STRESSORS OF COVID-19 FRONT LINE HEALTHCARE WORKERS

"Scared is what you're feeling; bravery is what you're doing." (Emma Donoghue, Room)

The race to reduce COVID-19 morbidity and mortality to zero continues. Without a doubt, the top newsmakers of this 2020 pandemic will be front line healthcare workers. Imagine the "*lived experience*" of these everyday heroes who selflessly work 8-12 hour shifts, day after day, shrouded in uncomfortable, but vital, protective apparel. What feelings and stresses lie behind the masks?

Fear of Contracting and/or Transmitting the Contagion

Worldwide, the scarcity of personal protective equipment (PPE), masks, gowns, gloves, goggles, face shields, is the greatest source of stress for front line staff. Inadequate protection intensifies fear that they will be infected with the virus and/or take it home to their family.

Even with adequate PPE, all providers working with suspected or confirmed COVID-19 infected people, must comply with strict isolation procedures -- one that protects self and others. "*One omission or misstep on anyone's part could endanger the entire department*". [1] Without total vigilance and compliance, the risk of viral spread soars. Disease transmission is a constant threat and stressor for all staff. *"Every time I go to the ICU I basically hug my family and take a picture of my kids. They don't know, but in my mind, if I have an exposure, I don't know if I'll come home. I don't know if I should. I don't know where I'll go. There's just a lot of fear about that".* [2]

Evidence from several nursing homes in North America highlights the vulnerability of staff and patients to the cycle of contagion spread. Limited access to PPE, slack isolation practices, substandard facility cleaning, ineffective separation of symptomatic patients from others, little staff training and minimal supervision are described. When staff became ill with the virus or fail to arrive for scheduled shifts, workforce shortages worsen, workload increases and inexperienced workers are recruited - all raising the risk of breaks in isolation and further transmission. Working conditions that make staff feel unsafe cause high anxiety, fear, anger, and mistrust. [3,4,5]

Dealing with Death and Suffering

Front line staff describe intense emotional strain from witnessing ongoing severe suffering and death. Those working in COVID-19 epicenters constantly observe scores of acutely ill patients lining corridors of emergency rooms, fighting for life in critical care units or struggling to survive in segregated isolation wards. *"These people are fine one minute and dying the next minute"*. [6] "*We're saving everyone we can*".[7] "*When you're faced with this invisible, intractable, unstoppable thing, people's fear goes way up*". [8]

An emergency room (ER) physician notes, "*what has been especially difficult are the diminished options available for treating people with the virus. A person having trouble breathing, who isn't responding to simple oxygen, has but one hope: being put on life support in a medically induced coma*". [1] Family visits are not permitted, so nurses, physicians and respiratory therapists become the sole support during this life-threatening crisis. It's heartbreaking for families and heart-wrenching for staff. [3,6] Health care team members silently persevere, while trying to conceal their own stress and exhaustion. [3,5]

Raging coronavirus outbreaks, occurring in 20% of nursing homes in U.S., have caused at least 7000 deaths as of mid-April [9,10]. In Canada, long-term care fatalities account for nearly 50% of all COVID-19 mortality. Workers stand by helplessly as countless patients struggle to breathe, decline quickly and die alone. "*Patients were falling ill, and deteriorating with troubling speed. The nurses kept saying, they were not like this two hours ago*". [11] Being unable to alleviate suffering adds to the enormous stress, despair and guilt feelings. A journal entry of an orderly written after her 2nd 16-hour shift states, *"I am torn apart"*. [4]

Overwhelming / Unpredictable Work Environments

Front line providers working in COVID-19 hotspots describe workplaces as chaotic crises centers – like a tsunami or war zone. "*We are seeing the number of cases double, and double, and double again*; *we're hearing terrifying stories from New York. … It's the same as what we hear in Italy*". [2] *"Some nurses did not want to eat or drink for 12 hours because they were scared to take off and put on the same PPE"*.[12]

Hospitals frantically try to mobilize human resources, while fiercely competing for finite supplies and equipment. Staff often take short, quick breaks, work double shifts and long stretches without time off. They experience bewildering exhaustion, with some near breaking point. There is no debrief after busy shifts, leaving providers to deal with emotional anguish on their own. *"I cried the entire ride home"*; *I haven't slept because my mind won't shut off".* [12] *"This is what we signed up for but it doesn't make it any easier".* [13]

Though the virus is running rampant through some communities, many areas have experienced slow or steady patient volumes, but have not been overrun, despite planning for surge capacity. In these settings, there is still fear of unexpected spikes. *"Hospitals are filled with constant nervous, anxious energy".* [13]

Seeing Coworkers Fall Ill

Healthcare providers are driven by a determination to save lives and reduce suffering. This conviction is evident in the masses of retirees returning to the workforce and putting themselves in harm's way to help with demand. Data from 52 countries indicate more than 550 healthcare workers have died from COVID-19 infections as of April 20, 2020.[14] Thousands of others worldwide have fallen ill with the virus. Staff turmoil escalates when peers get sick. "*I have more than a dozen of my physician friends across the country, in New York, in Washington, in California, who've been diagnosed with Covid-19 at this point. So I know that I'm high risk".* [2]

If teammates die of the virus, healthcare workers not only feel immense loss, but they become more fearful for their own lives[15]. Comments reveal their depth of grief: *"We will always remember our colleagues who sacrificed themselves to save lives";* "*gutted*"; "*profound sadness*"; "*none of us could have imagined dying or infecting our families with a deadly disease from our jobs while we studied for our chosen professions*". [14]

Ethical Conflicts

The practice of healthcare providers is guided by ethical and professional obligations, including duty to care, doing what's right and doing no harm[16]. In the context of the highly contagious coronavirus, tensions arise about duty to care. Staff around the world complain that supply and/or human resource shortages jeopardize their safety and/or impede their ability to provide ethical, competent, standards-based care. Advocacy, regulatory and professional groups argue that employee duty to care must always be balanced with employer duty to protect.[17-23] This pandemic has exposed suboptimal work and safety conditions in some seniors health settings that greatly limit workers' ability to meet best practice standards of care.

If a staff member without adequate PPE is exposed to a COVID-positive patient, viral infection resulting in mild-moderate-serious illness and/or death may occur. Even if no illness results, it is highly possible that the contagion will unknowingly be transmitted to another. Any provider who infects another with a virus for which there is no cure is likely to experience ethical conflict because of the perceived failure to comply with duty to do no harm. Amid enormous global demand for PPE, staff are asked to reuse masks, sometimes up to five shifts or until soiled, adding to their worry about risk. [6] *"Almost all of our PPE is meant to be disposable. We are reusing them. But it is not the way this equipment is meant to be used. This does not feel normal. It feels scary. And it feels that there is a potential for error*". [2]

Physicians and others caring for the most critically ill COVID-19 patients face stress associated with end-of-life care. They describe ethical dilemmas about life-support decisions amid ventilator shortages. There may be difficult choices between comfort measures or aggressive therapies for patients with advanced disease. Comments of an ER physician in California reflect the gripping stress: *"Which end-of-life conversation will keep me awake at night in a decade? Which face will flash into my consciousness when I'm commuting to* work"? [5]

Gruesome images associated with COVID-19 destruction may cause ethical distress. Huge nursing home fatalities, mass graves, refrigeration trucks as makeshift morgues overflowing with body bags or webinar funerals may all trigger conflict with respect to one's moral beliefs about human dignity and sanctity of life. [15,24-27]

Uncertainty

An ER physician described the experience on the front line in this pandemic as "*surreal*" and as a time "*fraught with uncertainty*". [1] Another cited multiple day-to-day changes in patient volume, practice protocols, treatment options and CDC guidelines. "*So at the same time we're facing uncertainty about our own risk of getting ill, we're also facing uncertainty about what the best current protocols are for assessing and taking care of these patients because there's so little scientific evidence*". [2]

Another unknown is how long this pandemic will last. There are hopeful signs of slowing in some regions, but ER volumes, hospital admissions and ICU stays remain steady or high in others. Public health predictions show no end-point and even suggest things may get worse. Staff wonder what's ahead; they worry how much longer they can endure the stress; they reflect on the daunting prospect of a pandemic rebound after the current storm subsides; they question when, if ever, things will return to normal.

Loneliness / Separation from Family

The risk of viral infection induces some healthcare workers to live apart from families. Two married physicians, who have lived in separate dwellings since the pandemic began, do so to guard against infecting each other and to be available on the front line as much as possible[13]. Some choose to socially separate to avoid transmitting the virus to at-risk family members. Still others isolate in their own homes. Loneliness is the common theme. *"This significant disruption in social support — in the name of helping and protecting others — could go on for months. It is also quite lonely*". [28] "*My wife and kids fled to her parents; the stress and exposure at work, coupled with the isolation at home, is trying*". [29]

Conclusion

The gravity and magnitude of the COVID-19 pandemic is unknown in modern times. In the race to zero morbidity-mortality, history is being written, health innovations are emerging and scientific knowledge is advancing. Citizens from all corners of the globe are looking at front line healthcare workers with a sense of trust, respect, pride and, most of all, gratitude for their courage, commitment and compassion.

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Next week: why individual support and recognition is critical during and after pandemic periods.

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