Critical Care Explorations

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Coronavirus Disease 2019: Harnessing Healthy Fear via Knowledge, Attitudes, and Behavior

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As reports of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infections spread across the United States, the landscape of ICU's across the country changed. Gone were long bedside meetings and hand-holding, sit down conversations with patients and families. Instead, we found ourselves covered head to toe in personal protective equipment (PPE)-unrecognizable to our patients, nurses manipulated IV pumps placed outside of patient rooms and communicated to one another via headsets. To limit community spread within the hospital, family members were banned, and patients and even healthcare professionals often felt alone and afraid (1, 2). The influx of patients resulted in shortages of materials and personnel. To meet this need, many hospitals increased their ICU capacity severalfold. Medical societies developed strategies to expand the ICU workforce through use of tiered staffing strategies that enlisted medical team members from either noncritical care disciplines or pediatric specialties to care for critically ill adults (3). Ethicists refined previously developed triage mechanisms to address ICU resource allocation when patient volume and acuity outstripped medical capacity (4).

Working with the unknown, clinicians, researchers, and administrators turned to any and all information (5). The medical literature filled with case reports; social media lit with conversation that this pathogen and the disease it caused were unlike anything seen before (6). Compared to our established approach in patients with "typical" respiratory failure, we intubated earlier, sedated more deeply, created physical and mental barriers between the patients and our medical teams, searched for the "cure," and moved away from proven strategies such as lung-protective ventilation (7) and the ICU Liberation ("A" for Assessment, Prevention, and Manage pain; "B" for Both Spontaneous Awakening Trials and Spontaneous Breathing Trials; "C" for Choice of Analgesia and Sedation; "D" for Delirium Assess, Prevent, and Manage; "E" for Early Mobility and Exercise; and "F" for Family Engagement and Empowerment [ABCDEF]) Bundle (8). In the new reality of the coronavirus disease 2019 (COVID-19) pandemic, practicing evidence-based, critical care medicine became a plea rather than the default (9). New barriers to Bundle application exist with COVID-19: enlistment of new ICU interprofessional team (IPT) members with limited Bundle familiarity, need for social distancing that reduces in-person and synergistic IPT collaboration, and PPE shortages that prohibit collaborative bedside team and patient interactions.

In the face of refining the approach to ICU Liberation Bundle use, we must also address how both irrational and rational fear have impacted our behaviors. As we wait for new knowledge to develop, we have become fearful that the care we are providing is ineffective or impractical. We have limited our bedside interactions and observations in favor of technology that allows monitoring from a distance. Others have described how individual and systemic fear change the behaviors and attitudes of bedside team members (2, 10). In so doing, we have lost the human connection that creates empathy, compassion, and understanding.

To combat fear, we must turn to transparency. Transparency of decision making and answering the question, "Why are we doing it this way?" are paramount to establishing a cohesive, team-based approach that is the foundation of successful ICU care. As we

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all learn to adapt proven approaches to this new infectious disease, we can approach the challenge armed with the Knowledge-Attitudes-Behavior framework. This framework has been used to explore barriers to guideline adoption across medical specialties (11) including critical care medicine (12); it serves as a model for characterizing the impact of a major factor on Bundle performance during the current pandemic: "fear."

KNOWLEDGE

We fear the unknown. The effects of the novel SARS-CoV-2 on human physiology remain poorly understood, and the clinical course and natural history appear variable. Critically ill patients die at alarming rates, causing clinicians to doubt best practice, even though current guidelines include evidence derived from a diverse array of infectious and noninfectious etiologies, including patients with severe acute respiratory distress syndrome (13, 14). The resultant abandonment of the Bundle causes confusion among the ICU IPT, misses opportunities for humanization in the ICU amidst the dangerous effects of isolation felt by parents and personnel, undermines mechanisms that promote collaboration and safety, and compromises the evaluation of new COVID-19 focused interventions. We each have the ability to turn our minds and those of colleagues back to the "knowledge" we have accumulated through well-executed and definitive top-tier randomized trials over the past decades.

ATTITUDES

Conflict between serving others and maintaining personal well-being exist. Healthcare providers, consistent with our experiences following the 2002–2003 SARS epidemic, are fearful of contracting the diseases that affect our patients, but are even more fearful of transmitting infections to others, especially loved ones (15). This fear of personal safety impacts our "usual care" approach to critical care delivery (10). Fatigue, both physical and emotional, grows as long hours accumulate while clinicians witness widespread suffering, all while striving to provide emotional support for patients removed from loved ones. Persistent media coverage of the pandemic and frequent questions about the illness worsen psychologic fatigue. At the same time, ICU professionals are frequently isolated from their own support systems, often living apart from family to protect them from infection. Thus, our "attitudes" change toward each other and toward those whom we serve deserve our utmost attention and maintenance.

BEHAVIOR

The strain of caring for an overwhelming number of COVID-19 patients has resulted in a seismic change in ICU IPT behavior. The care team, physically separated from their patients, must don PPE to enter the room, prolonging the time needed to respond to a distressed patient. Fears of self-extubation result in increased use of sedatives and neuromuscular blockade as well as reduced spontaneous awakening trial/spontaneous breathing trial performance. Patient wakefulness and orientation diminish, eliminating the possibility of movement or mobility. The result is a recrudescence of the comorbidities the Bundle prevents (16–19). Due to PPE shortages and admission surges, IPT members, including therapists who contribute to Bundle performance (20), are less likely to be involved in daily care. The ICU bedside nurse, already being called upon to "do more with less" is left to shoulder greater responsibility for Bundle performance. This "behavior" is not sustainable. We must return to collaborative team effort to ensure that at each bed the concepts incorporated into the Bundle, through decades of work and hundreds of publications, are adapted in the COVID-19 era to ensure that we wake patients up, get them out of bed, and liberate them from the shackles of life support in a timely fashion with as little post-intensive care syndrome as possible.

Finally, as SARS-CoV-2 becomes commonplace, and as many of our healthcare professionals recover from infection by this virus (including first author H.R.O.), another fear arises. It is the fear of complacence, the fear that we lose our "edge" in treating such a deadly pathogen. As businesses reopen and the economy recovers, we must maintain a "rational" fear—a respect—for this virus and all communicable diseases. We are reminded of a quotation attributed to Marie Curie: "Nothing in life is to be feared, it is only to be understood." Through science, we will develop the knowledge to understand and conquer this virus; hopefully, we will use lessons learned in this pandemic to trust the knowledge previously gained through science to conquer the next pandemic.

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