Intensive and Critical Care Nursing xxx (2017) xxx–xxx

Contents lists available at ScienceDirect

Intensive and Critical Care Nursing

journal homepage: www.elsevier.com/iccn

Burnout and health among critical care professionals: The mediational role of resilience

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ARTICLE INFO

Keywords:
Burnout
Critical care
Health status
Nursing
Resilience
Stress

ABSTRACT

Objectives: To analyse the mediational role of resilience in relationships between burnout and health in critical care professionals; to determine relationships among resilience level, three burnout dimensions, and physical/mental health; and to establish demographic differences in psychological variables evaluated.
Design: Cross-sectional study.
Participants/setting: A total of 52 critical care professionals, mainly nurses, were recruited from an intensive care unit of Madrid (Spain).
Method: All participants were assessed with the questionnaires 10-item Connor-Davidson Resilience Scale, Maslach Burnout Inventory-Human Services Survey, and Short Form-12 Health Survey.
Results: No demographic differences were found. Three burnout dimensions were negatively associated with mental health and resilience. Mediational analyses revealed resilience mediated 1) the relationships between emotional exhaustion and depersonalisation with mental health (partial mediations) and 2) the relationship between personal accomplishment and mental health (total mediation).
Conclusions: Resilience minimises and buffers the impact of negative outcomes of workplace stress on mental health of critical care professionals. As a result, resilience prevents the occurrence of burnout syndrome. Resilience improves not only their mental health, but also their ability to practice effectively. It is therefore imperative to develop resilience programs for critical care nurses in nursing schools, universities and health centres.

Implications for clinical practice

Resilience development in critical care professionals is needed to:

- Prevent the occurrence of burnout syndrome through the minimisation of the negative outcomes of workplace stress, which characterises the intensive care units.
- Improve their mental rather than physical health by increasing their personal accomplishment and decreasing their emotional exhaustion and depersonalisation.
- Improve their ability to practice effectively by buffering the negative effects of burnout syndrome. This could involve an increase of the quality of care and critical patient satisfaction.

Introduction

All healthcare professionals face numerous stressors within their everyday work, and they are continuously exposed to adverse environments. Specifically, critical care professionals are exposed

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http://dx.doi.org/10.1016/j.iccn.2017.04.010
0964-3397/

to serious occupational stressors such as: time pressure, reduced social support at work, excessive workloads, moral and spiritual distress related to ethical issues, uncertainty concerning patient treatment and high risk to develop negative emotional responses due to exposure to suffering and dying patients (Azoulay and Herridge, 2011; Chlan, 2013; Moss et al., 2016; Poncet et al., 2007; Rushton et al., 2015). In fact, intensive care units (ICUs) can be considered as stressful workplaces in which it is likely to develop burnout syndrome (Epp, 2012; Moss et al., 2016; Zhang et al., 2013). The estimated prevalence of burnout among critical care nurses and physicians ranges from 25% to 80%, and the average severity from mild to severe (Mealer, 2016), there are already critical care societies that have made a call for action (Moss et al., 2016). As a result, critical care professionals are at high risk of suffering from this syndrome, which may in turn have a significant impact on their own health and on the quality of care provided.

Burnout syndrome is defined as a negative reaction to chronic occupational stress, in which individuals are exposed to a prolonged misfit between both their needs and values and the job they perform (Leiter and Maslach, 2003). Three main dimensions form part of this syndrome (Maslach et al., 1996): emotional exhaustion (feeling emotionally overwhelmed and exhausted by work), depersonalisation (impassive and impersonal response towards those receiving one's service, care, treatment or instruction) and reduced personal accomplishment (limited competence and lack of successful achievement in one's work).

Although this syndrome can be considered as an individual outcome in itself, it may in turn have negative consequences for physical and mental health of individuals. Burnout syndrome may result in mental disorders (including alcohol abuse, anxiety, depression, posttraumatic stress disorder and even suicidal ideation) and it may have serious psychosomatic consequences (including headaches, hypertension, cardiopulmonary diseases, musculoskeletal disorders, gastritis, stomach ulcers, insomnia and dizziness) (Maslach, 2001).

However, burnout syndrome also results in decreased effectiveness and poor work performance, which have a direct impact on patient care (Moss et al., 2016). This syndrome in nurses is associated with reduced quality of care, lower patient satisfaction, increased number of medical errors, higher rates of health care-associated infections and higher 30-day mortality rates (Cimiotti et al., 2012; Galletta et al., 2016; Poghosyan et al., 2010). Therefore, this syndrome can impact not only on health of critical care professionals but also on their ability to practice effectively.

Despite the numerous proposed definitions of resilience in psychology research literature, the most of them are based on two core concepts: adversity and positive adaptation (Fletcher and Sarkar, 2013). Resilience is required in response to various adversities, ranging from daily hassles (e.g., workplace difficulties) to major life events (e.g., spouse's death) that an individual must adjust to. A resilient individual is more likely to successfully face adversity and adapt positively (Bonanno, 2004; Luthar and Cicchetti, 2000; Masten, 2001). As a result, resilience can be briefly defined as the ability to achieve an adequate and positive adjustment to adversity (Fletcher and Sarkar, 2013).

Resilience concept is now used to explore and understand healthcare professionals who survive and thrive in their workplaces (McCann et al., 2013). For instance, literature reviews explain that resilience is a quality necessary to succeed in nursing because the conditions can be quite adverse (Arrogante, 2015; Jackson et al., 2007). Specifically, the resilience concept can be also used to understand how critical care professionals are able to bounce back after providing care others in critical conditions and experiencing high exposure to potentially traumatic experiences. In this sense, literature points out resilience is a skill that can be learned (e.g. McAllister and Love, 2011).

Resilience, burnout syndrome, and health are linked. Empirical literature has revealed that resilience minimises and buffers negative, stress-related outcomes, such as burnout syndrome (e.g. Dunn et al., 2008). In addition, evidence demonstrates that resilience is associated with better physical and mental health and faster recovery from disease (e.g. Connor and Davidson, 2003). Despite prolific research in this field, there is no evidence to date about the possible mediational role of resilience in the relationships between burnout dimensions and health in critical care professionals.

Methods

Ethical approval

The approval of the corresponding ethics committee (ref. nr. EC508) was obtained from the hospital where the study was conducted. Written informed consent and written information about the nature and purpose of the study was given to all participants to ensure ethical clarity.

Objectives

The main aim of the study was to analyse the mediational role of resilience in relationships between burnout and health in critical care professionals. Additional aims of study were to determine relationships among resilience level, three burnout dimensions, and physical/mental health; as well as to establish demographic differences in psychological variables evaluated.

Study design and setting

A correlational and cross-sectional study was carried out during June 2014 in an ICU in Madrid (Spain). This ICU comprises 12 beds and it attends mainly postsurgical patients (mostly general and emergency surgery) and patients with respiratory (e.g. pneumonia and chronic obstructive pulmonary disease) and cardiac (e.g. heart attack and cardiac arrest) problems.

Participants

Included in this study were critical care professionals (nurses, nursing assistants and physicians) working in the ICU. The estimated critical care staff was 60 professionals. Excluded were those absent on leave during the three weeks of data collection.

Data collection

After obtaining the ethical approval, an interview was held with the nursing supervisor and the chief of ICU in order to request their collaboration for the distribution of the questionnaires. Additionally, an informative meeting was held with critical care professionals and informative posters were placed in the ICU nursing station and restroom. Data were collected using self-reported questionnaires, which were included in a booklet that the participants were asked to complete and return within three weeks. The booklets were personally distributed to all critical care professionals by the study's lead researcher. All participants had to deposit them in a box located in the ICU staff room. All booklets were composed of an informed consent form, a page that included five demographic data (such as gender, age, profession, critical care experience, and contract type) and three questionnaires. Each questionnaire included brief recommendations for appropriate answers. Participation in the study was voluntary and the questionnaires were anonymously completed during working hours. All participants were reassured that they were not obliged to complete the questionnaires and could withdraw at any time. Three

Please cite this article in press as: Arrogante, O., Aparicio-Zaldivar, E., Burnout and health among critical care professionals: The mediational role of resilience. Intensive Crit Care Nurs (2017), http://dx.doi.org/10.1016/j.iccn.2017.04.010