

LETTER

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Letter to the editor

Folke Sjöberg^{1,2,3*} , Lotti Orwelius^{1,2}, Michelle Chew^{1,2}, Sören Berg^{1,4} and Sten Walther^{1,4}

Dear Editor,

We read with interest the paper by Dr. Malmgren and co-workers addressing the issue of health-related quality of life (HRQoL) in former ICU patients [1]. We congratulate the authors for their excellent work, and especially in developing a questionnaire more adapted to depict effects on important areas of HRQoL in ICU patients. There are issues that we want to highlight and comment.

First, often HRQoL investigations in ICU patients lack the use of control groups and the group used is matched for both age and sex. Second, the authors are to be complimented to having addressed two important issues in HRQoL research, that of comorbidity and socio-economic background [2, 3], both in the ICU and Control cohort.

The very interesting finding is that the control group cannot at all be compared with the ICU cohort as both comorbidity and the socio-economic profiles were distinctly different.

Previous studies have demonstrated that decreased HRQoL after ICU care is in large part, due to pre-ICU co-morbidity [4] and socio-economic background [2, 3]. For example, in a study of COPD patients in the ICU matched with hospitalized, non-ICU COPD patients with the same COPD score no difference in HRQoL was seen between groups (ICU/non-ICU) after discharge. In another study the ICU cohort was compared to a general internal medicine hospitalized group not being cared for in ICU and again HRQoL outcomes were comparable.

Finally, what can then be concluded from this study [1] with respect to constructing the questionnaire and what can be said about HRQoL in former ICU patients? The imbalance between comorbidities and socio-economic factors between the ICU and control cohorts diminishes the possibility to make robust conclusions regarding the critical care event itself and its potential effects on HRQoL. This has recently been discussed in a Commentary in this journal [5].

This suggests that the findings (decreased HRQoL) in the ICU cohort, is not primarily related to the critical illness period, but rather stems from comorbidity and socio-economic reasons already present before the ICU-period [2].

General ICU cohorts are heterogenous and it is technically difficult to properly adjust for co-morbidities and the socio-economic background. A consequence may be, that we should examine subgroups with specific comorbidities and socio-economic background and compare the ones being cared for in the ICU with those with the same level of comorbidity and socio-economic background, hospitalized but not in ICU.

Authors' response

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Dear Editor,

We thank Sjöberg et al. for their comments and encouragement regarding our recently published study on developing a long-term follow-up instrument specifically for ICU survivors.

They argue that long-term sequelae after intensive care could mainly be explained by pre-existing comorbidities and/or socioeconomic status instead of being an effect of intensive care. Consequently, a comparison with a non-ICU-treated control group would be pointless. In statistical terms, this can be analysed by implementing a moderation effect of comorbidity and socioeconomic status respectively on the relationship between cohort type and each HRQoL question. By doing this, any asymmetry between the two groups regarding comorbidities and socioeconomic factors can be addressed, and if the authors were to be correct, the interaction effect would emerge and would be quantified as significant. However, before analyses have been performed, no such conclusions can be drawn.

Notably, SF-36 is used in all referred studies. Beautifully described by Lim et al. [6], SF-36 contains very few issues with importance to ICU survivors and may add to the difficulties of adequately capturing differences between ICU survivors and various control groups. We disagree that further subgroup analyses would help. Rather, the Gordian knot might be to obtain pre-ICU data from intensive care patients without using surrogates. This, however, requires a proper measurement tool.

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