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Assessing ethical climates in critical care and their impact on patient outcomes

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Commentary on:

Benoit DD, *et al.* Outcome in patients perceived as receiving excessive care across different ethical climates: a prospective study in 68 intensive care units in Europe and the USA. *Intensive Care Med* 2018; 44: 1039-1049.

Context

Intensive care services are defined as “a multidisciplinary and interprofessional specialty dedicated to the comprehensive management of patients having, or at risk of developing, acute, life-threatening organ dysfunction” [1]. They play a vital role in modern healthcare in supporting the sickest patients to improve survival. For patients at the highest risk of death, ethical dilemmas concerning the benefits and harms of persisting with potentially futile treatment can arise. A recent study by BENOIT *et al.* [2] examined how the quality of the “ethical climate” may affect the predictive value of clinician agreement on excessive levels of treatment. They hypothesised that concordant perceptions of excessive care in better ethical climates would be more predictive of patient outcomes at 1 year and would be associated with shorter time intervals between care perceptions and treatment-limitation decisions or death.

Methods

This was a prospective, observational study conducted in 68 intensive care units (ICUs) across Europe and the USA. At baseline, ICU clinicians (n=2992, 63% of a total 4747 clinicians working in these ICUs) completed the 35-item Ethical Decision-Making Climate Questionnaire (EDMCQ) [3], which measures end-of-life care practices, interdisciplinary reflection, collaboration, and communication and leadership approaches to provide a composite measure of the “ethical climate” of each ICU. Thereafter, clinicians completed daily anonymous questionnaires about their perceptions of disproportionate care (too much care *versus* too little care) for each patient over a 28-day period. The combined end-point (defined as dead, not at home or a utility score of <0.5 on the EuroQoL-5D questionnaire) was compared for patients with perceptions of excessive care, and time from clinician perceptions until written treatment-limitation decisions were compared between ICUs, stratified by ethical climate.

Main results

First, the investigators categorised results from the EDMCQ questionnaires to describe four distinct climates: “good”, “average+” (with nurse involvement), “average-” (without nurse



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Intensive care units with a “good” ethical environment are more likely to identify perceived excessive patient care. Patients with perceived excessive care were more likely to die and time to death was shorter in units with a “good” ethical environment.
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involvement) and “poor”. Following on from this, the course through ICU of 1761 patients (96% required organ support) was examined. Of these, 181 (10.3%) had concordant clinician perceptions of excessive care. Patients who had concordant perceptions of excessive care were more likely ($p=0.02$) to reach the primary composite outcome of death, institutionalised or poor utility score at ICUs with a good ethical climate (100%) compared with a poor ethical climate (85.9%). Patients with concordant perceptions of excessive care were more likely to have a written treatment limitation decision in ICUs with a good ethical climate (hazard ratio 2.32, 95% CI 1.11–4.85). However, this observation was lost after adjustment for different case-mix, hospital and country characteristics. The median time until death was shorter ($p=0.026$) for patients with concordant perceptions of excessive care in ICUs with a good ethical climate (5 days, interquartile range 2–18 days) compared to a poor ethical climate (14 days, 7–30 days).

Commentary

This study concludes that “improving the quality of the ethical environment in ICU may favour the identification of patients receiving excessive care and the subsequent decision-making process at the end-of-life”. However, shorter time to death was not due to more timely treatment-limitation decisions. The observed difference may be due to improved partnership within healthcare teams and more effective implementation of end-of-life plans in ICUs with a “good” ethical climate, but no evidence for this is provided in this non-interventional study. Less easily measured factors may also be involved, such as delay to additional organ support in deteriorating patients perceived as receiving excessive care. The study raises additional questions about possible barriers to treatment limitation once excessive patient care is identified in poor climates. Do patients in these units die despite continued active care? How are consensus decisions regarding treatment limitations made? How can a unit improve their ethical climate? Could a culture of fear or bullying behaviour in units with a poor ethical climate be impairing decision-making? [4].

The key terms of reference underpinning this study, namely “ethical climate” and “excessive care”, require careful examination. A term originally derived from studies of “organisational climate” to better understand business practices, ethical climate is defined as “organisational conditions and practices that influence the ways in which ethical issues and concerns are identified, discussed, and decided” [5]. A consistently robust definition of ethical climate is lacking in the healthcare literature [6]. Perceptions of excessive care are also subjective and based on multiple factors, including clinical experience and

personal values. Most healthcare professionals subscribe to the concept of futile treatment, but this is challenging to define and quantitatively analyse [7, 8]. Therefore, there are inherent limitations for the quantitative measures of ethical climate and excessive care used in this study. In addition, the authors do not define good decision-making at the end-of-life and what this entails. Further, although defined *a priori*, the composite end-point used is not a widely accepted core outcome [9]; the use of such composite end-points has been criticised [10, 11]. Calculation of quality-adjusted life-years or mortality and quality-of-life outcomes may have been more appropriate.

The perceptions of patients and families were not assessed in this study; a more holistic approach including these key stakeholders could have led to a more insightful analysis. In practice, ethical decision-making within modern healthcare settings should encompass the experiences of patients, families and wider society as part of good medical practice. Therefore, tools aiming to comprehensively assess the “ethical climate” of a given healthcare setting should reflect this by being more patient-centred [12]. Moreover, this highlights the difficulty of addressing subjective, qualitative issues such as the “ethical climate” of ICUs using quantitative methods alone.

Resource availability plays a fundamental role in ethical clinical decision-making, in the context of allocating a scarce and finite resource. For example, the UK has a comparatively lower number of ICU beds per 100000 population for a high-income country (*e.g.* five versus 25 beds per 100000 in the UK compared to the USA) [13]. The study authors adjusted for such factors, but we would argue that national, regional and local contextual factors from both within and outside ICUs play a significant role and that their quantitative approach should have been augmented with qualitative methods. This may have aided assessment of the degree to which contextual factors such as ICU resourcing [14], as well as patient and parent team expectations of outcomes, affect admission decisions and timing of treatment-limitation decisions.

Implications for practice

As an illustrative example: idiopathic pulmonary fibrosis (IPF) is a respiratory pathology with poor prognosis and a limited role for mechanical ventilation at advanced stages [15, 16]. Occasionally, selected patients are referred to the ICU for ventilator support in acute exacerbations and terminal phases of the condition, despite data suggesting persistently poor outcomes [15, 17]. British guidelines on IPF from the National Institute for Health and Care Excellence recommend that discussions around mechanical ventilation and potential outcomes should be had with

patients, families and carers 3–6 months following diagnosis or sooner if clinically indicated [18]. In practice, tensions can arise between parent treating teams and ICU teams that may have differing views on the merits of IPF treatment elements, *e.g.* noninvasive ventilation. Such tensions can cause delay or avoidance of team conversations relating to patient care, resulting in intermediary measures such as high-flow oxygen being used. Subsequent “mission creep” can arise in terms of escalating burdens of care, leading to mismatched expectations between clinicians, patients and families [19]. The wider UK National Health Service Constitution places patient-centred care as the guiding principle of best healthcare practice [20]. With this in mind, one could conclude that the study’s approach to “ethical climate” is too narrow, and requires input from the wider healthcare team, patients and families. The perceived benefit of prolonged life may be observed in isolation and the harms of intensive care interventions not considered. Better understanding of such treatments is crucial for shared decision-making and the promotion of ethical principles, including justice, beneficence, nonmaleficence and autonomy [21]. There should be a move away from paternalistic practice to more holistic approaches that better encourage collaboration between treating clinicians, allied

health professionals, patients and potentially, palliative care services.

Conclusion

The paper by BENOIT *et al.* [2] attempts to provide quantitative evidence that “ethical climate” impacts on patient outcomes. This provides a useful contribution to the debate around how we create ethical environments that foster open patient communication and inclusion. The study highlighted the challenge of end-of-life decision-making in the face of significant clinical uncertainty in the ICU, and the moral, emotional and personal challenges often placed on clinicians. Where to draw the line in terms of what is considered excessive care will become an increasingly important issue as the forces of technical advancement with improved survival compete with those of limited healthcare budgets. Further research supported by dialogue between patients and the wider healthcare team is vital. Quantitative methods used in isolation are insufficient to answer the question of what level of care is appropriate, as this involves assessing qualitative factors such as pain and suffering at the end of life. A stronger qualitative stream to better inform results would have been a valuable addition to this paper.

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Conflict of interest

None declared.

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