Burnout Syndrome in the Intensive Care Unit Future Directions for Research

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Burnout syndrome is a psychological condition experienced in the workplace that is characterized by exhaustion, depersonalization, and a reduced sense of personal accomplishment (1). Burnout syndrome can manifest as physical and emotional health problems. Work-related consequences can include clinician dissatisfaction, decreased quality of care delivered to patients, medical errors, unjustified absenteeism, and intention to leave the organization. Health care organizations and leaders within the critical care community are increasingly concerned about the development of burnout syndrome among intensive care unit (ICU) health care professionals (2, 3). These concerns are fueled by growing awareness of the major adverse consequences burnout can have on individual clinicians, health care organizations, and patients.

An official statement addressing burnout syndrome among ICU health care professionals was prepared jointly by the American Thoracic Society (ATS), American College of Chest Physicians (CHEST), American Association of Critical Care Nurses (AACN), and Society of Critical Care Medicine (SCCM) and was published simultaneously in journals of the participating societies, including the *American Journal of Respiratory and Critical Care Medicine* (4). The statement discusses the prevalence, contributing factors, diagnosis, consequences, prevention, and treatment of burnout syndrome in ICU physicians, nurses, and allied health professionals. This editorial

expands on the research needs identified by the multisociety writing panel. Four priorities are highlighted for future research: the diagnosis of burnout syndrome in critical care health care professionals, the general effect of burnout syndrome, preventative measures and treatments, and the dissemination and implementation of effective interventions.

Research on burnout syndrome requires the development and validation of appropriate tools for identifying and measuring the severity of the syndrome. The Maslach Burnout Inventory Human Services Survey (MBI-HSS) is the most commonly used instrument for the measurement of burnout syndrome (1, 5, 6). The original MBI-HSS is based on a three-factor conceptualization of burnout, which includes the constructs of emotional exhaustion, depersonalization, and personal accomplishment. Self-assessment instruments of this type are expected to measure the same constructs over a variety of subject cohorts and across repeated applications to the same subjects over time. If those expectations hold true in practice, the analyses of the scores are acceptable and yield meaningful results. However, there have been inconsistent findings based on the three-factor model for the MBI-HSS related to measurement invariance (7–9). Dramatic, unexplained variations in prevalence have been reported. There is also a question of whether the three-factor conceptualization of burnout embedded in the MBI-HSS appropriately defines burnout in the critical care health care professional.

Future research should focus on developing briefer screening tests for burnout syndrome, examining the validity of diagnostic tests in the ICU health care professionals specifically, the validity of diagnostic instruments over time, and the responsiveness of the instrument to detect meaningful improvement in symptoms. Other than self-assessment instruments, there are no binding diagnostic criteria for burnout that enable differentiation between adverse consequences of the work environment and primary psychiatric disorders. To enable this differentiation, health care organizations may also benefit from developing a brief screening questionnaire to implement during the hiring of critical care health care professionals.

Using existing instruments, estimates of the prevalence of burnout among critical care nurses and physicians have ranged from 25% to 80%, and the average severity has ranged from mild to severe (3, 10, 11). The temporal relationship between burnout and the ICU environment is poorly understood because all these studies have been cross-sectional in design. Therefore, prospective cohort studies are needed to more accurately define the prevalence of burnout and determine how quickly burnout develops. Assessing baseline burnout levels before commencing work in the ICU and repeated measures over time will help address the question of temporality.

Other questions need to be addressed to fully understand the effect of burnout on critical care health care professionals and

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to develop effective interventions. These questions include the attributable effect of burnout on individuals' intent to leave the ICU environment; absenteeism and job satisfaction; determination of the prevalence of burnout in ICU providers outside of nursing and medicine; the effects of burnout on the subsequent development of psychological diagnoses such as symptoms of anxiety, depression, and posttraumatic stress disorder; a better understanding of the economic effect of burnout syndrome resulting from nursing turnover, days of work missed, and medical errors; and the prevalence of maladaptive coping such as alcohol and drug abuse or suicidal ideations.

What is the broad significance of understanding the effect of burnout syndrome? Why does this syndrome matter? There is evidence to suggest an association between burnout and patient care outcomes such as patient satisfaction, infection rates, and medical errors (12–14). However, the limitations of these studies again are related to the limitations of the available measurement instruments and the cross-sectional design of studies published to date. There is particular need for more definitive studies defining the association between burnout syndrome and patient-centered outcomes.

There is a paucity of evidence related to the prevention and treatment of burnout syndrome. One small, randomized controlled trial of a resilience training program in ICU nurses implemented a multimodal intervention of written exposure therapy, mindfulness-based stress reduction, exercise,

and event-triggered cognitive behavioral therapy sessions (15). The results suggested that the intervention was feasible and acceptable. There were also improvements in resilience scores and reduced symptoms of PTSD and depression. Outside of this small trial, therapies for burnout in critical care health care professionals have been relatively unexplored. This research is needed and should be a priority for the critical care community.

Resilience is a psychological characteristic that enables one to thrive in the face of adversity and has been associated with reduced symptoms of burnout syndrome. Although some people have intrinsically resilient personalities, characteristics of resilience can also be learned. Specific factors that promote resiliency include developing positive coping skills, attention to physical well-being, and positive support systems.

Strategies to promote resilience should be explored both at the individual and organizational levels. Individual strategies may include increasing communication and support from colleagues, setting realistic professional and personal goals, building breaks into workdays, and balancing work and home-life priorities. Organizational strategies may include participatory decision-making, developing interpersonal relationships among health care providers, and training programs targeted at psychosocial well-being. These strategies could be testing individually or as a multimodal intervention. The value of a multimodal intervention is

that it is more likely to yield beneficial effects because of variations in perceived effectiveness of any single technique among the health care professionals.

Several strategies may improve the dissemination and implementation of burnout syndrome therapies in critical care. A first step may be to identify specific barriers to program implementation such as lack of leadership support, shortage of organizational resources to effectively lead change initiatives, resistance from the health care professionals, and changes in priorities or weakening commitment. It will be important to engage the support of leadership and facilitate contact with colleagues who have been successful in implementing appropriate interventions. Other approaches may include efforts to develop stakeholder focus groups and promote a team-based and iterative problem-solving approach, support resource utilization with data, and prioritize communication that reaches every level of the health care delivery organization.

A second strategy may involve building organizational culture by adopting interventions for burnout syndrome into the job description of health care professionals. This would clearly articulate the organization's goals related to the importance of interventions to address burnout syndrome and provide clear expectations and responsibilities for the health care professional. ■

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