Experiences during a stay in the intensive care unit (ICU), including pain, delirium, physical deterioration, and the critical illness itself, may all influence survivors’ health-related quality of life (HRQOL). However, few studies have examined the influence of social support, comorbidity, and pain interference on ICU survivors’ HRQOL. New research published in the journal PLoS ONE reports these key findings:

- ICU survivors primarily report reduced physical HRQOL
- Social support was positively associated with mental HRQOL
- Number of comorbidities and pain interference were all significantly associated with a reduction in HRQOL
- Pain interference was associated with the largest reduction in HRQOL

"Based on these findings and previous research, it seems that what most ICU-survivors need is rehabilitation of physical health. Previous research has found that HRQOL improves even from ICU discharge to hospital discharge, and suggested that rehabilitation must start early. Another study found that early mobilisation in the ICU improved physical function after ICU discharge," writes Anne Kathrine Langerud, MSc, RN, Department of Postoperative and Critical Care, Division of Emergencies and Critical Care, Oslo University Hospital (Norway), with co-authors.

Quality of life (QOL) is a multidimensional concept that, in its broadest interpretation, comprises almost every aspect of life, includes numerous definitions. For the purposes of this study, researchers used the definition of QOL that regards a person’s sense of satisfaction or dissatisfaction with areas of life that are important to them. HRQOL, then, is QOL in the context of health and illness.

ICU survivors from two mixed surgical and medical ICUs at Oslo University Hospital, a tertiary referral hospital, were included in this study. ICU survivors responded to a survey three months (n = 118) and one year (n = 89) after ICU discharge. HRQOL was measured using the Short Form Health Survey-12 (v1) (SF-12), social support using the revised Social Provision Scale (SPS), pain interference using the Brief Pain Inventory–Short Form, and comorbidities using the Self-Administered Comorbidity Questionnaire (SCQ).

The SF-12 (v1) consists of 12 questions about eight health concepts: physical functioning, role-physical, bodily pain, general health, energy/fatigue, social functioning, role-emotional, and mental health. These concepts are summed to create a Physical Component Summary (PCS) and a Mental Component Summary (MCS). Meanwhile, the revised SPS consists of 16 assertions about social support that may apply to the individual (i.e., a high score indicates a high level of social support). The Brief Pain Inventory–Short Form (BPI–SF) assesses pain occurrence, intensity, location, relief, and interference with function; while the SCQ allows the
informant to report both severity of comorbidities and their impacts on their daily life.

Langerud and colleagues found that physical and mental HRQOL were reduced at both three months and one year in ICU survivors compared with the general population. This reduction was more pronounced at three months for physical HRQOL, while a small reduction in mental HRQOL was not clinically relevant. Social support was statistical significantly positively associated with mental HRQOL at three months, while number of comorbidities was statistical significantly associated with a reduction in physical HRQOL at three months and one year and mental HRQOL at one year. Lastly pain interference was significantly associated with a reduction in physical HRQOL at three months and one year.

The ICU survivors in the present study, the authors note, scored high on every SPS provision. "This might be explained by the fact that most of these ICU survivors were married or had a partner, had children (young and/or adult), and were middle-aged, suggesting that they had networks of family, friends, and colleagues," the authors write. "The one individual provision on which they scored lower was nurturance. This might be explained by the mean age of the ICU survivors: many had adult children who did not need parental care in the same ways as when they were children. Some of the older ICU survivors may also have received nurturing from their adult children."

As there is still no high-quality intervention to improve HRQOL in ICU survivors, this may be a subject for future research, the authors add.

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Published on: Tue, 3 Jul 2018