harms that assumptions or unspoken promises of preferential care can cause to a system already rife with disparities."

							to rectify the inefficiencies and problems that we know about in treating VIPs, however, we might bypass standard protocols and create new problems with "work-arounds," actually increasing potential for error and harm."	
Smith 2013	Moral distress in academic medicine: my brother's keeper?	Commentary	NA	NA	Perspective article which describes an encounter with a junior resident who had concerns about "the pathologists at another institution were not grading one type of cancer the way that they had learned to do this at our hospital".	NA	NA	"Encouraging open discussions of issues and errors, however, is a good starting point. There is no shame in sharing ways to improve our practice. We are, after all, only human."
St Ledger et al. 2017	Doctors' experiences of moral distress in end-of-life care decisions in the	Qualitative	NA	17	"To explore moral distress in relatives doctors and nurses, in end-of-life care decision-making, in	"In-depth digitally recorded interviews will be conducted with relatives,	"This is the first time that moral distress is explored, in a case approach, among relatives, doctors, and nurses	"Dissemination of findings will make a large contribution to international knowledge and understanding in this

	intensive care unit				the adult intensive care unit."	doctors, and nurses involved in end-of-life cases comprising: (1) withdrawal of therapy, including circulatory death organ donation; (2) non-escalation of therapy; and (3) brain stem death with a request for organ donation. Relatives will be offered the opportunity to share their experiences on 'Healthtalkonline' by copyrighting audio-visual interviews to the Health Experiences Research Group, Oxford University.	intimately involved in end-of-life decisions in intensive care. Dissemination of findings will make a large contribution to international knowledge and understanding in this area and alert healthcare professionals and relatives to an otherwise under-recognized, but potentially detrimental, experience. Findings will inform education, practice, and policy."	area and alert HCPs and relatives to an otherwise under-recognized, but potentially detrimental, experience. Findings will be used to inform education, practice, and policy. Taking part in the study and donating interviews to HTO will provide participants an opportunity to share experiences with others going through similar experiences. The findings of this research will be used to inform clinical and university-based multidisciplinary education programmes to benefit future ICU patients and relatives, and HCPs caring for them. It is anticipated that this in turn will positively influence clinical practice and

						Research Ethics Committee approval was obtained (April 2012)."		inform future research and understanding. New insights will advance the concept of moral distress. The study findings and recommendations will be of interest to others beyond the realms of ICU and may inform organi- zational and strategic policy development. This study will also report on the usefulness and limitations of narrative methods in this area."
Stephen 2019	Palliative Care and Communication Training in Neurosurgery Residency: Results of a Trainee Survey	Mixed methods	12	13	"Neurosurgeons care for critically ill patients near the end of life, yet little is known about how well their training prepares them for this role. We surveyed a random sample of neurosurgery residents to describe the quantity and quality of teaching activities related to	"A previously validated survey instrument was adapted to reflect required communication and palliative care competencies in the 2015 the Accreditation Council for Graduate Medical	"Sixty-two responses were recorded between August 2016 and October 2016. Most respondents reported no explicit teaching on: explaining risks and benefits of intubation and ventilation (69%), formulating prognoses in neurocritical care	"Residents in our sample reported limited formal training, and relatively less observation and feedback, on required ACGME competencies in palliative care and communication. Most reported preparedness in this domain, but many were receptive

					serious illness communication and palliative care, and resident attitudes and perceived preparedness to care for seriously ill patients."	Education (ACGME) Milestones for Neurological Surgery. The survey was reviewed for content validity by independent faculty neurosurgeons, piloted with graduating neurosurgical residents, and distributed online in August 2016 to neurosurgery residents in the United States using the American Association of Neurological Surgeons (AANS)/Congress of Neurological Surgeons (CNS) Joint Section on Neurotrauma	(60%), or leading family meetings (69%). Compared to performing craniotomies, respondents had less frequent practice leading discussions about withdrawing life-sustaining treatment (61% vs. 90%, $p < 0.01$, "weekly or more frequently"), and were less often observed (18% vs. 87%, $p < 0.01$) and given feedback on their performance (11% vs. 58%, $p < 0.01$). Nearly all respondents (95%) felt "prepared to discuss withdrawing life-sustaining treatments," however half (48%) reported they "would benefit from more communication training during	to more training. Better quality and more consistent palliative care education in neurosurgery residency could improve competency and help ensure that neurosurgical care aligns with patient goals."

						and Critical Care email listserv. Multiple choice and Likert scale responses were analyzed using descriptive statistics.”	residency." Most (87%) reported moral distress, agreeing that they "participated in operations and worried whether surgery aligned with patient goals." “	
Thomas et al. 2016	A Qualitative Study Exploring Moral Distress Among Pediatric Resuscitation Team Clinicians: Challenges to Professional Integrity	Qualitative	NA	19	"Our study objectives were to explore moral distress among pediatric team clinicians within the context of resuscitation experiences, and determine whether there were any distinctively ethical perspectives on moral distress that could be conceptualized as challenges to professional integrity, rather than to previously described psychological responses of clinicians."	"Twenty-five PICU resuscitation team clinicians were interviewed from December 2012 to April 2013."	"All clinicians reported experiencing moral distress during certain resuscitations. Twenty-one of 25 clinicians reflected and acknowledged that their sense of professional integrity had been challenged during those resuscitation events. Four main components of resuscitation experience that induced moral distress were identified: 1) experiences where there was lack of	"The perception of moral distress exists among pediatric clinicians during resuscitations and could be conceptualized as challenges to professional integrity. This ethical framework offers an alternative approach to understanding and investigating the complex layers of moral distress."

							understanding of the big picture; 2) experiences where there was suboptimal team leadership; 3) experiences where there was variable meanings to the word "resuscitation"; and 4) experiences were there was uncertainty of role responsibility."	
Tigard 2017	Rethinking moral distress: conceptual demands for a troubling phenomenon affecting health care professionals	Commentary	NA	NA	"Make clear what a robust account of moral distress should be able to explain and how the most common notions in the existing literature leave significant gaps"	NA	"Jameton, Wilkinson and Corley's early and most influential definitions of moral distress are incomplete, with a a number of important desiderata for a robust account not fully satisfied"	"An explanatorily satisfying conception of MD is still needed."
Traudt & Liaschenko 2017	What Should Physicians Do When They Disagree, Clinically and	Commentary	NA	NA	"This article addresses the virtues and communication strategies needed to respond appropriately	NA	NA	"Good moral communicative work can help mitigate moral distress. However, even the

	Ethically, with a Surrogate's Wishes?				in such situations. Specifically, we offer a framework and language that rely on moral community to facilitate common ground and alleviate moral distress."			most virtuous and skilled communicator may not be able to move the patient's wife from her position. This could be the case even after ethics consultation resources have been utilized. When such a disagreement occurs, it is important to recognize and acknowledge that the moral community of caregivers might need to cope with the tragedy of providing aggressive treatment that prolongs a patient's suffering."
Trotochaud et al. 2015	Moral Distress in Pediatric Healthcare Providers	Quantitative	11	NA	"The objectives of this study are: (1) to determine the degree of moral distress experienced by pediatric providers from different professional groups and working in different clinical settings; (2) to	"A descriptive study on moral distress in pediatric providers was conducted in April and May 2012. The setting was a large pediatric health system in	"A direct relationship was found between high MDS and respondents stating that they had left or considered leaving a clinical position. Greater than a third (n = 308, 35.7%) of respondents reported	"In conclusion, the purpose of this study was to more fully assess the degree of moral distress experienced by different pediatric providers in a variety of clinical settings, including moral distress experienced

					describe the relationship of moral distress to pediatric provider intent to leave; and (3) to identify specific situations more likely to be associated with pediatric provider moral distress."	the southeast that includes three children's hospitals with 60 pediatric specialties. A convenience sample included all registered nurses providing direct patient care (n = 1765); attending physicians with admitting privileges, subspecialty fellows, and pediatric residents (n = 650); and other healthcare professionals including respiratory therapists, social workers, physical therapist, and other healthcare providers (n = 626)." "The	having left or considered leaving a clinical position because of moral distress. The average MDS was statistically higher for those who considered leaving their position but stayed and for those who actually left a clinical position (80.6 and 60.4, respectively) as compared to those who had never considered leaving their position."	outside of ICU settings. Using the results of this study, pediatric organizations can begin to develop context-specific interventions to address provider moral distress. Strategies may be created that help providers recognize morally distressing situations when they experience them, offer providers proactive and in-the-moment tools to address these situations, and support providers through morally challenging and unalterable situations when there is no way to change the course of action."

						survey was sent via e-mail and providers were invited to complete the survey through a direct link to SurveyMonkey ®. Participants were given 6 weeks to complete the survey with reminders sent to non-respondents at 2 and 4 weeks."		
Vincent et al. 2020	Moral distress perspectives among interprofessional intensive care unit team members	Qualitative	NA	14	"To examine interprofessional healthcare professionals' perceptions of triggers and root causes of moral distress."	"A subset of interprofessional providers from a parent study provided open-text comments that originated from four areas of the Moral Distress Scale–Revised, including the margins of the 21-item questionnaire,	"All 28 participants working in the four medical center intensive care units reported feelings of moral distress. Feelings of moral distress were associated with professional anguish over patient care decisions, team, and system-level factors. Professional-level contributors	"Moral distress was associated with feelings of anguish, professional intimidation, and organizational factors that impacted the delivery of ethically based patient care. Participants expressed a sense of awareness that they may experience ethical dilemmas as a consequence of the

						the designated open-text section, shared perceptions of team communication and dynamics affecting moral distress, and the section addressing an intent to leave a clinical position because of moral distress. Open-text comments were captured, coded, and divided into meaning units and themes using systematic text condensation."	reflected clinician concerns of continuing life support measures perceived not in the patient's best interest. Team and unit-level factors were related to poor communication, bullying, and a lack of collegial collaboration. System-level factors included clinicians feeling unsupported by senior administration and institutional culpability as a result of healthcare processes and system constraints impeding reliable patient care delivery."	changing reality of providing healthcare within complex healthcare systems. Strategies to combat moral distress should target team and system interventions designed to improve interprofessional collaboration and support professional ethical values and moral commitments of all healthcare providers."
Weissman 2009	Moral Distress in Palliative Care	Perspecti ve	NA	NA	Opinion piece of a palliative care consultant	NA	"I do not believe moral distress is inevitable, the degree to which one becomes distressed is likely to follow a	"My hope is that through better awareness of the problems we face, we can learn to channel our moral distress into

							bell-shaped curve related to personality traits, coping styles, past experiences, and concurrent stressors."	positive acts of system change leading to better care for patients and greater peace for ourselves."
Westling et al. 2017	Perceived Ethics Dilemmas Among Pioneer Accountable Care Organizations	Qualitative	NA	22	“The purpose of our study was to more fully understand the various domains of ethical dilemmas present in organizations participating in the Pioneer ACO model of care. The Pioneer program is of particular interest because it was designed for leading health systems to be early adopters of the ACO model.”	"Semistructured interviews with key informants at 7 Pioneer ACOs"	"The ACO model is creating moral distress for physicians and business leaders in seven critical ways: 1. Incompatible reimbursement models 2. Two standards of clinical care 3. Financial incentives versus patient choice 4. “Best” care disagreements 5. Required ACO metrics versus evidence-based care 6. Shifting resources to focus on prevention 7. Limited support systems for resolving ethical conflicts"	“Engaging physicians in developing compensation plans, looking to specialty societies for best practice guidance, accepting limited numbers of non-ACO patients in ACO care management programs, and linking quality improvement efforts to resolve systemic issues. However, few of the sites have proactively addressed ethics at the organizational level in a deliberate, coordinated way.”

Whitehead et al. 2015	Moral distress among healthcare professionals: report of an institution-wide survey	Quantitative	NA	11	"Moral distress is a phenomenon affecting many professionals across healthcare settings. Few studies have used a standard measure of moral distress to assess and compare differences among professions and settings."	"Data were gathered via a web-based survey of demographics, the Moral Distress Scale-Revised (MDS-R), and a shortened version of Olson's Hospital Ethical Climate Scale (HECS-S)."	"Moral distress was present in all professional groups. Nurses and other professionals involved in direct patient care had significantly higher moral distress than physicians ($p = .001$) and other indirect care professionals ($p < .001$). Moral distress was negatively correlated with ethical workplace climate ($r = -0.516$; $p < .001$). Watching patient care suffer due to lack of continuity and poor communication were the highest-ranked sources of moral distress for all professional groups, but the groups varied in other identified sources. Providers working	"Although there may be differences in perspectives and experiences, moral distress is a common experience for clinicians, regardless of profession. Moral distress is associated with burnout and intention to leave a position. By understanding its root causes, interventions can be tailored to minimize moral distress with the ultimate goal of enhancing patient care, staff satisfaction, and retention."

							in adult or intensive care unit (ICU) settings had higher levels of moral distress than did clinicians in pediatric or non-ICU settings ($p < .001$). Providers who left or considered leaving a position had significantly higher moral distress levels than those who never considered leaving ($p < .001$). Providers who had training in end-of-life care had higher average levels of moral distress than those without this training ($p = .005$)."	
Wocial et al. 2017	Pediatric Ethics and Communication Excellence (PEACE) Rounds: Decreasing Moral Distress	Quantitative	7.5	NA	"This article reports the evaluation of this practice innovation project aimed at reducing moral distress of healthcare providers in a PICU. We evaluated the	"Over a year, weekly meetings (PEACE rounds) to establish goals of care for patients with longer than 10	"Moral distress scores measured intermittently with the MDT fluctuated. “Clinical situations” represented the most frequent contributing factor	"The addition of a clinical ethicist and senior intensivist to weekly interprofessional team meetings facilitates difficult conversations regarding realistic

	and Patient Length of Stay in the PICU				impact of the project on staff and on the target patient population (patients with extended ICU length of stay)."	days length of stay in the ICU."	to moral distress. Post intervention, overall MDS-R scores were lower for respondents in all categories (non-significant), and on three specific items (significant). Patient outcomes before and after PEACE intervention showed a statistically significant decrease in PRISM indexed LOS (4.94 control vs 3.37 PEACE, p=0.015), a statistically significant increase in both code status changes DNR (11% control, 28% PEACE, p=0.013), and in-hospital death (9% control, 25% PEACE, p=0.015), with no change in patient 30 or 365 day mortality."	goals of care. The PEACE intervention had a positive impact on some factors that contribute to moral distress and can shorten PICU length of stay for some patients."
Wocial et al. 2020	Factors associated with	Quantitative	13	NA	"To determine frequency of and	Prospective survey of	"Physicians experienced moral	"Physician moral distress occurs more

	physician moral distress caring for hospitalized elderly patients needing a surrogate decision-maker: a prospective study				factors associated with physicians' moral distress caring for patients requiring a surrogate."	"physicians (n = 154) caring for patients aged 65 years and older and their surrogate decision-makers (n = 362 patient/surrogate dyads). Patients were admitted to medicine or medical intensive care services, lacked decisional capacity and had an identified surrogate."	distress in the care of 152 of 362 patients (42.0%). Physicians were more likely to experience moral distress when caring for older patients (1.06, 1.02–1.10), and facing a decision about life-sustaining treatment (3.58, 1.54–8.32). Physicians were less likely to experience moral distress when caring for patients residing in a nursing home (0.40, 0.23–0.69), patients who previously discussed care preferences (0.56, 0.35–0.90), and higher surrogate ratings of emotional support from clinicians (0.94, 0.89–0.99). Physicians' internal discordance when they prefer a more comfort-focused	frequently when the physician is male, the patient is older or requires decisions about life-sustaining treatments. These findings may help target interventions to support physicians. Prior discussions about patient wishes is associated with lower distress and may be a target for patient-centered interventions."

							plan than the patient is receiving was associated with significantly higher moral distress (2.22, 1.33–3.70) after adjusting for patient, surrogate, and physician characteristics."	
Zimmermann et al. 2019	Factors That Impact Moral Distress for Surgeons Caring for Older Adults with Life-Limiting Acute Surgical Conditions	Qualitative	NA	NA	"Our objective was to understand the relationship between factors that promote nonbeneficial surgery and moral distress in surgeons caring for older adults with life-limiting surgical conditions."	"We mailed a survey, which included questions adapted from the moral distress scale, to 5,200 randomly selected surgeons in the American College of Surgeons member database. We used Jonckheere-Terpstra tests for ordered alternatives to analyze the	"The adjusted response rate was 53%. Eighty percent of surgeons reported respecting a family's request for surgery when they believed surgery was not in the patient's best interests as very or somewhat distressing, and nearly half reported that this occurs sometimes or often in their practice. Surgeons who believed their role in surgical decision making was to offer choices and let the	"Surgeons experience high levels of moral distress when they feel pressured to perform surgery without clear benefit. Models of decision making that rely on rigid interpretations of patient autonomy may be contributing to moral distress."

						association between system, surgeon, and family-related factors that influence nonbeneficial surgery and moral distress reported by respondents."	patient or family choose were more likely to report moral distress (p = 0.004); surgeons who believed they were ultimately in control of preventing nonbeneficial surgery were less likely to report moral distress (p < 0.001)."	
Zimmermann et al. 2020	The association between factors promoting non-beneficial surgery and moral distress: A national survey of surgeons	Quantitative	12.5	NA	"To assess the prevalence of moral distress among surgeons and test the association between factors promoting non-beneficial surgery and surgeons' moral distress."	"We mailed surveys to 5,200 surgeons randomly selected from the American College of Surgeons membership, which included questions adapted from the revised Moral Distress Scale. We then analyzed the association between factors	"The weighted adjusted response rate was 53% (n=2,161). Respondents whose decision to offer surgery was influenced by their belief that pursuing surgery gives the patient or family time to cope with the patient's condition were more likely to have high moral distress (34% vs 22%, p<0.001), and this persisted on	"Surgeons experience moral distress when they feel pressured to perform surgery they believe provides no clear patient benefit. Strategies that empower surgeons to recommend non-surgical treatments when they believe this is in the patient's best interest may reduce non-beneficial surgery and surgeon moral distress."

						influencing the decision to offer surgery to seriously ill older adults and surgeons' moral distress."	multivariate analysis (OR 1.44, 95% CI 1.02-2.03). Time required to discuss non-operative treatments or the consulting intensivists' endorsement of operative intervention, were not associated with high surgeon moral distress."	