Beyond the ICU: Investigating Influential Factors on the Well-Being of Critical Illness Survivors

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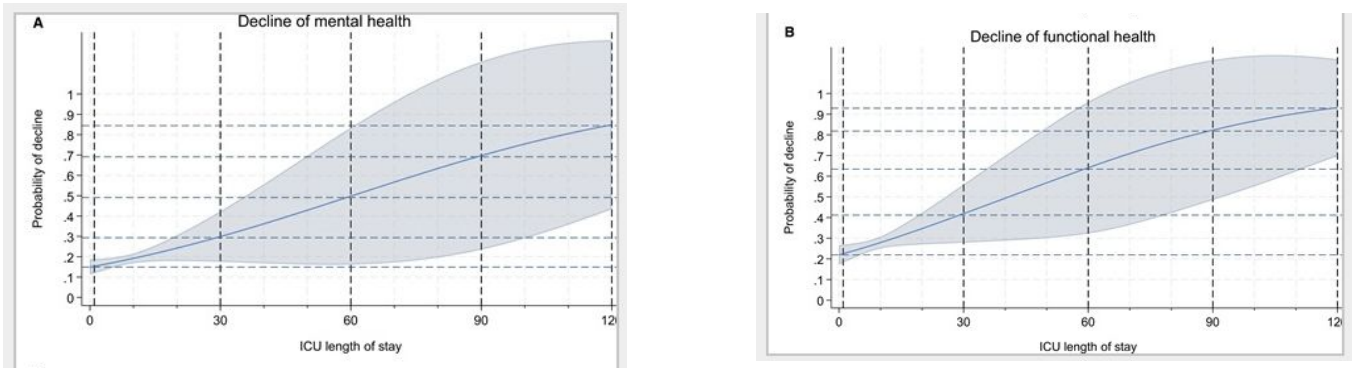
1. INTRODUCTION

Individuals who receive care in the ICU tend to experience post-intensive care syndrome (PICS), which refers to "impairments of cognition, physical function, and mental health".[1] Knowing that such impairments can contribute to ICU survivors experiencing lower qualities of life post-discharge, Paul et. al conducted a study to determine contributors to a poor health status, such as time in the ICU.[1]

In order to determine upward and downward trends in patient subjects' mental and physical health post ICU discharge, this study utilized two patient follow-ups (one at 3 months and another at 6 months following ICU discharge).[1] During these follow-ups, the subjects were able to rate how they felt on a scale of 0-10 (0 being the worst and 10 being the best).[1] This data was collected from 855 patients in a randomized trial and was compared to their pre-ICU data.[1] A mixed-effects regression analysis was performed so that health status trends could be visualized, since this mathematical model allows scientists to visualize how overall big-picture trends can be affected by variables of interest in a data set.[1,2] Following the results of this study, the authors proposed that ICU follow-up resources should be "dedicated to patients with long ICU stays" since this population is more likely to experience health declines relative to their pre-ICU state.[1]

2. PRIMARY FINDINGS



These graphs indicate the correlation between the ICU length of stay and the probability of a patient's decline, whether it be mental or functional health. As visualized, a longer ICU stay indicates a greater chance of decline in both types of health.[1]

It was found that after the first 3 month check-in, 20% of the patients noted a drop of at least 3 points in their subjective mental health.[1] Following more data analysis, researchers were able to determine a relationship between how long a patients' ICU stay was and their mental and functional health.[1] It was found that the longer a patients' ICU stay, the greater the decline in their subjective mental and physical health post discharge.[1] Surprisingly, it was determined that most ICU patients did not appear to experience changes in their health.[1] Furthermore, the researchers found that the length of stay in the ICU, the time in which the patient was mechanically ventilated, and whether they had an episode of delirium "were significantly associated with a decline in mental and functional health".[1]

3. HOW THIS IMPACTS PATIENT CARE

This study demonstrated the insight patient follow-ups can provide and the impact it can have on a patient's functional health status after receiving care in the ICU.[1] Not only did the study showcase the importance of patient-focused assessments, but it also allowed consideration of populations that tend to be overlooked. For example, patients with longer ICU stays become more susceptible for health declines, either mentally or physically, and thus the findings from this study highlight how catering follow-up assessments would aid their post-discharge care. Future researchers might consider investigating other contributors to the relationship between one's ICU stay and their mental health progression be performed to address the emotional health decline noted post discharge.

REFERENCES

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I joined RAP-EMCC because I plan on pursuing a career in emergency medicine, specifically trauma surgery! I enjoy patient interaction and am excited to gain more experience in performing and collaborating on clinical research with my peers and members in the healthcare field. In my free time, I play tennis and the piano, cook, and listen to music! Fun fact: I lived in Mumbai until the age of 3!