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Moral Distress, Burnout, and Moral Injury in Healthcare Professionals

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I first met the patient when I was sitting with him as a one-on-one tech. He was slightly confused and disoriented and required a lot of direct care. The tech who I relieved mentioned that the patient had a syncope episode the day before when getting up to use the bathroom but had gotten up fine with him that day. This made me nervous, as the patient was at least a foot taller than me, and at least 75 pounds heavier than me. If I got the patient up, I would be responsible for making sure that he did not fall, and if he did, I would be responsible for catching him. I mentioned this to the patient's nurse, who is undoubtedly one of the most amazing nurses I have ever had the pleasure of working with. She, with her seemingly never-ending knowledge and experience, showed me a method of transferring a patient to the bedside commode I had never known or seen, which seemed revolutionary to me and eased my initial concerns. As I sat with the patient, we talked about his cat, who he couldn't wait to get home to, and his family. While I cannot give specifics, I got to know him, learning a lot about his family and daily life.

Later in the night, he said that he needed to use the bathroom. He had gotten progressively more disoriented throughout the night, and now was insistent that he could get to the bedside commode despite how he was shaky and sweating profusely. With how his condition had deteriorated, I was again concerned about trying to get the patient up. However, my attempts to convince him to use the bedpan were ignored as he struggled against the sheets and side rails of the bed. He was going to get out of the bed within the next 30 seconds with or without my help and was getting increasingly agitated as he struggled and shook with the effort. I quickly made the decision that we could try the method the nurse had recommended of putting the bedside commode up against the edge of the bed, and simply scootching over onto it rather than having to stand up and turn in order to get on it. I lowered the side rail of the bed, and immediately, the patient shot out a hand to grip my shirt, attempting to pull himself up using me. There was surprising strength behind that pull, and it caught me off guard, nearly sending me sprawling over the patients' bed before I was able to counterbalance and transfer his grip over to my shoulder. "Listen to me, hold on, wait, listen, this is what we are going to do, okay?" I tried to get through to him as he pulled me around to try to maneuver himself, his breath shaky, forehead streaming with sweat.

The smell of sickly sweat, of old grime, and previous dried sweat renewed by the new sweat soaking him in his struggle, made me cringe somewhat, and regret not getting the change to grab gloves in my haste as my hands stuck to the skin of his forearms as if there was a layer of

syrup coating him. I finally was able to make eye contact with him, his eyes wide and wild, pupils pinpoints and the whites of his eyes seeming to gleam in the bright hospital lights. He was barely able to focus his gaze on me, obviously disoriented. I explained to him how we were going to work to get him over to the bedside commode together, and he nodded as his grip on my arms renewed its strength in preparation. Slowly, I steadily leaned backwards, keeping my grip on his forearms firm, as his hands also clasped like vices around my bicep, using my weight to pull him up just enough for him to slide sideways along the bed a few inches without having to fight the friction his weight caused against the bedsheets. I lowered him back to the bed, readjusted my position, and did it again and again until it was time to slide him from the bed onto the commode. We were both sweating at this point, my scrubs clinging to me and my hair sticking to my neck. To get over the bump from the edge of the bed and commode, we were going to have to stand him up. Whereas previously, I was using leverage to bear his bodyweight without his aid, now he would have to use his own legs because I did not have the strength to lift him straight off the bed and carry him. I counted down with him, bracing my feet firmly, squatted down to where my shoulder was wedged under his armpit. On three, he pushed with shaking legs, his arm slung over my shoulder pulling at my neck as he counterbalanced against me. I also pushed up against him using my shoulder, feeling as if I was weightlifting, taking as much of his weight as I could. For a few seconds I struggled, doubting whether we were going to be able to get him to stand, yet there was a sense of relief when his knees fully extended, locking into place and he was suddenly holding his whole weight as he towered over me. He was panting, shaking slightly, and I was surprised, because I had told him to just help me lift him enough to hop over the bump, not to stand all the way up. I found myself impressed for all of about three seconds as I encouraged him to sit back down on the commode now that it was behind him, before his eyes suddenly rolled back in his head and he came crashing down.

I had stayed in my braced position, as I was trained for when getting up patients who may be unstable, and that training kicked in before I even had the chance to process the situation. With the angle I was at, he fell directly onto me, head and shoulders slumped over my left shoulder as my arms came up to latch onto him, and most of his weight settling onto my left thigh as he basically sat on me, completely limp. I struggled to shift more of his weight to my left arm, freeing my right hand from its death grip on his gown to stop him from sliding to the ground long enough to press the panic button on my badge pinned to my scrubs.

Immediately, the alarm began blaring out in the hallway, and I could hear its distant echo from in the room. Footsteps pounded, and the door to the hospital room slammed open to admit six nurses squeezing through the doorway. In the front was the patients nurse, and I felt a rush of relief even as I trembled with the effort of holding his entire body weight and the adrenaline of 'oh shit' on repeat in my brain. It felt like time had slowed down, and it was with a surprisingly steady voice that I said "he had another one" as I made eye contact with his nurse. Through that eye contact I could see her understanding and could tell she saw my plea for help and relief that she was there. There was a flurry of activity as the nurses sprang into action, lowering the bed completely flat, putting down all the bedrails, and coming to help me support the patient. "Did he hit the floor?" his nurse asked. "No, I caught him" I replied as I helped the nurses transfer him to the bed, laying him back, rubbing his chest to get a response. He was coming back around, stirring slightly. "How long was he out?" "About 30 seconds before you all got here." The questions rolled in, and I answered quickly even as I fastened a blood pressure cuff to the patients arm for an emergency set of vitals. "I didn't pass out," came a groggy groan from the patient as he tried to sit up despite the hands and voices urging him to stay lying down. His nurse, terrifyingly competent as she is, puts up with no bullshit nor any denial, and thus plainly told him yes, he did in fact pass out, and no, he was not getting back out of this bed for the rest of the night.

Once the patient was once again settled in the bed, no longer feeling the need to go to the bathroom, the nurses began to file out, his nurse the last in the room as she paused, saying "Good job, you did well," before she left the room. That small encouragement was enough to bolster me and help me keep going despite the shakiness of my limbs as the adrenaline wore off. My hesitation became persistent at the forefront of my mind to once again be left alone to assume the burden of responsibility for a patient who now was obviously in more critical condition than was originally thought, as evidenced by the second syncope event. I resettled in my chair pushed in the corner of the room. The lights were dim, the patient sprawled over the bed with covers thrown off as he snored away. After about a half hour of this peace, I was able to start relaxing back into the normal watchfulness required as a sitter, rather than the tense vigil I had been holding in fearful preparation for something else to go wrong. The remainder of my shift passed in relative peace, the patient only waking briefly for some water, a routine morning blood draw, and his morning medications. However, despite his slumber, I watched as he slowly became

paler, his face more drawn, sweat causing shivers despite his slowing increasing temperature. His breath was more ragged than it was twelve hours ago, his confusion more palpable when he spoke, his eyes struggling to focus when he was awake. Despite how on the surface his sleep seemed peaceful, I asked another tech to sit with him so I could talk to his nurse. I went to her as she sat at her computer, charting, and preparing for the last round of medications before the end of our shift. I described what I saw, how he had changed overnight, and how I was concerned about his condition. “Something is wrong. We are missing something, but I don’t know what,” I said, and her forehead creased as she nodded, obviously considering my concerns. She got up, leading the way back to the patients’ room, observing his sleep quietly at first, before waking him, doing a quick physical exam, and then pulling me aside at the doorway as he dozed back off quickly. She agreed that something was off but could not pinpoint what it was. She promised to pass these concerns on to dayshift, and to ensure that the nurse he got was the most experienced and capable for if things went downhill quickly. When shift change came, I carefully briefed the tech who came to replace me, emphasizing that something was wrong, and that they needed to keep a close eye on his condition. I left soon after, hoping to get enough sleep to start my shift later that night with a clean slate.

I dragged myself from my bed later that day with difficulty, not even hungry amid my exhaustion despite the eight hours of dead sleep I got. Now on to my night shift. The world was foggy and distant as I forced a meager breakfast down and quickly dressed in new scrubs, grabbing my things, and trudging out to my car. The entrenched routine of getting caffeine before my shift lead me to Seven Brew without memory of how I had driven there. It was not until I had chugged at least 12 ounces of the 48-ounce large coffee in the car on my commute to work that I was able to break out of the fog and try to get myself into the mindset required for work. I arrived and found myself assigned to tech for the same floor I was sitting on the night previous. However, I was not assigned the room with last night’s patient, instead getting the opposite half of the floor. The other tech working that night was relatively new, and the tech sitting one on one with the patient was even newer, only a recent high school graduate. Due to my concern about the patient, and how I was the most experienced tech working that night, I sat in on the report given even though he was not assigned to me. It was a bit of a shock to my system when the dayshift tech said they had found a Gastrointestinal (GI) bleed during the day, and that his condition had continued to plummet during their shift. There was a certain sense of

satisfaction that I had been right, there had been something wrong, and maybe my bringing attention to it had helped the issue be discovered sooner. However, I also felt a lot of dread. Firstly, there is no smell worse in healthcare than a GI bleed, and I knew I was going to get pulled into helping to care for and clean the patient later tonight. Secondly, GI bleeds are dangerous. My very first rapid response had been with a patient who had a GI bleed. I had heard of patients dying from GI bleeds, and I knew how difficult they could be to get under control.

It was a relief to see that the same nurse from the night before once again had this patient, and I trusted her judgement and abilities in the case things would spiral. After report, the start of my shift was hectic and busy as usual, with introductions to each of my patients, gathering the first set of vitals for the night, and performing the usual tasks of daily living, such as helping patients to the bathroom, giving them bed baths if needed, bringing them ice water, snacks, and warm blankets as requested. It was only once I collapsed back into my chair at the nurses' station that I had the time to wonder about the condition of the patient. The other tech soon joined me, sitting heavily in her own chair beside me, taking deep breaths with closed eyes as she recovered from the rush. I asked about the patient, inquiring as to how he was doing. She responded "It's bad. By far the worst GI I have ever seen." It felt like my stomach was full of rocks, and I wondered distantly just how bad the bleed was. Was this really a bad bleed, or did she just not have much experience with GI bleeds before? I answered my own question not even twenty minutes later when the tech sitting with the patient called the nurses station for help cleaning him up. The other tech looked at me pleadingly as I knew she would, and without a word, I joined her in our trek to the patients' room. I had trained this other tech not even a month ago, and we had gotten quite close, helping and supporting each other through many gross, hilarious, scary, and otherwise difficult situations.

I had prior experience with GI bleeds, especially their smell. As I write this, I swear I can smell this particular bleed now, haunting me. Despite my experience, and my considerable practice in controlling my reactions, I gagged as we opened the door to the patients' room. I felt bad for my visceral reaction and struggled not to gag again as we went further into the room, clamping my mouth shut and swallowing thickly. The tech sitting with the patient was standing by the counter, looking terrified, and both she and the other tech turned to look at me for guidance. Once I got ahold of myself and took a closer look, I quickly realized why. To my terror, the patient had passed so much blood that it was dripping off the edges of the bed, soaking

the sheets from the patient's neck to his calves. I took a deep breath to steady and center myself, immediately regretting it as my stomach roiled and threatened to empty itself, before directing the older of the two techs to first inform the nurse, and then to get several large biohazard bags along with cleaning supplies and fresh linens. The youngest tech quickly turned and fled the room while I accessed the patient himself, finding him pale but cognizant, able to talk to me, hold my gaze, and recognize me from the night before. I was wary of the amount of blood, but no longer as alarmed, reassured by the patient's disposition as he apologized for the mess and I reassured him that it was okay, and that we would get him cleaned up shortly. The nurse rounded the corner of the doorway so quickly that it seemed like she appeared out of thin air, the tech I sent hovering slightly behind her. I made eye contact with the nurse, and my lack of panic seemed to slow her down, and I watched as her eyes flickered over the scene, making the similar assessments that I had. She had no qualms or hesitation as she slapped on a pair of gloves and accessed the patient, even as I continued to struggle to control my stomach. She did a quick physical, checking on the patient, asking him some questions, before turning to us three techs all huddled behind her. She directed us to collect all the supplies I had previously mentioned, plus a few extra items, sending the other two techs out as I worked with her to raise the bed, lower the rails, untuck the bottom sheet, and prepare to do a full bed change.

There is no good way of explaining the process of a full bed change, and the situation we had found ourselves in with this patient was far from that ideal, although the process of rolling, tucking, cleaning, more rolling, more cleaning, some pulling, more cleaning, more rolling, more pulling, then finally, resettlement is pretty similar.

With the arrival of the other two techs, the nurse left to inform the doctor of the large blood loss, although it did not seem to be having an immediate impact on the patients' condition. Steeling myself, I motioned for the youngest tech to be the one handling supplies and holding open the huge biohazard bag, while the other tech stood on the opposite side of the bed from me. The first roll was difficult, the sheets sticking to the patient as I helped him turn towards me. There was a flurry of activity as blood-soaked sheets were rolled and tucked up directly behind and under the patient, using chucks pads to cover the bloody sheets so as to not re-dirty the bed as it was cleaned. The patient was wiped down thoroughly with bath wipes, pack after pack being used and discarded into the biohazard bag. The tech across from me heaved silently a few times, turning away at one point to collect herself for a few seconds. Once he was clean, the bed

itself was quickly wiped with disinfectant wipes, the smell burning through the terrible stench of bloody stool. With that new realization, I quickly stuffed one of the packs of disinfectant wipes under my nose and gulped air that stung as I inhaled but settled my stomach and allowed me a break from fighting back the urge to gag or vomit. I distantly wondered if breathing all that in would give me cancer someday, since we weren't even supposed to touch these wipes without gloves, but I quickly discarded the distant concern with a thought of 'oh well.' With the bed now clean, fresh sheets were added to the bed with liquid proof and absorbing chucks added on top, carefully to keeping the spoiled sheets from the new ones. And then, it was time to roll again. "Roll away from me now, over the big bump!" I told the patient, guiding him to the correct position. As he moved, a fresh wave of GI bleed stench wafted into my face, and at such a close range, I could not fight off the gagging which ensued. I felt terrible for doing so, knowing that the patient could hear me, as he once again apologized for the mess. One of the other techs reassured him, as I tried to get control of myself. Once I was sure the patient was stable, I quickly took a few steps back from the bed, sticking my nose directly in the pack of disinfectant wipes to stave off the urge to vomit as my eyes watered and the back of my throat burned with stomach acid. The other two techs looked at me worriedly, but I shook my head and retook my position at the bedside in silence. Now that the patient was turned away from me, the remainder of the blood was revealed for me to clean. I quickly gathered all the soiled sheets, and with one solid tug, pulled them free from under his body before dumping them into the waiting biohazard bag. This time, I was expecting it, I was able to gag silently, afforded the luxury of being able to move with the clench of my stomach since the patient could not see me. I heaved silently, swallowing heavily, eyes watering and breathing haggardly through my nose only when I could quickly bend to get close to the bag of disinfectant wipes. I shook my head again at the glances of the other two techs, continuing my work as I made my way through three packs of bathing wipes to clean the patient, before regretfully using up my pack of disinfectant wipes to clean the bed.

With the vast majority of the blood cleaned up and contained within the biohazard bags, I quickly instructed the youngest tech who had been holding the bags open for easy access to close them and dispose of them. She did so at lightning speed, and the awful smell began to dissipate as I pulled the edge of the clean sheets free from under the patients' body, securing the edges before instructing him that he could now lay on his back. The other tech and I confirmed

that he was clean, and then quickly resettled him under a fresh sheet and blanket, getting him as comfortable as possible. The youngest tech reentered the room with a bottle of odor neutralizer, which she sprayed liberally all over the room. She thanked us for our help and with that, the other tech and I left. Once out in the hallway I gulped the clean air, hunching over with my hands braced on my knees, the lingering nausea and smell giving me a headache. (I have given myself secondhand nausea even just by writing this) Beside me, the other tech leaned back against the wall with her eyes closed, also trying to gather herself. We unsteadily headed back to the nurses' station and collapsed into our chairs with a sigh. I popped a peppermint into my mouth and then sprayed the deodorizing spray all over me to try to get rid of the lingering smell that clung to me even though I knew it would hover at the edge of my senses until I got to go home at the end of my shift.

Although I hoped that I would not have to deal with such a situation again, I knew that it would happen at least a few more times during our shift, judging by the severity of the bleed. Sure enough, this cycle repeated twice more, and after the third time the patient was pale and lethargic, the techs exhausted. I went to his nurse in her makeshift nook across from the nurses' station, where the lights were off, and she was surrounded by patient charts and papers. Once again, I told her my concerns, but this time, I told her that he needed to be transferred down to the ICU, that we had too many patients to safely dedicate the time and effort to him that he needed. His nurse agreed with me that he needed to be transferred but informed me that all the ICU beds were full. I pushed, insisting that he needed more care and could not wait much longer for a bed to become available, and she nodded with a sigh, grabbing her pager. I left her to it, again reassured that she would fight for the needs of her patient to get him the care that he truly needed.

The end of the shift could not come fast enough. I had skipped lunch, knowing that if I ate and then had to go back into that patients' room to help clean him up, I would surely be sick. Instead, I sucked on peppermints all night interspersed with energy drinks to keep me going. By 6am, I was exhausted, my feet heavy, my stomach churning, although I knew not whether it was from hunger or left-over nausea. Just as I was settling in to give shift report, I saw the patient in his bed being wheeled down the hallway by his nurse. She made eye contact with me and nodded before she guided his bed into the elevator. As the elevator doors closed, I got one last look at the patient, pale and limp on the bed, and a mix of emotions overcame me. Satisfaction and relief

that he was going to ICU, and would get the best care possible, worry that he would not make it, pride that his nurse had stood up and was successful in her advocacy. I did not expect to see him again, and I proceeded through shift change report feeling as if a burden was lifted.

The next night, I returned to work much as the day before, fighting sleep until I got my Q6 dose of caffeine, and then bracing myself for the work to come. Compared to the night before, my patient load and the overall acuity of the patients on the floor seemed easy, and I found myself lighthearted. I was also not the most experienced tech working that night, and thus would not be relied on to have all the answers or solve all the problems of the other techs. It was overall seeming like it would be a good night, when suddenly, the intercom overhead announced a code blue. I froze, making eye contact with the other tech and the nurses at the nurses' station before springing into action. The location of the code was in the cath lab, outside of either the ICU or ER, and thus, the ICU, ER, and ACU (where I was working) would each send a few people to help since they could not spare more than a few of their own staff members while continuing to care for their own patients. I sprinted down the length of the nurses' station to the med room, quickly punching in the code and grabbing a handful of flushes, and then rushing back out, snagging the doppler held out by one of the nurses as I and one other nurse sprinted to the elevator. We rushed in, taking the elevator down five floors before breaking into a run once again as soon as the doors opened. Others responding met up with us, converging together onto the scene in a pounding stampede. There was someone already doing CPR, solid thumps echoing through the room as voices interwove throughout the room, calling out meds, times, people, and instructions. I quickly found the charge nurse amidst the chaos, pressing the doppler into her hands, which she quickly took off with. I lingered then, behind the IV pole at the back of the room with my hand full of flushes, providing them as needed to nurses pushing emergency meds. I had seen a code before but had never been a participant. Something about this code was off. It felt disjointed, too busy, and it wasn't until the charge nurse called out over the din "Who is recording?! How long since the last epi?!" that I realize what it was. There was silence broken only by the continued thumps of CPR as everyone came to that same realization that there was a role missing that no one had filled. This was a role that I, myself, in my position and with what training I had, could not fill. "Just give him another dose, it's not going to hurt him at this point'" The doctor instructed from the side of the room. I was uncomfortable with the lack of concern in his voice, or on his face, leaning against the wall as if he could not care whether this patient lived

or died. It was then, in the momentary stillness, that I finally got my first look at the patient's face. It was the patient from the two nights before, who I had cared for, gotten to know, had advocated for his transfer down to ICU. There was a sense of distance from the proceedings now, the patient's identity a shock I could not help but keep affirming with glances to his pale, slack face, eyes open and unseeing, mouth hanging open.

Someone mentioned that the nurse currently doing CPR had been going for quite a while now and needed a break. One nurse guided another forward with the words "We have a new grad ICU nurse, this will be her first time doing CPR!" to my disbelief, and distant horror, there were a few claps and even a cheer as she stepped up onto the step stool next to the patient. She could not have been more than a year older than me, and her compressions, once started, were starkly different from the more experienced nurse who had come before her. Whereas before the patients' whole body bounced with the force of the compressions, and the sound of them was clear even through the voices and beeping of the machines, now, his body barely shook. It was obvious to me that she was not putting enough force into the compressions, that she needed to increase the depth of them in order to be effectively reaching his heart. I was distracted from my discomfort and desire to intervene by the need to supply more flushes as the next round of medication was called out by the person now filling the role of recorder.

When I refocused on the new nurse and her ineffective compressions, I felt the urge to speak up, say something, but wondered why no one else was saying anything. Was I wrong in my assessment, and her compressions were fine? I had only seen one code prior to this where compressions were performed, and based off that memory, and my own CPR training, I was decently sure that I was right and that she needed to increase her force. However, there were people much more experienced and knowledgeable than me in the room, and they were not saying anything. What would happen if I did say something? Would I simply be ignored, or, like I feared, would they call on me to try to do better if I thought she was not doing good enough? However, before I could decide or get over my hesitation, the previous nurse resumed compressions to my relief. Once again seeing the vast difference, and the confidence and surety of the more seasoned nurses' compressions reaffirmed my assessment that the new grad indeed was not doing them properly. I wished that the patient's nurse from the night before was there

because I would feel comfortable mentioning my concerns to her, and I knew she would either intervene, or reassure me that everything was alright.

With the more experienced nurse once again doing compressions, I turned to the nurse who had accompanied me down to the code, informing her that this was my former patient from the last two nights. She was shocked, because while she had never seen or cared for the patient, she had undoubtedly heard, and smelled, the struggles the nurse and techs had been through while caring for him. I felt validated that someone else was shocked, that I was not the only one feeling emotion when so many people in the room seemed so uncaring. People clapping during a code, smiling at each other, the doctor relaxing up against the wall. But there were some people amongst the group that I could tell really cared by the hard lines on their face which displayed their determination and concentration. The nurse doing CPR, the charge nurse, the nurse now filling the roll as the recorder, the lone medical student huddling in the corner behind the doctor. My sweep of the room paused, back tracking to the medical student who looked vaguely shocked, their hands clasped in front of them and wringing together, wide eyes fixated on either the patient or the flurry around him I could not tell. I wondered absently as I handed another nurse a flush whether I looked similar, because his expression certainly mirrored my emotions. The recorder asked who was next for compressions, and I looked around the room. No one was coming forward, but I could see the sweat glistening on the nurse's skin as she continued her compressions. I swallowed hard and was about to step forward when the doctor pushed the medical student forward, telling him to grab some gloves.

The medical student looked terrified, but quickly straightened up and put on a pair of gloves. The nurse, when she stopped her compressions, took the time to show him how his hands should be placed before stepping back off the stool to allow him more room looming over the patients' prone body. No one said anything about his obvious hesitation, and I wondered whether he had ever done CPR before. Likely not, judging by how out of rhythm and weak his compressions were. However, as I watched doubtfully, I could see him getting better, the compressions evening out and increasing in strength. This was reassuring, not only that the patient was going to get effective compressions, but that I could improve as well if I was horrible once I started. I had never done compressions outside of on a mannequin, but I knew that sometimes codes could last for 30+ minuets, and that in less than two minutes, the medical student would need to be replaced. So, I steeled my spine, handed off my flushes, and went to grab some gloves. The code

had settled into rhythm now, running smoothly in a way that reflected the one I had experienced before. I was less worried about the effectiveness of the code, but I was vaguely concerned about whether I would do okay at the compressions as I put on my gloves and walked over into place behind where the medical student was doing compressions, wordlessly offering myself up to go next.

I still felt a bit distant, a bit empty, with my emotions almost seeming dulled, but at the very least, the distance was keeping me calm. Just before I was set to switch and start compressions, another doctor entered the room saying "Stop compressions! Stop compressions!". Everyone halted, and the medical student stepped back as the doctor explained that the patient's family had chosen to stop the code. "Time of death…" movement around the room began again, unplugging machines, unhooking IVs, gathering supplies. The medical student returned to the doctor still leaning against the wall, and I stepped back to join the nurse who had come with me from my floor as I stripped off my gloves. "Maybe next time," she said, and it took me a second to realize she was referring to my chance to do compressions, rather than next time the patient might survive. I just nodded, going to the charge nurse to collect the doppler before departing the room with one last glance at the patient, now laying alone and ignored on the Cath lab table as people talked in small groups and gathered supplies.

His open, unseeing eyes are what has stuck with me from that moment, that glance. As the nurse and I left, questions lingered in my mind. Would the code have been successful if it was more organized at first, if all the compressions were actually efficient? Would I have even been efficient in my own compressions, had I done them? Why was the code so disorganized at first? Why did no one else seem affected but the medical student who stood in the corner with their head down? Did the patients' death, the failure of the code, mean nothing to everyone else, or were they just better at hiding their reactions? I hoped that it was the second one. I felt distant, a bit shocked, and a little numb as I sat back down at the nurse's station. Only a few questions were asked, no they didn't survive, yes, it was one of our patients from last night, no, I didn't do compressions, yes, I guess that there is always next time. I sat, quiet, except for direct questions, for quite a while, until I had to rouse myself and put on a better face for the next round of vitals so I wouldn't upset any patients.

I didn't fully clear out of that fog until the next day, when I woke after over twelve hours of sleep. I let slip to my mom that we had lost a patient the night before when I joined my family

for dinner, but waved off her concern, despite my own uncertainty about how I was doing and handling it. Even months later, I can still remember his name, age, what he looked like, the things he said, how much he missed his cat and his family. I am no longer saddened or weighed down by his passing, but I still do question how the code was handled.

There are some experiences that are simply beyond words, the suffering they encompass unable to be wholly understood through the lines on a chart, numbers in a table, or words on a page. The patient's death has made me determined to help make sure that doesn't happen again, especially once I have the authority to run a code myself. Then, I can personally ensure that things run smoothly, that everything that could be done, or should be done, is done to the best of everyone's ability and held to the highest standard. Yet, on the other hand, I do not find any fault with the new grad ICU nurse, because she was inexperienced, and everyone must start somewhere. Instead, I question the silence of the more experienced members present and wonder if time has desensitized them to not care, or if there was something else holding them back. There is no room for errors such as this in healthcare when treating matters of life or death. The responsibility and the burden of being the more experienced members of a healthcare team entails overseeing and guiding care given by less experienced members and ensuring things are done properly, and that the best effort is given. Even in my position, literally at the bottom of the healthcare food chain, I feel that burden when I am the most experienced tech. I understand the responsibility of answering the newer techs' questions, helping them, guiding them, teaching them. I also realize the way that, indirectly, I am responsible for their patients as well as my own, and that should something happen to one of their patients that they are unprepared to deal with, I will step in to fill their place. If one of their patients was to suffer, or deteriorate, due to a misguidance I gave or my negligence or inattention to their misunderstandings or lack of knowledge, it would be my fault, not theirs. This is a common hierarchical structure seen in healthcare, when residents oversee medical students, and doctors oversee residents, when nurses have a preceptor for their first few months as a nurse. It is almost like an apprenticeship. Yet, if I, with my limited medical training and relatively short healthcare experience can see, and feel, and understand this concept, why then, did those more experienced not apply it, did not step up, in the code?

For doctors and other health care professionals, experiences of care too often involve burnout and moral distress. Making both visible to begin addressing them takes up the main

concern of my thesis. Burnout and moral distress swallow a life. Suddenly you aren't going on that shopping trip with friends, you can forget about going to that movie or play. You are too tired to drag yourself out of bed, instead getting caught in a cycle of sleep and work with no time for a break or even to process what happened last shift. Who's going to have a nice relaxing day to yourself? Not you. You are instead going to stew in your stress and review situations over and over again to try to find what you could have done different, done better. A nice dinner with family sounds nice, until you realize that they don't understand when you talk about work, they get uncomfortable when you mention the patient who died. A night out with friends seems like fun, too bad you can't remember it. At least the alcohol numbed the pain for a while. If someone notices, says something, it's so easy to say, "I'm fine", because how could they understand anyways? There is a prevailing sense of frustration, entrapment, and hopelessness that starts to drown you, and the next shift looms with crushing dread. In my research, primarily inspired by and based on my work as a Patient Care Technician, I sought to understand the effects and experiences of one of these challenging topics, burnout, and moral distress in healthcare professionals. I used semi-structured interviews with volunteering healthcare professionals and utilized personal narratives and experiences of participants since the "experience of suffering, it is often noted, is not effectively conveyed by statistics or graphs. The "texture" of dire affliction is perhaps best felt in the gritty details of biography"[15]. I interviewed four healthcare professionals, all of whom work primarily in a hospital setting, and talked informally with many others who did not wish to conduct a full interview. I additionally utilized participant observation through my position as a patient care tech working in the Acute Care Unit (ACU) and Intensive Care Unit (ICU) to help me better understand the experiences and perspectives of those who I interviewed.

When I started this project, I certainly did not expect to later qualify to be one of the participants, although I certainly feel as if I achieved my goal of understanding some of the experience's healthcare professionals suffer through as well as the burden of burnout and moral distress. Yet, despite the impact the participant observation has left, I do not think I would have gained nearly the depth of understanding I have without it. Even though I recognized the need to integrate myself into the medical community to conduct this research, it was not until much later, once I truly felt at home in it, did I realize the extent of what an outsider would have missed.

Healthcare is a very closed and secretive community, rarely letting outsiders see their struggles and instead putting on a mask to present an unflustered appearance for the patients and the public. Connecting with and comprehending the unique experiences of a variety of different individuals builds a sense of mutual acknowledgement and recognition. Even if you do not know the details of each individual's situation, the general understanding of your own, and others' experiences portrays an unspoken "I know." There is reassurance in the affirmation that you are not the only one, that there is someone else there with you even if you feel as if you must have just found the tenth circle of hell. It was this strong sense of comradery built by struggling through the pain and suffering that ultimately helped me understand what the burden and weight of burnout and moral distress can be like.

In this thesis I will be discussing several influential factors to the development of burnout, moral distress, and moral injury to argue for the importance of systemic changes which could be made to improve the medical system not only for providers, but also for patients. After explaining the nature and impact of moral distress, burnout, and moral injury, I will argue in my section on medical education that these issues do not originate from 'nature' but rather from 'nurture'. I then discuss some of the coping methods used by healthcare professionals suffering from moral distress, burnout, or moral injury before calling for further research and attention to the unrealistic expectations patient, families, and society have for healthcare providers and medical treatment. The commoditization and business of medicine is then identified as a large underlying cause of moral distress, burnout, and moral injury with the recent pandemic having only exacerbated these issues.

Moral Distress, Burnout, and Moral Injury

The struggles and pain many healthcare workers face can be difficult to encompass in a single term. How can one word express the depth and severity of the suffering they bear? There has been an ongoing discussion concerning which terms best describe these experiences, including debate on the terms moral distress, burnout, and moral injury. Moral distress has been researched primarily amongst nurses; however, recent studies have branched out to study its presence and prevalence in other healthcare fields, showing that it is a significant, and widespread, problem across many healthcare disciplines[5]. While there is slight variation in the definition of moral distress, generally speaking, "healthcare professional moral distress may be felt when a professional (who has taken an oath to serve the good of the patient) believes he or she knows the ethically correct action but cannot follow that action because of some constraint, whether interpersonal (with colleagues, patients, or families) institutional, regulatory, or legal."[5]. These barriers prevent healthcare professionals from providing what they believe to be the best care possible or doing what is in the patient's best interests. This has obvious detrimental impacts on the patient, resulting in substandard or even harmful treatment. However, it also has very severe consequences for the healthcare provider, often resulting in a "very profound sense of anguish and suffering and a sense of violation of their sense of being a good nurse, good doctor or whatever their role is."[42]. In addition to emotional and mental effects, "Moral distress often affects the whole person. There's a whole set of physical symptoms, that sometimes are overlooked, when moral distress is present."[42]. How this manifests is different and

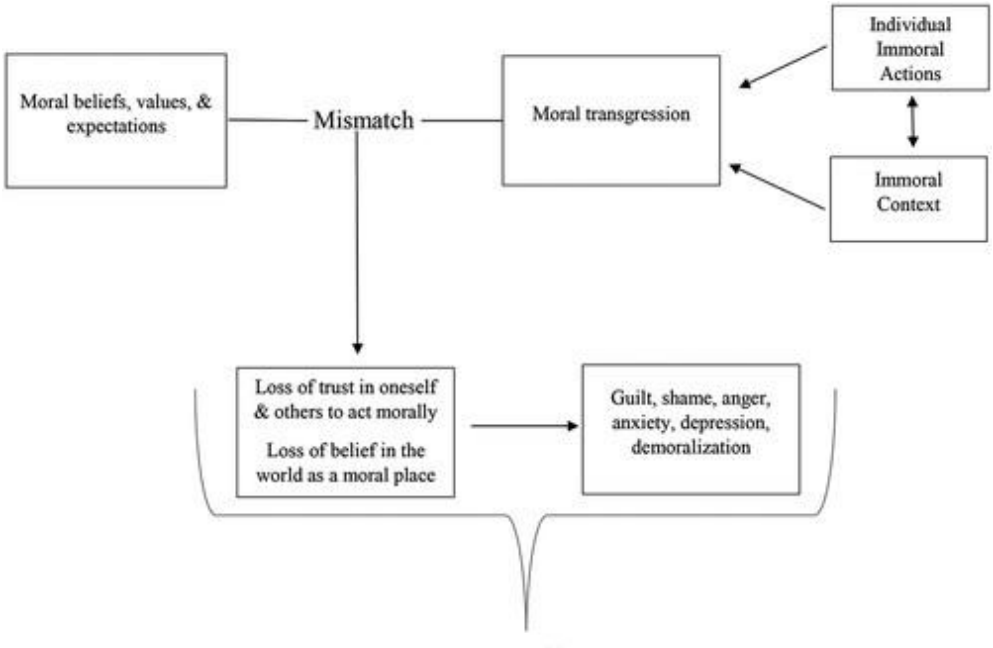


Figure 1: 38

variable depending on the individual. Some providers may become hyper-vigilant or anxious, others feel angry and experience emotional outburst, and some "totally shut down. They are apathetic. They are kind of lethargic. They don't have a lot of responsiveness."[42]. These varying responses and visible external symptoms of moral distress need to be kept in mind: just because someone does not initially appear to fit the mold or show the exact reactions that are expected does not immediately mean that they are not suffering from moral distress.

There are many experiences which may result in the development of moral distress, most of which can be separated into two distinct types. Betrayal based events result from a perceived betrayal from other healthcare providers, the institution, or the system. This might occur when providers witness what they believe to be inappropriate care or treatment, or when institutional and systemic regulations result in less-than-optimal patient care. Perpetration based events, on the other hand, result from the provision or involvement in activities, treatments, care, or situations which the provider believes is morally wrong. For example, medical students are sometimes encouraged to practice skills on unconscious, or even recently deceased patients. The provision of futile care is another common example of a perpetration-based event. These two different types of events can both result in moral distress; however, the response to them usually differ, since "the association between exposure to betrayal-based events and distress is mediated by anger whereas the association between exposure to perpetration-based events and distress is mediated by guilt and/or shame."[54]. Some of the additional causes and contributing factors have been identified to be institutional constraints such as ineffective or obstructive policies[13,4], power hierarchies[2,4], and medical futility[4,5,13].

One of the most common origins of moral distress has to do with end-of-life care decisions and care[42,43]. For example, a patient may have a Do Not Resuscitate (DNR) order, meaning that while medical care is still given, should the patients breathing or heart stop, there would not be resuscitation efforts such as CPR or intubation. However, family members may contest this order. On the flip side, healthcare professionals may believe that a DNR would be in the patient's best interest, however, the patient may not have one for various reasons. This second situation can result in the provision of futile care, where the provider knows that the treatments will not help, and instead may even actively harm, the patient. Yet, the healthcare providers find themselves restrained by various constraints which prevent them from doing what is in the patient's best interest. However, when these efforts fail, they often feel as if they have

failed their patient and may question their ability as a healthcare professional. Ultimately, this can lead to multiple consequences of varying severity, including the erosion of moral agency and integrity[4], burnout[13], or even leaving the medical field entirely.[25]

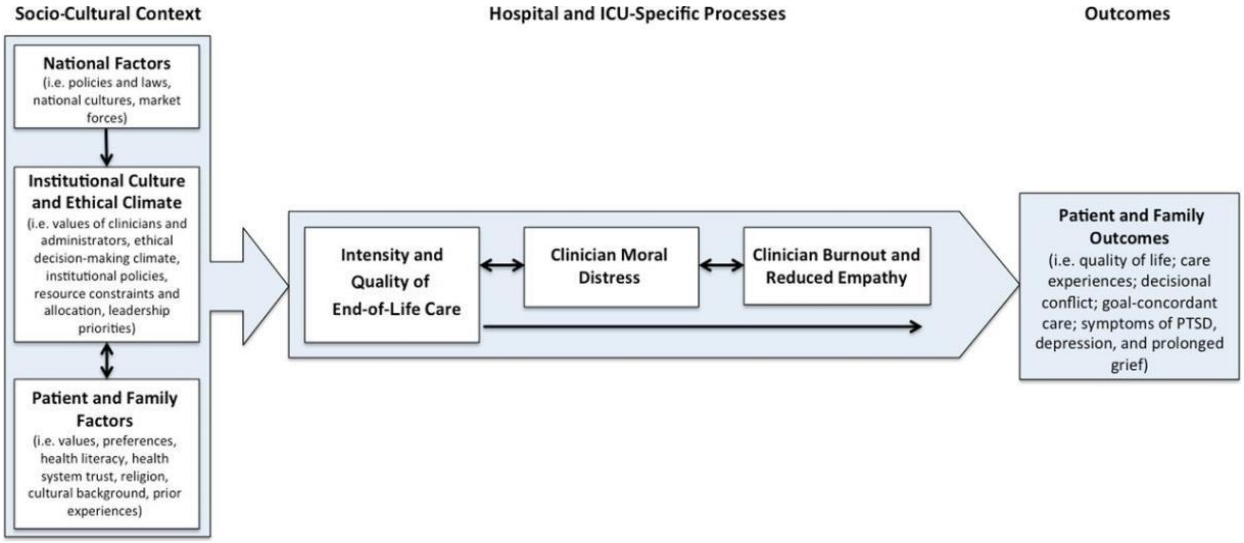


Figure 2: 43

Studies have correlated moral distress with severe burnout[13, 24,43], suggesting that burnout may be a consequence of repeated or severe moral distress. Therefore, moral distress is proposed to be the root cause of burnout. By studying moral distress, its causes, and consequences, interventions can more accurately be made to treat the cause, rather than masking the symptoms. As Drs. Dzeng and Wachter explain,

> "Moral distress' most pernicious expression is in moral apathy—a moral cynicism derived from feelings of powerlessness, which provides a rich medium for the growth of burnout. To address physician burnout, we must look beyond mechanistic explanations, examining why many physicians feel unable to exercise ethical agency that is so central to their professional identity as providers of ethical care. While others have described this phenomenon as "moral injury,"[4] we believe that rooting this discussion within the context of moral distress and ethics provides a valuable framework and tool to understand and develop potential solutions against burnout."[24]

The Moral Distress Scale-Revised is a validated tool used to measure moral distress using both frequency and intensity when calculating the score. Developed by Corley et al. in 2001, it allows for analysis of how often specific morally distressing events occur, and which types of events are the most impactful and cause the highest levels of disturbance. One of the

identified causes of moral distress, medical futility, for example, was shown to be particularly prevalent in palliative care, a field which shows significant connection between moral distress and burnout[13,5] due to the nature of terminal care.

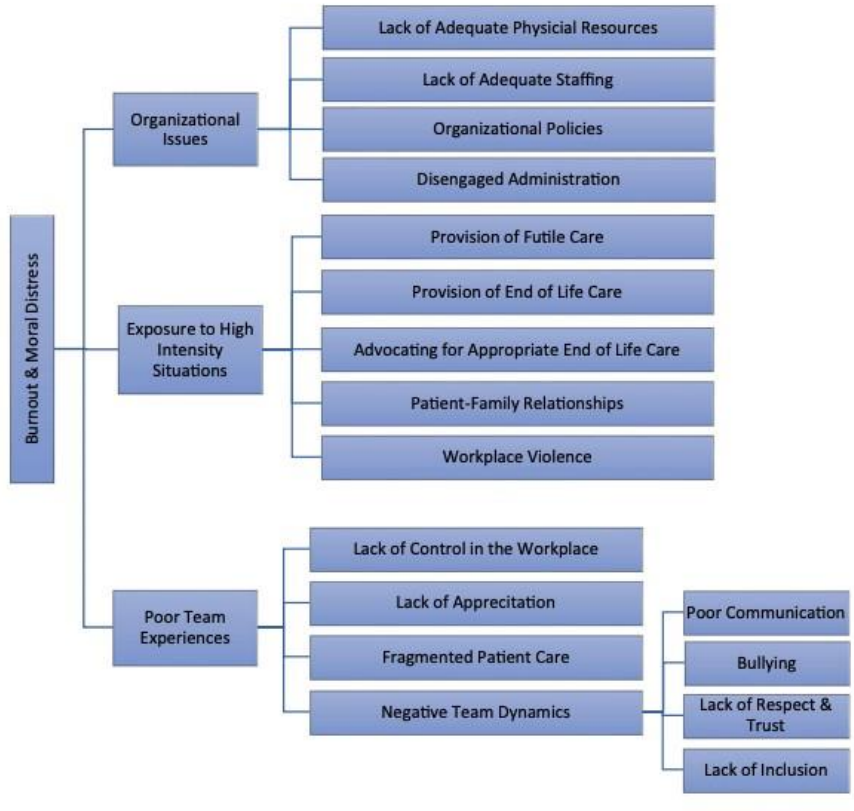
Burnout has received a good deal of attention in recent times both in research and popular media due to the COVID-19 pandemic. The term burnout embodies an experience of depersonalization, emotional exhaustion, and reduced personal accomplishment[6,7,9,10,11,13], which has been plaguing our healthcare professionals since long before the pandemic. There is a complex web of contributing factors identified in previous research that can lead to the development of burnout, including external systemic and organizational factors, as well as internal factors such as perfectionism and a need to please others. Many healthcare professionals have felt trapped by the mounting pressures put upon their shoulders, from longer hours and increased administrative and documentation responsibilities, to insufficient and dangerous levels of staffing and resources, to trying to prioritize patient welfare and care in an increasingly business oriented and profit driven system. Providers may feel torn between these pressures as they are forced to consider a complex web of factors other than solely their patient's best interest when deciding on testing and treatment decisions[57].

Figure 3: 31

These factors pull providers time and attention away from providing quality patient care and instead force them to either sacrifice time with patients, work longer hours, or take work home to complete these extra tasks and respond to the pressures and expectations placed upon them. These increasing pressures and time constraints can detract from patient care, leading to rushed,

disjointed, and disconnected appointments when patients leave feeling unheard, unsatisfied, or dismissed. With an already alarming shortage of healthcare workers, which is predicted to only worsen and become more dire, many healthcare workers already find themselves overwhelmed by the sheer number of patients they need to see, even before the addition of other time-consuming administrative responsibilities such as the Electronic Health Record (EHR). When referring to the EHR, I am not referring to one singular, universal system. Instead, many hospital systems use their own version of an EHR, which fragments patient records between different healthcare providers and makes transferring records a nightmare both for patients and providers. As is understood in the medical field, these "Electronic health records, which distract from patient encounters and fragment care, but which are extraordinarily effective at tracking productivity and other business metrics, overwhelm busy physicians with tasks unrelated to providing outstanding face-to-face interactions. The constant specter of litigation drives physicians to over-test, over-read, and over-react to results — at times actively harming patients to avoid lawsuits." [57].

The EHR is only one aspect of the many pressures put upon healthcare workers which contribute to burnout. Many providers feel as if they are being pulled between competing interests, pressured from all sides, and overwhelmed by the burdens and expectations being placed upon them. Problematic institutional and systematic structures and rules constrain healthcare workers' freedom to make the best decisions for their patients by binding them



Themes causing burnout and moral distress

Figure 4: 37

with red tape which only serves to worsen the time constraints they are already burdened by. These constraints were a common topic throughout my interviews, with one person describing how “it's become more frequent when I need to obtain a particular test for a patient that I feel is medically necessary to be countermanded, or at least denied by an insurance company. And then they have a performance called a peer-to-peer communication. Normally talking to someone who is not in my field and trying to essentially beg permission to do a test that I feel a patient needs, who I've seen, I've taken care of… It’s hard to call this a peer-to-peer relationship when I'm trying to take care of a patient and you're trying to not pay money, because there's no common ground there, and that is very frustrating, and it has become more often than that I have to do this, and it interrupts whatever else I'm doing.” (Interview 1). Organizational and systemic factors of red tape such as this make many providers feel frustrated, powerless, and hopeless, believing that they are unable to make the changes they believe need to be made on such a large scale.

However, there are other facets of this problem which need to be considered, including the high stress and high intensity situations healthcare professions often find themselves in. Providing futile and end of life care have both been identified as central situations which can contribute to the development of not only burnout, but also moral distress and moral injury[42]. Seeing death is hard, whether it is an objectively good or peaceful death or not. With consistent exposure to death and the process of dying, many healthcare providers are also witnesses to the pain and distress that may be part of dying, and the grief felt by those who have been left behind. Many healthcare providers are faced with the realities of their and their loved ones own human mortality; made to confront both the fragility and the resilience of life. This can be stressful and difficult to process, even before factoring in how healthcare workers witness violent, tragic, or painful deaths which only serve to make the situation more intense. These factors contribute to the extreme emotional and mental difficulty of providing end of life care.

The symptoms described by burnout are both applicable and prevalent among medical professionals. Physicians were at twice the risk for burnout when compared to the general population[25], and over 40% of those surveyed also reported depression and suicidal ideation, specifically tied to the development of moral distress from working in healthcare.[19,46] There has

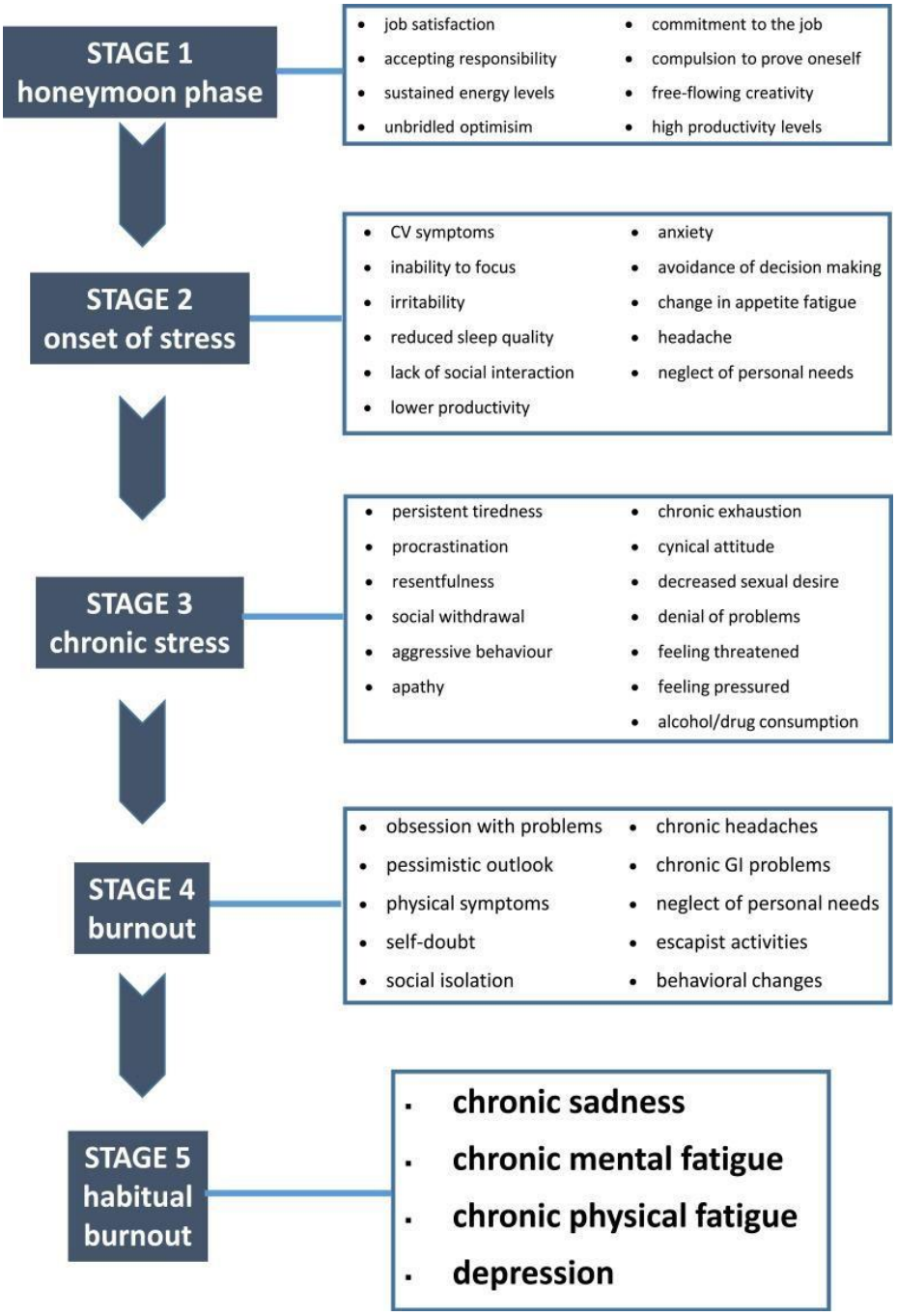


Figure 5: 31

been significant research exploring the consequences of burnout, including suboptimal patient care practices[9, 24, 25, 40,41], substance abuse[45], health problems, depression, and suicide[10,11]. Additionally, "burnout is associated with 2-fold increased odds for unsafe care, unprofessional behaviors, and low patient satisfaction. The depersonalization dimension of burnout had the strongest links with these outcomes; the association between unprofessionalism and burnout was particularly high across studies of early-career physicians."[41]. The rate of physician suicide is significantly elevated compared to the general population[8,11], a clear indicator that something is wrong in the medical profession.

However, there has been pushback on burnout's use from medical personnel and other professionals, who claim that burnout implies that the subject is feeling overwhelmed by their

job demands and therefore is a condition which is the subject's own responsibility to fix[7].The term suggests that the problem resides in the individual, and therefore they are in some way deficient. This places blame on the medical personnel who are suffering these symptoms, implying that they are in the wrong for their suffering, or that they are at fault for allowing such human reactions. For one of my interview participants, "the term burnout implies that I can't handle it, or the person can't handle it, which is, that's not the case whatsoever… we're not going to say burnout, because that implies we are the problem, and we're not the problem." (Interview 1). The term burnout is also correlated with the symptoms experienced by the medical personnel, rather than the injurious process or the underlying causes of aforementioned symptoms. This correlation with symptoms leads to institutions focusing interventions on physician resilience and wellness, rather than addressing the cause of the distress[7]. However, these interventions are inherently limited, because by only addressing the symptoms, rather than the causes, there is only management of the symptoms, rather than solving the underlying problems and preventing further distress. The symptoms remain, reappearing, hovering just under the surface. The added stress of trying to fix themselves due to the failed belief that they are to blame for their symptom's likely only compounds upon the issue.

In contrast to moral distress and burnout, the term moral injury has only recently been introduced into the healthcare field, and there has been significant debate since on whether the term is too close or synonymous with moral distress, which has been used in the medical field for far longer. The term moral injury has previously been used in military personnel to describe the perpetration, failure to prevent, or witnessing of events which contradict deeply held moral beliefs and expectations[12]. Wendy Dean, MD and Simon Talbot, MD suggest the term moral injury best describes the epidemic of physician distress[1]. In the context of healthcare, the moral belief violated is the oath taken to put patients' needs first, to do no harm. For example, one of my interviewees described "outside forces that are impacting my ability to take care of a patient and what ends up happening is, I feel there's a certain thing I need to do for my patients, either time wise, or testing wise, to take care of them, and I'm being forced to curtail that or sacrifice other things, and I think that does feed into the feelings of the moral injury." (Interview 1) However, the difference between this moral injury and moral distress can be difficult to discern. Current research has distinguished and validated the relevance of both of these terms, with

> The main difference between moral distress and moral injury is that moral distress represents a form of situational problem (due to the external or internal constraints), while moral injury represents an experience of the problem that results in a long-lasting change to an individual's sense of losing hope, trust, integrity and so on. In fact, moral distress represents a challenge which may be relatively easy to prevent, if the external constraints are removed and the internal constraints mitigated by reinforcing and increasing moral resilience directly increasing the moral sensitivity level and quality of care provision.6[0,61] On the contrary, moral injury results in long-term emotional scarring or damage contributing to permanent numbness, malfunctioning and social isolation, which may on the other hand result, if treated in time, in a posttraumatic growth.[56]

Therefore, while both moral distress and moral injury involve the internal conflict between one's morals and what they believe to be the correct course of action, moral distress results from the feeling of being constrained or trapped by organizational or systemic factors whereas moral injury results in trauma from atrocities that violate their beliefs such as in situations involving violence or death.[26]

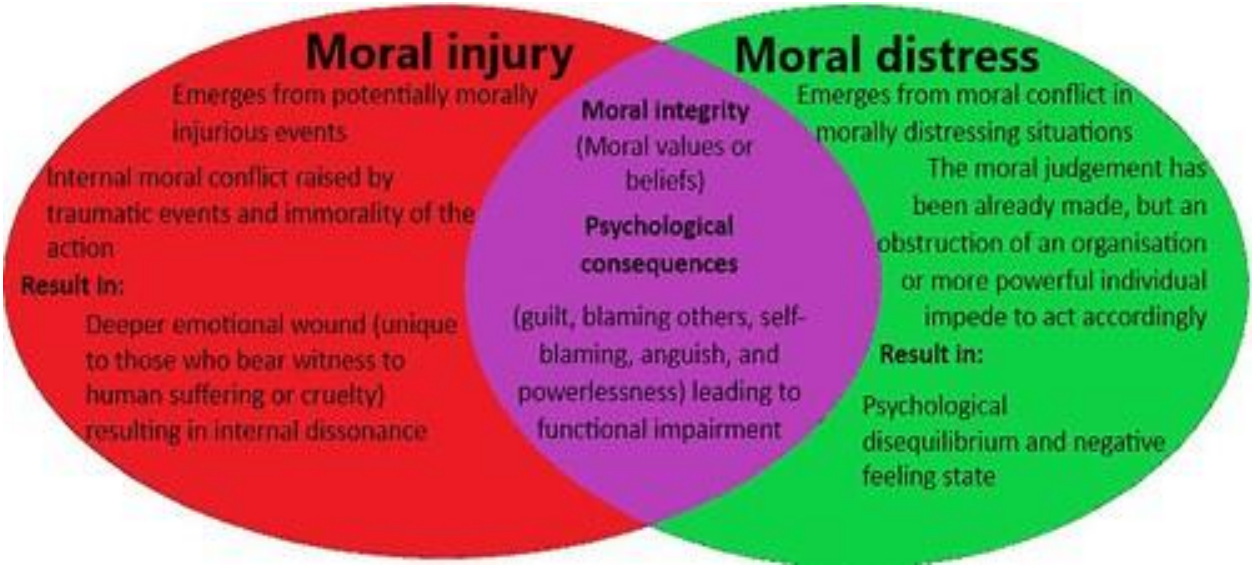


Figure 6: 56

Additionally, despite the involvement of trauma and long-term emotional scarring, moral injury should also not be confused with Post Traumatic Stress Disorder (PTSD), as "The PTSD symptom profile included exaggerated startle reflex, memory loss, flashbacks, nightmares, and insomnia whereas the moral injury profile included guilt, shame, anger, anhedonia, and social alienation."[54]. Considering many situations healthcare workers experience may be the result of

violence, a significant portion of their patients may die, and sometimes treatments may be painful, or even cause more harm in an attempt to help the patient, the opportunity for morally injurious events is bountiful. While the applicability and aptness of the use of moral injury in the healthcare field has been verified and defended by research after many extensive debates, additional research still needs to be done to better understand the relationship between moral injury and moral distress. Primarily, there should be a focus on when and how significant moral distress may lead to the development of moral injury.[56]

Medical Education

One of the first, and most prominent, times when moral distress and burnout are apparent is throughout medical training and education. Medical training may even be the peak of when distress is at its most acute, in comparison to the other stages of a physician's career.[48] This was echoed multiple times throughout my interviews, with one participant saying that "residency is by far the biggest burnout stage of any physician's life" (Interview 3). These disproportionately high rates of burnout and distress indicate that the "training process and environment contribute to the deterioration of mental health in developing physicians."[47]. Working in the medical field is a high risk profession[47], not only physically, but also mentally and emotionally. The origin of "medical student distress appears to be a "nurture" rather than a "nature" problem, indicating that changes in the learning environment are needed."[47]. Therefore, focusing on individual factors is not enough, and these strategies can even be detrimental as they "overemphasizes selection of "resilient" individuals capable of navigating a dysfunctional training process. Instead, we should address the problems within the learning environment that precipitate burnout in highly talented and dedicated individuals with the traits desired in future physicians. [47]. The exposure to morally distressing or injurious events starts early in medical professionals' careers before they even make it through training. Students emerge from training fundamentally changed, as over the course of training "you have to learn how to physically deal with that much stress, which is super hard, you can't do it and come away whole" (Interview 3). Medical students often sacrifice their sleep and health as they struggle not to buckle under the weight of the stress, with some of my interviewees even comparing medical training to bootcamp and indentured servitude. During residency, they are often used as free labor, even as

they are paid horribly. Debts acquired throughout medical school hang over their heads. These debts serve as a way to control the residents, ensuring that they are not able to pay off the debts due to the substandard pay, and threatening to fire them at any slight offence. For one of my interviewees, the looming dread of getting fired hit too close to home when a fellow resident in their program was fired. It left everyone feeling "terrified because that guy's life just ended. You know, I mean it literally, his life was over, he was stuck with $400,000 of debt, and he wasn't going to be able to get another job." (Interview 3).

With such control over the residents' lives and future careers, residency programs, and specifically the hospital systems in which they are situated, can take advantage of residents' labor, and make a larger profit. This exploitation creates a very high stress environment, where any small mistake, even if the resident is not at fault or it would not have even been mentioned if they were an attending physician, might mean getting fired and ending their medical career. Therefore, "it doesn't just become a high workload, it becomes a high-risk environment and it's a high workload. So now you have a lot of work you have to do at an unrealistic standard." (Interview 3). The effects of burnout and moral distress medical students and residents experience impacts their whole lives, with the reality being that "everyone gets depressed, everyone gets stressed, everyone gets hyper vigilant. I mean, it's just the worst feeling, and most of the people in my program are like that. It's just like your drive home from work, you think about all the things you might have not done right or might have not done that you needed to do." (Interview 3). The worry persists even after the event has passed or after the environment has changed. The strict hierarchical nature of the medical community only adds to the power which institutions, administrators, and older medical professionals can wield over the residents and medical students. Most people entering the medical field have never been exposed or embedded in the community before, and this high stress, high-pressure, high-risk experience is one of their first fundamental introductions to practicing medicine.

Over the course of medical training, the students are exposed to a distinct, closed, community which is embedded with not only problematic systemic factors, but also filled with disillusioned and cynical healthcare workers. When medical students enter the medical community, they encounter a complex web of encounters and situations as they acculturate to their new environment. Throughout this process they engage in the "hidden curriculum [38], observe and participate in dynamic interactions at different levels, and become aware of power

differentials within the medical hierarchy." [50]. There is an odd dichotomy which shadows medical education, where medical students are taught to take care of themselves and taught how to be healthy yet are surrounded by examples of their peers and mentors doing the opposite. This shows the difference between the formal and hidden curriculum, by which the process of socialization and acclimation to the medical field often directly contradicts the teachings of the medical students formal training. Additionally, medical students are also under significant academic demands and experiencing a lot of stress in addition to the harassment and discrimination[49] prevalent in an already suboptimal learning environment[47]. The strict hierarchy of power within the medical community contributes to the discrimination and harassment. This harassment, which is widely experienced by most medical students but also largely underreported[50], can lead to detrimental effects on the student's mental health, as well as low career satisfaction, which sets the scene for the rest of their careers[49].

There are physicians and mentors who seek to make the experience of medical training better in an effort to reduce the effects of burnout and moral distress. One of the main ways identified to help this effort is to reduce the amount of work hours residents and medical students have. In my interviews it was emphasized that "we have to break that cycle and newer physicians, newer practitioners, are taught you're not going to work 36 hours in a row." (Interview 1). Residency work hours were also limited in 2003 to no more than 80 hours per week or 24 consecutive hours. This shows that change can be made, and that there is hope to save the medical education system and those students currently suffering within it. Having supportive mentors is also crucially important in medical education, whether that is good preceptors for nursing students, or good attendings for medical students. These mentors offer insight and guidance based on experience and more in-depth knowledge of the medical field to help students find the right path for them to succeed. Originally, one of my interviewees "wanted to be a critical care doctor, and an attending convinced me that you don't want to do just that, it'll burn you out. You need the pulmonary side, you can switch back and forth, and he was right." (Interview 4). Mentors can have a big impact on the experience and trajectory of their students, and this influence can change future lives as it is put into practice by the students, and later may be passed on to others. One of my interviewees hopes to "find some sort of balance, and how to teach that. They [the medical students] will also go forward and be good, well rounded, clinically sound physicians and I do think people are working on finding that balance. But I think the older

generation needs to take a cue from the younger generation. You can't work all the time; you can't kill yourself." (Interview 1). One of the lessons I have heard repeatedly since I started working in healthcare is that you cannot pour from an empty cup. Meaning, in order to take care of others, you first must take care of yourself. This can be difficult for many medical students to achieve, as most of them went into the medical field with the primary intention of helping others even at their own expense, and this need can run deep as shown by medical students in a study on moral injury that stated that "having more medical knowledge and a clear sense of a job to do on scene helped reduce their distress at the time."[61]. While providing guidance on ways medical students could help in emergency situations may not solve the systemic and organizational issues leading to the development of moral distress, moral injury, and burnout throughout medical training, guidance may reduce the strain felt by the students and pacify their need to do something. As Drs Panagioti, Geraghty, Johnson, et al. explain,

> "I am more able to see the limits of what I can do, to accept those limits, to accept my own vulnerability in these situations and to help let go of the burden we put on ourselves, that we are supposed to fix this problem. Many times, these situations cannot be fixed. Accepting that because we can't fix it doesn't mean that we failed. We've actually been able to do good by at least exerting some effort to try to address the problem, instead of constantly feeling like "I have not done enough," "I failed." That accumulates over time. Eventually, you start feeling really bad about your role, yourself, your profession. That's what leads people to leave the profession, whether it's nursing, medicine or whatever it is."[42]

An important concept which many healthcare workers struggle with is that they might be able to do more, or should have done more, if they just sacrificed something else. The things sacrificed are usually what helps keep the healthcare workers healthy, such as having time off. Many providers I interviewed said it is just as important as it is difficult for many healthcare workers to "actually understand that it's okay not to be at work, that I'm not letting someone down." (Interview 1). Providers may feel guilt when taking time off, as if they are not doing enough and they should instead sacrifice more of their time, and therefore their health and wellbeing, in order to see more patients, "you learn how to not sleep is another big one like you, you get the ability to just stop." (Interview 3). With the increasingly dire shortage of healthcare workers, particularly physicians, there are always more patients that need to be seen, and more people than there are spots. The World Health Organization "estimates a projected shortfall of 18

million health workers by 2030, mostly in low- and lower-middle income countries"[23] This shortage has only been exacerbated by the COIVD-19 pandemic, with many healthcare workers either dying or leaving the medical field[19]. They strive to continually improve their patient care at the expense of having down time where they are not engulfed in the medical field. This leads to overworking, as one of my interviewees was familiar with. They said that they often "feel like I need to do more, and I feel like I can't, and that can be frustrating and that can lead to moral injury because, it's the circumstances of what's going on, are not allowing you to do what you set out to do when I was younger… But, if I kind of give up then I can't help anyone, so I've got to balance it, I've got to have time for me, I've got to have time for my family, but also have to have time for the patients." (Interview 1).

Coping Mechanisms

There is a wide and various range of ways that healthcare workers cope with their perceived failures, and the things that they have witnessed and done[42]. They can range from healthy to unhealthy, good to bad, and "everybody's got both. [Although] The healthy ones are few and far between." (Interview 2). A common coping mechanism which reappeared throughout my interviews was the use of dark humor. Often, it is accompanied by "Sarcasm, mostly cynicism. That's what most people do, nothing healthy of course." (Interview 3). The use of this slang has multiple and varying purposes, including breaking tension and deescalating, bonding with other members of the healthcare community, sharing a sense of understanding, and cope with the strong emotions from the suffering, the dead, and the dying that they are surrounded by.[18] However, despite its uses and benefits, at times it may be "inappropriate humor for the situation, you can talk to anyone who works in medicine in a hospital. You never want the patients to hear you, but it's the way we cope." (Interview 1). Amongst other uses, people utilize dark gallows humor to help them cope with and escape the realities of suffering and death which they witness daily as part of their job.

This dark humor is something I see almost every night that I work in the hospital, and it follows you once you leave it as well. Friends and family start to look at you oddly after you make jokes, and the only people who find your humor funny are coworkers. It can feel distancing, isolating you from loves ones and those who do not work in healthcare. Many healthcare workers "described feeling isolated as family and friends are not able to comprehend a

typical workday"[37]. These coping mechanisms are used to help process and live with the daily horrors many healthcare workers experience yet are often frowned upon and judged by others. Over time these coping mechanisms can also change the worldview, outlook, or disposition of healthcare professionals "because they're not very positive coping mechanisms, but you just kind of become a more bitter person. (Interview 3)". This embitterment has contributed to feelings of detachment and cynicism[42] which can accompany the depersonalization and emotion exhaustion which characterizes burnout.

Additional maladaptive coping mechanisms include using alcohol, sleeping pills, prescription medications, and tobacco[26]. Substance abuse of varying types, with both legal and illegal substances, is prevalent in burnt out healthcare providers, and is a sign of uncontrolled or mismanaged stress[42]. Alcohol is a common vice, however, studies have "found that while emotional demands were predictive of drinking behaviors, the relationship was contingent on the level of psychological detachment from work during non-work time suggesting that recovery experiences were important to mitigate the use of alcohol. Thus, the relationship between moral distress and maladaptive coping may be offset by other coping mechanisms."[26]. Therefore, the introduction, promotion, and consistent use of positive coping mechanisms may help to mitigate the use of more maladaptive mechanisms. However, the utilization of these individually targeted interventions, such as leaving work at home or increasing exercise, while helping to mitigate the symptoms of burnout and moral distress, do

Table Personal and workplace coping strategies

Personal coping strategies	
Constructive	**Destructive**
Leaving work at work	Alcohol/substance use
Exercise	Excessive spending
Family and pets	Excessive eating or overeating
Maintaining a work-life balance	Shutting down emotionally from others
Hobbies	
ICU workplace coping strategies	
Constructive	**Destructive**
Humour	Negative chatter about colleagues
Socializing outside of work	Bullying
Communication with families	Shaming
Talking with peers	Excessive eating or overeating
Fostering a supportive work environment	Detaching from patients
	Withdrawing from coworkers

ICU = intensive care unit.

Figure 7: 37

not help to prevent their development. When used in concert with institutional and systemic efforts to change the root causes of burnout and moral distress, these positive coping mechanisms can become an important piece to a crucially needed support system. One of the positive coping mechanisms which repeatedly appeared throughout my interviews was "having a sounding board, somebody that understands, because I can, I can tell my husband about my crappy day without violating HIPAA and whatnot, but he's not going to understand how hard it was for me to walk from this room, to this room, to this room, and not be able to complete a task because I've got three crashing ICU patients in an ER with no support because the ICU is under staffed. So, when the ER charge nurse comes to me and says "hey there's something wrong with this. Can you look at it?" I'm now the expert. But I'm not, I'm not an expert. I'm trained but I don't claim to know everything. Promise I don't. So, that would be your healthy one." (Interview 2). Healthcare professionals often "talk to each other about how hard this is, and manage the stress of dealing with grieving, and worried, and scared families… we kind of support each other through that we talked about it in the break room." (Interview 4). Talking through the situations, the patients, the experiences that they witness and participate in can help healthcare workers cope in a constructive manner, where they process, think, and learn rather than suppressing, obsessing, or shutting down. Having someone to talk to who understands what you are going through, the pressure you are under, helps you feel not so isolated or so alone. The experience of working in healthcare is something that changes people, and the lessons that they learn stick with them for the rest of their lives. Once they have been integrated into the medical community, there is a sense of shared understanding and commodity which binds them to the rest of the community.

Unrealistic Expectations

The pressures that medical professionals face come from many directions, not only from the broken system. One of the least recognized, yet most indirectly impactful factors which contributes to the development of burnout and moral distress is unrealistic patient, family, and societal expectations. However, despite its prevalence and large impact, "addressing patient expectations—the No. 1 stressor—and providing solutions to deal with it falls way down on the list of priorities for those same physicians, behind addressing other stressors like administrative overload and work-life balance." [64]. The most direct and prevenient sources come from the

“patients and their families whose medical experience comes from the TV, watching Grey's Anatomy.” (Interview 1). This struggle of trying to help patients and their families understand the realities and limits of medical treatment was a passionate topic in all of my interviews. There is a disconnect between the medical field and the general public, contributing to the distorted “public's perception of what we can and can't do… everyone thinks that medicine should be kind of a Burger King Model.” (Interview 1). The representations and depictions of medicine which the public is primarily exposed to is in the form of TV shows or movies, and are often highly dramatized, and unrealistic. However, when entertainment is the main model that they have been exposed to, that is the sort of treatment that patients expect. Someone getting whisked up to a hospital room only minutes after arriving to the hospital is convenient for the viewers of a show, after all, no one wants to watch the characters sit and wait in the waiting room. The expectation that they will therefore get immediate treatment and a room if therefore coloring the patient’s perception of their treatment.

When this expectation does not meet reality, they may become upset, demanding things they believe they need or deserve, throwing accusations at the medical professionals, and even sometimes becoming verbally or physically abusive in an attempt to force reality to conform to their expectations. People want medical treatment to be simple, easy, fast, painless. They “expect you to be a wizard and fix all the problems... they do whatever they want. And then they think we're going to give them a pill to fix them.” (Interview 3). Unfortunately, this is not reality. Medical treatment is often messy, it can be painful, it might even make the patient worse before they get better. A magic pill would be amazing, but a single, simple pill is often not the reality of medical treatment. These unrealistic expectations place further strain and stress on healthcare professionals as they attempt to provide the best treatment that they can even while facing accusations of lying, or not doing their best. With the medical community being so closed, “people that don't see it every day don't understand that it is there, and it is bad. And so, they're not willing to do the things to keep from getting in hospital. It doesn't hit them, and we can't show it to them.” (Interview 2). They do not realize the realities of the healthcare system, medical treatment, or the healthcare workers who are trying their best to work within a broken system. Yet, there is also a stigma surrounding healthcare workers seeking medical treatment, especially for mental health, which only further encourages them to hide their struggles and pain

from the world around them, and often denying themselves help in the process. As Dr. Kalter explains,

> "culturally, the respect for the medical profession has dissipated over the last several decades. We expect cure, we vilify mortality, and we demand a service line, simple fix solution to very complex medical problems. We expect doctors to work longer hours and see more patients in order to align with a business model of medicine that cares more about patient volume than patient care. We feel like pawns in a system that seems to care only about budgets and not individual patient benefit. We expect medical professionals to do more with less every single day, while navigating the same broken healthcare system as the patients under our care." [63]

Some of the most difficult circumstances that healthcare providers are forced to conform these unrealistic expectations is during medical emergencies or when deciding end of life care. They have to try to bridge such a large chasm, to try to help the family understand the reality while being professional yet empathetic, stoic and in control yet comforting and caring, all while under extreme time constraints. This relationship can be very difficult to balance, especially when the patients or family "don't know what's going on, and they have their hopes, and people get mad, and they'll… you hear about doctors getting sued for that, that kind of stuff." (Interview 3). The fear of verbal or physical violent, or even patients suing or trying to ruin the healthcare workers careers compounds the stress and worry they experience in such situations. There are the pressures of trying to help the families understand, making sure to comfort and reassure them, and strain of the lingering fear of the potential repercussions, all while trying to stay calm and professional. This can be particularly challenging when working with "families that don't want to let people die. You do what they want, but you try to explain to them over and over and over, and you say, 'look this guy is not going to get better. We can keep doing CPR, we've been going for an hour and nothing's working.' And they say no, do it, and morally or ethically, you know that this is not okay." (Interview 3). The healthcare workers are then either forced to continue providing what they believe to be futile, unethical, and unmoral treatment, or face a lawsuit and possibly losing their license if they refuse. There seems to be no way for the healthcare provider to come out of this situation unscathed. Either they participate in the useless violence and prolong the patients suffering, or they face the wrath of the family and face the potential loss of their career. Dr. Kalter continues by showing how

> "When perfection isn't achieved in the outcomes we have come to expect, we blame and vilify our medical professionals. Visible, easy to see on the front lines, doctors and nurses have become the scapegoats for the failings of a larger system and the relentless expectations of a cultural demand impossible to meet. And like all people who are blamed needlessly for things outside of their control, they often break under the weight of an unreasonable amount of misplaced blame. Medical professionals are leaving clinical medicine is droves, and of the ones that stay, they do so in an epidemic of suicide in the medical profession." [63]

What happens when a family claims that the patient should not be DNR? What if the patient has been determined to no longer be able to make their own medical decisions? If the patient previously signed a DNR while mentally competent, but is no longer competent, should the medical proxy be able to rescind the DNR? On the other side of the coin, what if a healthcare provider knows that resuscitation efforts will not succeed, or will only prolong the suffering of the patient, yet the patient does not have a DNR? Should futile, possibly harmful, and painful care be given anyways? Should the preventable suffering and violence of resuscitation be inflicted upon the patient? However, without the DNR, legally providers are required to become practitioners of pain rather than healing. For someone who likely went into the medical field with the dreams of helping others, what impact does this have on them when they have to instead hurt those they swore to help?

There are numerous systemic factors which challenge healthcare providers ability to respect patient autonomy while maximizing patient welfare, such as when providers feel the need to provide futile or even harmful care due to the absence of an advance directive, DNR, or family members wishes. The resulting participation in futile care results in moral distress[24]. The impact of these scenes was very obviously shown throughout my interviews, with the repeated appearance of tears as we discussed medical futility. One of my interviewers got choked up, saying,

> "Oh Lord, have mercy. It's heartbreaking. [medical futility] Especially in a climate where a lot of hospitals are still not allowing COVID visitation. And there's no way to show family what we're seeing, and how we're trying to do whatever we can for them, you know they don't have an accurate picture. Just like the people that are not medical that don't get COVID at all. When you're trying to explain to a family member that their parents or their mom, dad, sister, brother, whatever, their, their, their loved one is suffering. And the interventions that are standard are not working. And there's not a lot of things that we… like, you can't win. One organ system goes, it effects every other organ system and when you get to a certain point in time you have nothing that's working

> left anymore. And when you've got a patient that's intubated and sedated and their livers failing and they're yellow and purple, or yellow, highlighter yellow, from jaundice because of liver failure, and then they go into renal failure and have to require dialysis, like the medical futility of actually doing all the things we're doing them but are they doing nothing for the patient." (Interview 2)

Many families do not discuss end of life care, and death can seem stigmatized with how much discussion about it is avoided. This leads to family members not having a clear or definite idea of what the patient would have wanted, and this uncertainty contributes to the stress and grief of having a family member in this situation. This stress is only exacerbated when the family does not understand the realities of the patient's condition or the treatment options available. Sometimes the family, even after being educated on the futility of the treatments, will still refuse, not wanting to be the one to pull the plug. These are difficult, heartbreaking situations, which could be mitigated by having clear, open discussions about end-of-life care with each family member and making advance directives to provide guidance on what treatments and care should be performed. This proposed solution therefore alleviates the uncertainty and relieves some of the pressure of making these hard decisions from the family, letting them have the time and space to grieve without these other contending factors.

The Business of Medicine

Healthcare has become a very commoditized system in which businesspeople and organizations seek to line their pockets and make more money, often at the expense of the patients and the healthcare workers themselves. Unlike other countries, health and medical treatment is not a constitutional right in the United States. The increasing "consumerization of medicine has challenged the physician's imperative to act in a patient's best interest (beneficence). Physicians are buffeted by conflicting pressures to reduce costs in some settings while in others, to raise institutional or individual incomes by prescribing or referral practices."[24]. Moral injury and moral distress originate because there are too many pressures or factors, such as the profit oriented medical industry, getting in the way of health care providers being able to provide the best patient care possible. For example, the EHR, while originally designed to help with communication between different health care professionals to benefit the patient, now acts basically more like a glorified cash register. Most components of the EHR don't

help with communication between providers, “a lot of what goes into our documentation, and the medical record has nothing at all to do with taking care of a patient. It is a bill of sale.” (Interview 1). Instead of focusing on improving patient care, it's more focused on how to enter charges, how those charges translate to insurance, and how the insurance then pays the hospital or the clinic. Another one of the problems with the EHR is the enormous amount of time these administrative tasks take, therefore increasing the healthcare professionals’ workloads even further. One of the largest contributors to “moral injury across the board is just the bureaucratic BS that is thrown on us [healthcare providers].” (Interview 1). The EHR is essentially loaded with a bunch of details not needed for the communication between providers or the patient’s wellbeing that they are forced to complete it despite its inadequacy at fulfilling the job it was set out to perform. For resident physicians or nurses, they might even lose their job or end their career if they don't complete those sections of the EHR. However, those sections take up more time away from direct patient care, still not benefiting the patient. Instead, these sections serve to keep track of charges, getting ridiculously detailed and nitpicking for every single little thing to squeeze out every last dime possible from the patient.

Not only do these healthcare organizations exploit the patients through methods such as the EHR, but they also exploit healthcare workers. Administrators can say they have to fill out all these extra items in the EHR to meet these certain statistics and these certain numbers. Healthcare providers are often pushed by administrators to meet certain numbers or to make a certain profit rather than putting the patient first. For many healthcare providers, one of my interviewees included, this prioritization of profit is “aggravating, it's demoralizing, because no matter how many times we tried to justify why this patient needs this, the numbers come up more important.”. (Interview 2). Therefore, the administration, the organization, and the healthcare system all put these numbers and the profit before the patient while the provider is doing their best to put their patient first and provide the best care possible in a system which is deliberately trying to do otherwise.

> “There is a lack of response from the administration side of healthcare to provide solutions at the bedside. When they haven't been at the bedside in years. Because their focus is numbers and percentages, and unfortunately money. And our focus is the patient in front of us, so I don't really care about any of those numbers. I want my patients to have a solution and that's my focus and it's my license. And I think that they forget that a lot. And their solution is 12 times more difficult or unnecessary. I do not like having to

> sacrifice my time at the bedside with patient care, and at the sacrifice of my patient at times, to talk about numbers and meetings, and why we have to do it this way because so and so said so. Because my, my direct concern is the patient sitting in front of me, and that's more important to me than whatever number is important to them." (Interview 2)

Thus, in medicine today, with the administrators and healthcare corporations in conflict, healthcare workers are fighting the system in which they are placed. This can be extremely difficult, especially for resident physicians or student nurses who don't have as stable of a position since they can just be fired on the spot. One of my interviewees says that the "biggest informal lesson was even if something's right, you just shut up and let them do whatever they want, otherwise you get fired, which is not normal for me. Normally I speak up about stuff, that's how I always was." (Interview 3). The debt that they accumulate during their medical education hangs over their head like a threat which says 'if you do anything that I don't like I can just fire you and ruin your career and leave you with all of this debt and it will just ruin your life' and it's a way of controlling these health care workers to ensure that they do what the administrators want them to do rather than what they feel is necessary. Therefore, administrators can push them to see more patients in less time to make more money, so instead of getting 15 minutes with every patient, they now only have 10 minutes. This pressure only adds to the long list of factors which take more and more time away from patient care. However, this directly contradicts the reason most healthcare workers originally went into medicine; to take care of others.

Insurance will also fight to not have to pay or to not cover necessary treatments or tests, such as when a doctor will say 'I want my patient to have this medicine, or this exam, or this treatment, or this test" and they will then have to defend their professional decision to someone from the insurance company who might not know anything about their field. My interviewee was adamant that they "don't want a businessman telling me how to do my job. And right now, it's feeling like there's especially a lot of insurance companies creeping in upon the medical decision-making component" (Interview 1). It's usually another physician but this might be a rheumatologist talking to a family medicine physician, they might not know the specifics, it might not be their field. As Dr. Dzeng explains,

> "The emphasis on healthcare as a business rather than a human right has created a cultural milieu that works against patient welfare. Examples abound. From the skyrocketing costs of critically important

> medications to the unaffordable costs of insurance and high out-of-pocket payments, physicians work within a system that regularly violates the Physician's Charter. Physicians aware of the social determinants of health regularly battle the effects of a gutted social safety net, resulting in egregious disparities in the quality of care. They feel powerless to address systemic threats to their patients' health, such as inadequate medication drug coverage resulting in a preventable stroke, inadequate screening resulting in a delayed cancer diagnosis, and a lack of housing and food resulting in markedly worse outcomes in people who are homeless."[24]

Inadequate social nets and support systems, while perhaps not directly linked to medicine and healthcare, make it difficult to treat patients, as they return over and repeatedly for the same issues because healthcare workers cannot solve the cause of the problems when they originate from environmental or social factors. It is difficult to watch these patients who just can't get better because of the system that they are trapped in.

Often the people who own and run the hospitals, and the people who make healthcare policies, are "most likely someone who doesn't know anything about what you [a healthcare provider] are doing, they have no medical background." (Interview 1). So, the policies that are developed and put into place are often from the perspective of a businessperson, or a politician, or a lawyer and it's not actually viewed through the lens of the healthcare provider. For the healthcare workers, they deal with these policies and with administration "where if they're doing something stupid, you just kind of have to go along with it. And if you don't, then you are at the mercy of the system... And that's a big part of it [burnout]. The administrators who don't know anything, or how anything works, or what makes sense. They just call it like they want, and you just got to do it." (Interview 3). When these policies are implemented, they might cause unforeseen issues or not function as intended, and this gap in understanding contributes to the formation of policy barriers and red tape which obstruct healthcare workers efforts. Most businesspeople want health care to be a one size fits all model (interview 1), so that they can make a program, map or diagram requiring certain steps to get to an end goal or conclusion. However, these maps can get in the way of providing care when it means that unnecessary steps are having to be taken. Not all patients can fit the model, and health care is very individualized accordingly. Every individual is different, what every patient needs is different. Therefore, the medical care that they receive needs to be individualized. However, the business model does not

allow for the necessary flexibility, instead there is a rigid structure that doesn't allow physicians to individualize the care so that the patients get specifically what they need.

The Pandemic

The issue of burnout and moral distress in healthcare professionals was here long before the COVID-19 pandemic hit. However, the pandemic exacerbated the issue, and shined a light on the suffering many healthcare workers were experiencing. This sparked a boom of research into burnout and moral distress research because the health care system was literally breaking apart under the increased demands and pressures of overloading with so many patients. One of my interviewees reached the point where they thought "we're just all going to die. Because nobody has the capacity to take care of the patients that we're getting.". (Interview 2). Much of this research primarily focused on the experience of working within the pandemic, and how the pandemic was affecting the healthcare personnel rather than ongoing underlying contributing factors which had been present for much longer than the pandemic. People suddenly realized that they need people to take care of them when we get sick, but if the healthcare providers are drowning in the stress, they're dying, they're leaving the medical field, people are not going to have anyone left to take care of them. While the pandemic did help bring some of these factors to light, it is important to remember that the pandemic itself was not the root cause that led to the experiences of burnout and moral distress, but rather like adding gasoline to an already raging wildfire. Drs Hlubocky, Taylor, Marron, et al. help to establish that

> "The COVID-19 pandemic has presented many nuanced situations for moral distress to occur, such as preventing family members from visiting the ill, inability to rest, forced decision-making of life support, lack of resources, such as PPE and ventilators, few effective treatments, and the inability to practice as normal. [this study] categorized the broad range of workplace factors into patient factors (e.g., suboptimal care due to the volume of patients), clinical factors (e.g., inadequate medical knowledge of reassigned positions), institutional factors (e.g. pressure to employ untested treatments), and policy factors (e.g. frequent guideline changes), demonstrating that circumstances that increase the likelihood of moral distress can surface from numerous places in the system."[26]

To control the spread of COVID-19, visitation to the hospital was closed, leaving healthcare workers as mediators between patients and their families and "forced into an

emotional and heartbreaking role — offering comfort, facilitating anguished goodbyes via FaceTime and bearing lone witness to a patient's final moments."[20]. The lack of visitation also made it more difficult for healthcare workers to explain or show the patient's condition to family.

Another challenging component in the beginning of the pandemic was the lack of solid information we had about protocols, safety and infection control, and treatments. Information was changing every day, new studies, new data. Every day when healthcare providers went to work something would be different. This instability and uncertainty added a layer of increased stress to an already highly taxing situation. When patients or families asked questions, the answer was often 'I don't know' or 'this is what we know right now but that might change'. Healthcare providers often also suffered supply shortages on crucial items such as masks and ventilators. This necessitated the rationing of some medical equipment, prompting some important bioethical questions, such as who gets the last ventilator, to be raised. When there is only one ventilator left but multiple patients who need it, how do you prioritize who gets that lifesaving equipment? Who gets to live versus who will die and how do you make those decisions? Providers were suddenly forced into making these lifeboat ethics decisions on the fly about an illness they knew little about. There were additional discussions of whether treatment for medical professionals who were sick with COVID-19 should be prioritized, so that once they recover, they can go on to take care of more patients and save more people. However, those who are prioritized for treatment may experience survivors' guilt because they went into the healthcare field to help others, to help people who were suffering, who were in pain, who were sick, and who needed support. Yet, when it came down to it someone else's life, health, or wellbeing was sacrificed so that the medical professional could be prioritized. The provider might have survived but it was at the expense of patients who they had sworn to try to help, leading to survivors' guilt and causing a sense of guilt and shame.

> So, I've described the COVID ICU to my wife, how it's just, it's just a House of horrors, it's just a horror show. It's just the most horrible thing, to go in there and see people this damaged. And you look at these ventilators and know how hard it is to breathe for these people, take care of them, keep them alive and all of the extraordinary things that we're doing, it's just it's just horrible. They eventually get to the point where you can't breathe for them and they wind up dying because you can't, you can't get oxygen in and carbon dioxide out and, I think that everybody just needs to know this, this just was a horror show, it still is just an

> absolute horror show. You couldn't make up something worse than this on it on TV or on a movie. It's just absolutely the worst thing outside of maybe an Ebola epidemic. It's just absolutely the worst thing you can think of. (Interview 4)

Hopelessness permeated the COVID units. The lack of treatments at the beginning of the pandemic left healthcare workers feeling as if there was nothing they could do to help or save their patients. Everything they were doing made little to no difference, it was out of their control and all they could do is sit by and wait. Some providers were "experiencing guilt regarding the perceived inability to contribute to the fight against the virus, while others experience guilt for knowing a patient's condition and not being able to address their needs.".[26]. Health care workers were already overworked before the pandemic, and the addition of COVID-19 pushed them into many unsafe staffing ratios. Providers didn't have enough time for each patient, and in some cases, there would be more patients than there were beds or rooms.

> "We had to pull people out of clinic in order to take care of just the crushing complexity of these patients in the intensive care unit. It took twice as long to take care of a COVID patient that did it a regular ICU patient. You take your sickest ICU patients that we dealt with before, and every COVID patient on the ventilator was just like that. And you became just ground down because we're used to not saving everyone. We're not going to save everyone. But when I come into a situation, I think I can, I think I can fix this, I think I can get through this. I don't think I'm going to get through this. Obviously, you're not always right and you want to always do your best, no matter where you think you are. But in coronavirus it became readily apparent. Once things started going, you weren't going to stop it. And it was a slow, slow train wreck where you could see the patient failing each day, little by little by little. And there's nothing you can do to stop it" (interview 1)

Later in the pandemic, there have been so many preventable deaths. If people would have taken the vaccine when it first came out maybe the later waves would not have been as bad, and more lives could have been saved. Increasingly, the people who end up hospitalized are those who chose not to get the vaccine, who could have likely prevented this. The pandemic "doesn't have to be as bad as it is, which makes it worse, and I just want everybody, I just wish everybody could just see a little bit of what we [healthcare workers] are seeing in that intensive care unit." (Interview 4). However, there has been widespread misinformation, with many people falling victim. They don't trust the medical profession, or the science coming out right especially when

at the start of the pandemic guidelines were changing so quickly. People saw how fast everything was changing and concluded that the scientists didn't know what they are doing, or they are lying. However, that's part of the scientific process. It is part of the scientific method to continue to ask questions, continue to learn and adapt to continue improving. things were changing and adapting extremely quickly because scientists and medical professionals were gaining more information and "trying to practice with the best science available now ... And you keep modifying until you get better and better and better and that's what we've done." (Interview 4). It can be very difficult to fight these misconceptions and misinformation when the majority of a person's medical experience and their perception of the medical field is built by what they see on the TV. Sometimes people believe that Grey's
Anatomy, a newscaster, or a reddit forum understands medicine better than the doctor does.

However, there are consequences beyond the impact that this may have on patients. "Now, as many Americans suggest that they have lost confidence in health professionals and scientists, many physicians are reporting feeling isolated, lonely and disconnected to their belief in the value of their work, another contributor to burnout."[19].This can be heartbreaking and dejecting for a lot of healthcare professionals, when they are doing the best they can to provide for their patient, yet their patient looks at them and says 'no you're lying' or 'I don't trust you'. This can make a person bitter and cynical, further contributing to burnout and moral distress. As they watch the numbers start to rise once again, they dread the coming days, as they know the suffering to come. Each time they escape, getting the barest taste of relief, they are dragged right back down. It is almost worse than just staying in misery because that taste of what it could be like will haunt them for long after.

Potential Solutions

Prior research has also shown that "the most important single factor shaping the meaningful quality of medicine springs from doctors."[15], and that patient outcomes can be strongly influenced by the demeanor and presentation of the physician. Knowing this, the health and wellbeing of the physician is of utmost importance, for a happy, healthy physician will likely have better patient satisfaction and outcomes.

In order for lasting change and impact being made the research points to large systemic interventions. It is unrealistic to ask health care workers to find solutions and fix the system on

their own. Instead, "It is critical to address burnout not as an individual issue, but rather as a systemic issue that emanates from workplace culture, health care policies and regulations, and societal expectations."[22]. Changes and movements this large and fundamental, while direly needed, require significant backing and support. Unfortunately, there are powerful parties such as large pharmaceutical and health insurance companies working to obstruct such changes to the current system, which serves to help them make more money, often at the expense of both the healthcare workers and the patients. To overcome the large amounts of money, influence, and political lobbying these large entities employ, there needs to be a huge and passionate movement empowering and encouraging healthcare providers to let their voices be heard. This listening will allow for the space and opportunity to develop solutions that "focus on enabling clinicians to act according to their professional values."[24] by pushing administrators and healthcare organizations to prioritize ethics which align "with medicine's professional values [which] requires responsive ethics and other leadership committees that empower physicians to exercise their moral agency to act ethically, rather than what would be safest for risk management or best for a short-term bottom line." [24] One of the first steps, with which I hope this paper will help, is helping the general populous understand not only the facts of the problem at hand, but also the devastating impacts of moral distress, burnout, and moral injury. In addition, Dr. Kalter proposes that

> We must set realistic expectations of our doctors, as human beings working incredibly hard to navigate a broken healthcare system to help the people under their care. Yes, the healthcare system is broken. It isn't your doctor's fault. Yet, the assumption it is has broken your doctors too. And if no one stands up for the health of our healers, well, there will be no one left to do any healing at all. [63]

In attempting to mitigate the causes of moral distress and develop interventions, there are political, governmental, and systemic issues which need to be addressed. These include obstructive and ineffective policies[4,13], to the underrepresentation of minorities in the medical field, to inadequate staffing, and the 1997 cap on Medicare support for graduate medical education limiting the number of residency slots and therefore contributing to the shortage of physicians[16]. Implementing interventions on a hospital, or even statewide level will not be enough to bring sustained change, instead, "addressing the epidemic [of burnout] requires systemic changes by health care organizations, educational institutions, and all levels of government, says a new report from the National Academy of Medicine."[22]. Systemic reform

using informed governmental policy change would perhaps be the most sustainable and widespread intervention. However, in order to even propose such interventions, small, successful interventions must first be developed, implemented, and studied to determine which interventions work best and how best they can be executed.

There are several ways to mitigate the impact of burnout, moral distress, and moral injury suggested by the current literature including, but not limited to, working to "Create positive work environments, address burnout in training and at the early career stage, reduce tasks that do not improve patient care, improve usability and relevance of health IT, reduce stigma, improve burnout recovery services, and create a national research agenda on clinician wellbeing."[22]. A key intervention "may be as simple as changing how we do documentation, the electronic medical record, because that adds time to my day. (Interview 1). Changing the EHR and adapting its components to be more functional for the providers would help it fulfill its purpose of increasing communication and holding accountability while not detracting from patient care. Healthcare providers themselves should be included on the discussions and trials guiding what changes need to be made, so that the new system is built with not only profits, but also patients and providers in mind. The improved EHR could then be made universal across all healthcare providers and throughout the medical system to increase interprofessional communication and collaboration without the hassle of transferring records between multiple different systems. This change could hopefully allow providers to spend more time with the patients again by decrease the number of administrative tasks they are forced to complete.

There has been a lot of ongoing debate and discussion surrounding another potential solution, the regulation of standardized staffing ratios. The "American Nurses Association was suggesting or fighting for federal regulations to standardize a ratio for levels of care" (Interview 2), which would help ensure that the patients will receive the amount of time, attention, and care that they need from their provider by regulating how many patients each provider can have at once. Since "fatigue independently and meaningfully contributes to medical errors,[28,33] percutaneous needlestick injuries,[34] and motor vehicle crashes,[34,35] further interventions, perhaps aimed at work density as suggested by others,[36] appear warranted." [48]. Standardized staffing ratios set the number of patients that each provider could have at a safe level based on the severity and intensity of the patient's condition, therefore making sure that the provider does not end up overloaded, overwhelmed, and overworked.

Changing the public perception and knowledge of the medical community and the health care system is another key component of changing societal and individual expectations of healthcare workers. Cultivating an informed public not only will help patients make decisions about their own and their loved one's health, but it will also relieve the strain that health care providers feel when they are fighting ignorance and misinformation in their attempt to explain difficult, complex situations or treatments, often while pressed for time. Some of the ways this could be done is through public health campaigns to disseminate accurate and reliable information to the public about the realities and limitations of healthcare and medical treatments. Additionally, a standardized curriculum for a required health course in high school would help future generations better understand the medical system and these important components of advocating for themselves and for their families. There is a distinct "lack of scientific understanding, I think, so education in general about Health and Science and things like that that would make medicine look better. You might take your blood pressure medicine every day instead of whenever you felt like it because you'd understand how it works." (Interview 3). Some potential topics to be included are end of life care and decision making, the roles of different healthcare providers, navigating insurance coverage, and preventative health topics such as diet.

I would like to end my thesis on a good note, I would like it to be positive. I would like to see a light at the end of the tunnel especially since the majority of all of this is rather dark, rather gloomy, rather depressing. However, I really am unsure whether there is a way to end or solve the issues of moral distress, burnout, or moral injury without completely burning the current system to the ground. There are too many complex and moving factors in this web to untangle them all in the current system. We might be able to mitigate the symptoms and the impact of these problems within the current system but there will not be a way to prevent their development. Perhaps it would be best to burn it down and create a new one from the ground up rather than hold onto our current system. I am not sure there is a way for healthcare workers to escape the experience of burnout, moral distress, or moral injury trapped as they are in our current system. They will emerge fundamentally changed, and there is no way to get out unscathed. Drs Čartolovni, Stolt, Scott, and Suhonen assert that

> "Physicians are smart, tough, durable, resourceful people. If there was a way to MacGyver themselves out of this situation by working harder, smarter, or differently, they would have done it already. Many physicians contemplate leaving heath care altogether, but most do not for a variety of reasons: little cross-training for

> alternative careers, debt, and a commitment to their calling. And so, they stay — wounded, disengaged, and increasingly hopeless."[57]

No one wants a healthcare provider who is too scared, too busy, too burnt out, too oppressed to advocate for them to receive the best care possible, to fight to defend the patient's wishes and autonomy. Yet, that is what we will get by allowing our healthcare workers to suffer and drown in moral distress, moral injury, and burnout while ignoring their cries for help. The internal conflict many providers face can appear very different from individual to individual, and their experiences should be validated and respected regardless of the manifestation of their suffering. Many of those who survive and stay in the medical field are too scared, too exhausted, too hopeless to speak up or fight for change. However, by identifying and addressing the root causes of burnout, moral distress, and moral injury, whether by changing the current system or by building something new, we will be able to create a system that is healthier not only for providers but also for patients.

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