The Bioscan
AN INTERNATIONAL QUARTERLY JOURNAL OF LIFE SCIENCES
21(1): 653-660, 2026
www.thebioscan.com

Humanisation of Care in Intensive Care Units: A Systematic Review of the Literature

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DOI: 10.63001/tbs.2026.v21.i01.pp653-660

Keywords
Humanisation, intensive care unit, patient centered care, family centered care.

Received on:

21-11-2025

Accepted on:

16-12-2025

Published on:

27-01-2026

ABSTRACT

Introduction: Humanisation of care in intensive care units (ICUs) has emerged as a crucial dimension of patient-centred medicine, addressing the psychological, emotional, and relational needs of critically ill patients and their families. Traditional ICU care often prioritises physiological stabilisation, but recent research highlights the importance of dignity, effective communication, and family involvement to improve overall outcomes. **Objective:** This systematic review aims to analyse international studies on interventions that promote humanised care in ICUs, focusing on communication, family engagement, psychological support, and innovative technologies to enhance patient and family experiences. **Material and Methods:** A systematic search was conducted targeting original international studies investigating humanisation strategies in ICU settings. Nine studies were selected based on relevance, methodological quality, and alignment with the PICO framework: ICU patients (P), humanisation interventions (I), standard ICU care (C), and psychological, cognitive, or relational outcomes (O). Nine articles published between 2005 and 2024 were included for analysis. **Results and Discussion:** Interventions such as structured communication protocols, family diaries, virtual reality for cognitive and emotional support, and discharge education programmes were found to enhance communication, family satisfaction, and psychological well-being. However, effects on anxiety and depression varied. Barriers to consistent implementation included staffing shortages and organisational culture. The integration of technologies such as virtual reality showed promising potential but requires larger-scale validation. **Conclusions:** Humanising ICU care enriches the critical care experience by fostering dignity, empathy, and collaboration among patients, families, and healthcare teams. While challenges remain, embedding these principles into ICU culture and practice can enhance recovery and resilience, highlighting the need for ongoing research and systemic commitment to compassionate critical care.

1. INTRODUCTION

Intensive Care Units (ICUs) are highly specialised environments designed for the continuous monitoring and treatment of critically ill patients. They are typically characterised by advanced technological density, stringent protocols, and frequent use of invasive interventions. While these elements are indispensable for sustaining life, they also foster conditions that may inadvertently lead to fragmented care, impersonality, and the dehumanisation of clinical practice (Almerud et al., 2007).

Within such contexts, essential subjective dimensions such as communication, interpersonal connection, emotional support, and active listening are often relegated to the background, potentially undermining the physical and psychological well-being of both patients and their families (Latvala, Lehtonen & Pietilä, 2014).

The scientific literature consistently highlights the adverse consequences of ICU admission, including heightened anxiety, fear, perceptions of lost autonomy, delirium, and near-death experiences. These effects are frequently intensified by a lack of meaningful interaction with healthcare professionals, prolonged social isolation, and restricted family presence (Davidson et al., 2017). Considering these challenges, there is an increasing imperative to reconfigure models of care, integrating more humanised approaches that prioritise dignity, autonomy, and active patient participation within the therapeutic process.

The humanisation of intensive care encompasses a set of person-centred practices that recognise not only the biomedical imperatives of treatment but also the emotional, social, cultural, and spiritual dimensions of the individual (World Health Organization [WHO], 2021). Common strategies include strengthening communication among healthcare professionals, patients, and families; implementing flexible visiting policies; employing non-pharmacological interventions to mitigate suffering; encouraging shared decision-making and adapting the physical environment to enhance comfort and privacy (Sasangohar et al., 2020).

International bodies, such as the Society of Critical Care Medicine (SCCM), have underscored the centrality of family- and patient-centred approaches as an essential dimension of ethical, safe, and high-quality intensive care (SCCM, 2016). Evidence indicates that such practices not only foster more positive hospital experiences but are also associated with improved clinical outcomes, shorter lengths of stay, reduced post-traumatic stress and increased satisfaction among patients, families and healthcare teams alike (Davidson et al., 2017).

Nevertheless, despite the growing recognition of the value of humanisation in critical care, its practical implementation continues to face considerable challenges, particularly of a structural, cultural, and organisational nature. Barriers such as workforce shortages, the predominance of technical demands, the absence of dedicated protocols, and institutional resistance to paradigm shifts frequently undermine the consolidation of these initiatives (Alvarez et al., 2022).

Against this backdrop, the present systematic review seeks to identify, critically analyse, and synthesise the available international evidence concerning the humanisation of ICU care. Specifically, it focuses on the strategies employed, the benefits reported for patients, families, and healthcare professionals, and the obstacles hindering implementation. The ultimate aim is to provide a robust theoretical and practical foundation to support the advancement of more ethical, empathetic, and person-centred critical care.

2. MATERIALS AND METHODS

A systematic review is one of the most rigorous methodologies in evidence-based practice, enabling the structured and critical synthesis of research findings on a defined topic (Mendes et al., 2008; Benefield, 2003). In this review, the process was guided by the PICO framework (Population, Intervention, Comparison and Outcomes), which refined the research question and ensured the systematic retrieval of relevant studies across multiple databases, thereby reducing the inclusion of irrelevant evidence (Santos, Pimenta and Nobre, 2007). The population considered included adult patients admitted to Intensive Care Units (ICUs), their relatives and the healthcare professionals working within these settings. The interventions examined comprised humanisation strategies such as enhanced communication, family participation, environmental adjustments, patient-centred care and staff-support initiatives. These were compared with standard care or the absence of explicit humanisation strategies, particularly in qualitative studies. The outcomes of interest related to patient and family experience, emotional wellbeing, quality of care, satisfaction, staff wellbeing and organisational culture.

The adoption of PICO strengthened the methodological focus of the review and supported the systematic identification, appraisal and synthesis of the evidence. All procedures followed PRISMA 2020 guidelines to ensure transparency and replicability. A structured protocol guided the search process, conducted between April and June 2025 using the EBSCO and B-ONline search engines and an extensive range of databases, including CINAHL Plus, PubMed/MEDLINE, LILACS, SciELO, Web of Science, ScienceDirect and others. The search strategy employed the descriptors “Humanisation”, “Intensive care unit”, “Patient-centred care” and “Family-centred care”. Studies failing to meet the predefined inclusion criteria were excluded through a systematic screening procedure.

Despite the methodological care applied, certain limitations must be acknowledged. The review lacked explicit, detailed inclusion and exclusion criteria beyond the general parameters of the PICO framework, which may have affected the consistency of study selection. The number of reviewers involved in screening and data extraction was not reported, nor was it indicated whether disagreements occurred or how they were resolved, limiting transparency and reproducibility. Furthermore, the methodological quality of the included studies was not assessed using a validated appraisal tool, and the specific limitations of each study were not examined, potentially affecting the overall strength and reliability of the synthesised evidence.

3. RESULTS

The study comprised nine articles, which are summarised in Table1.

Article Title	Authors / Year	Detailed Main Results
Humanised Care in Indian ICUs: A Grounded Theory Approach	Paul et al., 2024	Qualitative study with 32 interviews (patients, relatives, professionals). Developed the “dignity care” theory, highlighting four pillars: active listening, patient autonomy, comprehensible communication, and family involvement. Reports indicated reduced fear, increased trust, and emotional satisfaction. Demonstrated positive impact on coping with hospitalisation and perceived care quality.
VR-Based Early Neurocognitive Stimulation in ICU Survivors	Navarra-Ventura et al., 2021	Pilot RCT (n=40). ICU patients received cognitive stimulation via virtual reality (15 mins/day for 5 days). Intervention group showed significant improvement in working memory (Digit Span, p=0.03), reduced anxiety (HADS-A mean 6.2 vs 8.4, p=0.02), and depression (HADS-D mean 5.3 vs 7.9, p=0.04). No adverse effects reported; patients found intervention useful and enjoyable. VR (virtual reality)
Humanising the ICU: Stakeholder Perspectives	Basile et al., 2021	Qualitative study with 71 participants (40 patients/relatives, 31 professionals). Identified five central categories: staff empathy, respect for individuality, clear communication, family presence, and welcoming environment. Professionals noted structural limitations (long shifts, staffing shortages) hinder consistent humanised care. Recommended institutionalising humanisation protocols.
Implementing an intensive care unit (ICU) diary program at a large academic medical center: Results from a randomized control trial	Sayde et al., 2020	RCT (n=35). Intervention comprised family-maintained ICU diaries plus educational material. After 3 months, the intervention group had significantly lower PTSD scores (IES-R mean 21 vs 33, p=0.03), anxiety (HADS-A mean 6.2 vs 9.4, p=0.04), and depression (HADS-D mean 5.1 vs 7.8, p=0.02).

Article Title	Authors / Year	Detailed Main Results
evaluating psychological morbidity associated with critical illness		Intervention was well accepted and helped patients reconstruct critical event memories.
The DREAMS Project: Improving ICU Experience with Virtual Reality	Ong et al., 2019	Pilot study (n=59) with surgical ICU patients. Daily 20-minute VR relaxation sessions resulted in reduced anxiety and depression (Likert scale anxiety mean dropped from 6.8 to 4.2, $p<0.05$). All patients found VR useful; no adverse events reported. Suggested as a safe, viable emotional support in ICU.
Questions to Improve Family–Staff Communication in the ICU	Azoulay et al., 2018	RCT (n=302). Structured question lists provided to relatives to guide staff communication. No significant difference in medical understanding on day 5 ($p=0.16$), nor in anxiety or depression. However, relatives using the list reported clearer conversations and greater participation in care. 83% found the list helpful.
A Randomised Trial of a Family-Support Intervention in ICUs (PARTNER Trial)	White et al., 2018	Multicentre RCT (n=1,420). Intervention included structured meetings with medical staff, printed materials, and nurse facilitators. Results showed improved communication quality (QOC +6.4 points, $p=0.001$), reduced ICU length of stay (6.7 vs 7.4 days, $p=0.045$), but no difference in anxiety or depression at 6 months. Families reported increased confidence in clinical decisions.
Evaluating the feasibility and effectiveness of a critical care discharge information pack for patients and their families: a pilot cluster randomised controlled trial	Bench et al., 2015	Cluster RCT (n=158). Educational package and post-ICU consultation. Intervention group showed significant reduction in anxiety (HADS-A −2.3 points, $p<0.01$) and depression (HADS-D −1.9 points, $p<0.01$), with improved post-discharge adaptation. Associated with fewer hospital consultations in the following 4 weeks.
Symptoms of anxiety and depression in family members of intensive care unit patients before discharge or death. A prospective multicenter study	Pochard et al., 2005	Prospective observational study (n=76 relatives). 73% had clinical anxiety (HADS-A ≥8), 35% had depression (HADS-D ≥8). 54% did not fully understand diagnosis or treatment. Poor communication was the main cause of emotional distress, highlighting urgent need for structured communication strategies.

4. DISCUSSION

The humanisation of care in intensive care units has increasingly been recognised as an indispensable component of high quality healthcare. It complements traditional biomedical approaches that prioritise physiological stabilisation with a broader focus on psychological well-being, dignity and the relational dimensions of care. Critically ill patients and their families face profound emotional, cognitive and social challenges that often remain insufficiently addressed within conventional intensive care models. Over the past two decades, a substantial and growing body of research has shown that promoting humanised care is essential not only for improving patient and family experience but also for supporting better clinical outcomes. This demonstrates the complex interaction between compassionate practice and evidence based medicine. The studies included in this review, spanning publications from 2001 to 2024, reveal a wide range of strategies to strengthen humanisation in critical care and highlight both promising innovations and persistent organisational and systemic barriers.

Paul et al. (2024) propose a grounded theory of dignity care, articulated through four central pillars which include active listening, respect for patient autonomy, clear communication and meaningful involvement of family members. This conceptualisation aligns closely with wider critical care literature which consistently highlights emotional support and human connection as essential features of a humanised intensive care environment (Molloy et al., 2019; Kynoch et al., 2016). Similarly, Basile et al. (2021) and Azoulay et al. (2018) underline the importance of empathy and communication while noting structural challenges such as insufficient staffing, lack of time and restrictive institutional cultures that impede the consistent implementation of humanisation strategies. Together, these findings illustrate the importance of embedding relational and emotional dimensions at the centre of critical care practice.

Effective communication emerges as a recurring and dominant theme. The randomised controlled trial by Azoulay et al. on structured question lists for family members improved perceived clarity and engagement in communication, although it did not result in statistically significant reductions in anxiety or depression. This finding is consistent with wider evidence suggesting that communication focused interventions may not directly reduce psychological distress, yet they significantly enhance family participation, satisfaction and shared decision making, which are central components of patient centred care (Curtis et al., 2016; Kentish Barnes et al., 2015). Earlier work by Pochard et al. (2001) showed a high prevalence of anxiety and depression among family members, strongly associated with inadequate communication, a challenge that remains relevant today. Taken together, these studies reinforce the essential role of structured, transparent and compassionate communication within humanised intensive care practice.

Technological innovation is increasingly recognised as a valuable facilitator of humanisation. Ong et al. (2019) demonstrated that virtual reality applications can reduce anxiety and depression while improving working memory and cognitive engagement. These findings are complemented by Navarra Ventura et al. (2021), whose study on virtual reality based early neurocognitive stimulation in intensive care survivors provides further evidence that immersive technologies can support cognitive recovery, reduce emotional distress and restore a sense of agency during critical illness. This growing body of evidence supports the view that technology, when ethically and thoughtfully implemented, can mitigate sensory deprivation, delirium and psychological distress within the highly medicalised intensive care environment (Wilcox et al., 2020; Garrett et al., 2019). Nevertheless, these promising findings require replication in larger studies conducted across multiple centres, with long term follow up, in order to fully understand their sustained effectiveness and wider applicability.

Family centred strategies remain a fundamental element of humanised intensive care. Sayde et al. (2020) found that the use of intensive care diaries significantly reduced post-traumatic stress symptoms by helping patients reconstruct fragmented memories of critical illness. This narrative approach is consistent with earlier research demonstrating the therapeutic value of structured reflection and active family participation in psychological recovery (Jones et al., 2010). The PARTNER trial by White et al. (2018) also reinforces the importance of structured family support, showing improvements in communication quality and a reduction in length of stay in intensive care, although no significant long term reductions in anxiety or depression were observed. These findings indicate that although family involvement is essential, it must be complemented by multi component interventions that extend beyond the period of intensive care in order to adequately address long term psychological recovery.

Post discharge interventions also play an essential role in supporting humanised care. Bench et al. (2015) demonstrated that structured education and follow up significantly reduced anxiety and depression after discharge, facilitating a smoother transition to everyday life. These findings align with recommendations that call for integrated care pathways covering the entire continuum of critical illness

(Needham et al., 2012; Rawal et al., 2017). Humanisation therefore cannot be restricted to the intensive care environment alone but must encompass transitional care, rehabilitation and long term recovery.

Despite these significant advances, systemic and organisational challenges continue to hinder the consistent implementation of humanised care. Basile et al. (2021) and Fernandez et al. (2018) identify chronic staffing pressures, time constraints and restrictive organisational cultures as key obstacles. Sustainable humanisation requires embedding its principles within institutional policies, staff education and training programmes, performance evaluation frameworks and quality improvement initiatives. Individual interventions, although valuable, are insufficient to create lasting cultural change without coordinated and strategic organisational support.

From a methodological perspective, the studies reviewed display considerable diversity in design, sample size and outcome measures, which may limit the extent to which findings can be generalised. Several qualitative studies and early phase clinical trials provide important exploratory insights but require replication and expansion in order to strengthen the evidence base (Paul et al., 2024). Future research should prioritise larger studies conducted across multiple centres, employing standardised psychological, cognitive and patient centred outcome measures, together with longitudinal follow up to assess long term effects.

Collectively, this international body of research demonstrates that the humanisation of intensive care is a complex and multidimensional undertaking that integrates compassionate communication, family involvement, psychological support and the thoughtful use of innovative technology. Effective implementation requires robust organisational support and coherent system wide strategies to overcome ingrained structural barriers. Continued research, particularly using longitudinal and mixed methods designs, is needed to refine interventions, inform policy development and ensure that dignity, compassion and person centred values remain central to critical care practice. Ultimately, placing humanisation at the core of intensive care medicine improves patient and family experience, strengthens resilience, supports clinical outcomes and reinforces trust during one of the most vulnerable periods of human life.

Although the studies included in this review reported predominantly positive outcomes, this does not mean that negative or unintended effects are absent. The apparent lack of negative results may reflect publication bias, in which studies with favourable findings are more likely to be published than those reporting neutral or adverse outcomes. Several studies also exhibited methodological limitations, including small sample sizes, diverse designs and outcome measures that may not have been sensitive enough to detect negative effects. It is also possible that interventions were implemented in ways that reduced the likelihood of harm, or that potentially detrimental consequences, such as increased workload for staff or emotional strain on family members, were not systematically evaluated or reported. For these reasons, the predominance of positive findings should be interpreted cautiously, and future research should explore both the benefits and the unintended challenges associated with humanisation initiatives in critical care.

5. CONCLUSION

Humanising care in intensive care units represents a fundamental shift in the philosophy of critical care, moving beyond conventional clinical intervention towards a holistic commitment to preserving dignity, autonomy and emotional well-being for critically ill patients and their families. International evidence increasingly affirms that interventions centred on effective communication, structured family engagement, psychological support and the thoughtful integration of innovative technologies, including immersive virtual reality, play a pivotal role in transforming the intensive care environment from one often marked by isolation and distress into a space characterised by empathy, collaboration and compassionate partnership.

Person centred approaches such as shared decision making, narrative based interventions and structured communication protocols have demonstrated significant benefits in enhancing psychological well-being, fostering trust and promoting resilience across the continuum of critical illness. Technological innovations, particularly immersive virtual reality, have emerged as valuable complements to traditional care, mitigating cognitive and emotional stress and contributing to a more holistic and humane patient experience.

Yet systemic and organisational barriers remain. Persistent staffing constraints, the demands of highly technical workflows and deeply rooted cultural norms continue to hinder the consistent application of humanisation practices. Meaningful and sustainable progress will require the integration of these principles into institutional policies, intensive care protocols and professional development programmes, ensuring that humanisation becomes embedded not as an adjunct but as a core component of critical care practice.

Future research should prioritise the refinement and validation of multifaceted interventions that integrate technological, psychological and relational dimensions of care. Large scale longitudinal studies across multiple centres are essential to determine the enduring impact of these approaches and to inform robust, evidence based guidelines. Ultimately, placing humanised care at the heart of intensive medicine enriches the experiences of patients and their families, strengthens recovery and resilience, and reinforces trust at a time when human vulnerability is at its greatest.

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