

Marine Pollution from Microplastics and Pharmaceutical Products as a Potential Threat to the Manufacturing of Marine-derived Anti-cancer Drugs in South Africa

Mpho Paulos Bapela

Senior Lecturer, University of Limpopo, South Africa

Abstract

Critically ill patients are at risk of Post-Intensive Care Syndrome, including psychological sequelae. Intensive Care Unit (ICU) diaries can improve patients' psychological health and benefit relatives and clinicians, yet implementation and uptake remain limited. This review aims to explore the barriers and facilitators of implementing ICU diaries experienced by clinicians and relatives of adult ICU patients. A qualitative synthesis was conducted using The Enhancing Transparency in Reporting the Synthesis of Qualitative Research (ENTREQ) framework. Four databases (CINAHL, MEDLINE, Web of Science, Scopus) were systematically searched from inception to May 2025 and supplemented by reference list searching. Studies with qualitative data on clinicians and relatives' experiences of initiating, writing in, reading or handing over diaries were included. The CASP checklist, JBI checklist and GRADE Confidence in the Evidence from Reviews of Qualitative Research (CERQual) were used for quality appraisal. Thomas and Harden's thematic synthesis method was applied for analysis. Fifteen studies were included in the review. Five main themes were identified: (1) Care for patients and their network and conviction of diary value as facilitators; (2) practical knowledge and resources as facilitators; (3) emotional overwhelm and vulnerability as barriers (4) good collaboration amongst clinicians and relatives as facilitators, and (5) organisational support and diary usability as facilitators. ICU diary implementation is influenced by personal, interpersonal, and systemic factors. Personal motivations serve as strong facilitators and barriers appear modifiable through systemic support. Early education, practical and emotional support, and organisational commitment may improve diary implementation and promote stakeholders' professional or post-traumatic growth.

Index Terms

Cancer; Marine-Derived Drugs; Microplastics; Pharmaceutical Products