



# ICU Diary Effect on Anxiety, Depression, and Posttraumatic Stress in Critically Ill Patients and Their Family Members: An Integrative Literature Review

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## BACKGROUND

- Greater than **5 million** patients are admitted to Intensive Care Units (ICUs) within the United States yearly (6).
- ICU patients are susceptible to hallucinations, delusions, and misconceptions of their environment, recognized as delirium (10, 12).
- ICU hospitalization is stressful for patients and family members, increasing their risk of anxiety, depression, and posttraumatic stress—psychological indications of post-intensive care syndrome (see Figure 1).
- ICU diaries, first introduced in Denmark in the 1980s, provide a detailed narrative of a patient's ICU stay, used to help fill in memory gaps, clarify unrealistic experiences, and humanize the care they received.
- Although ICU diaries have been used in other countries for decades, program implementation in the U.S. is comparatively new.

### Post-Intensive Care Syndrome (PICS)

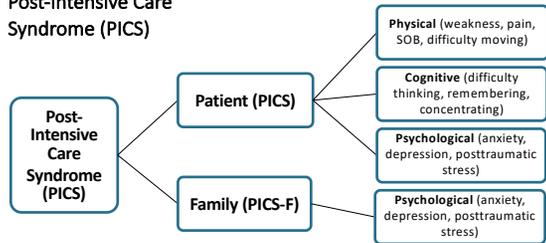


Figure 1. Breakdown of PICS and associated manifestations; SOB = short of breath

### PICO Question:

Does the use of ICU diaries reduce the long-term risk of anxiety, depression, and posttraumatic stress for critically ill patients who are admitted to the ICU and their family members?

### Problem/Goal:

Determine if ICU diaries are effective in reducing the psychological manifestations of PICS post-ICU discharge while exploring program development and implementation in the U.S.

## METHODS

- An integrative literature review was systematically conducted by searching the following databases: CINAHL Complete, Cochrane Database of Systematic Reviews, Healthsource: Nursing/Academic Edition, MEDLINE, and PubMed.
- **Search terms:** "ICU diary", "intensive care unit diary", "intensive care diary", "anxiety", "depression", "posttraumatic stress", and "post-intensive care syndrome".
- **Inclusion criteria:** studies that examined the use of ICU diaries, published within the last five years (2017-2022), peer-reviewed, full-text, and written in the English language.
- **Main observation indicators:** anxiety, depression, and posttraumatic stress in patients and their family members.
- Included studies were quantitative and qualitative in nature, taking place in adult ICU settings. Participants (patients/family) were 18+ years of age, male or female, and participated in an ICU diary program.

## What's Inside an ICU Diary?

Figure 2. "Meet the Patient" page (A) and "Get to Know Me" page (B) included in an ICU diary (11).

Figure 3. Participation agreement form (A) and diary acceptance form (B) included in an ICU diary (11).

## RESULTS

- Initially, 33 articles were identified. After screening and removing duplicate and irrelevant articles, 16 were included.
- Of the 16 articles, 7 were systematic reviews including either meta-analysis or qualitative data synthesis. The other 10 articles consisted of RCTs, cross-sectional studies, and evidence reviews.
- Many variations of ICU diaries exist, most containing a patient introduction section and participation agreement (see Figures 2 and 3).
- The average follow-up period after discharge from the ICU was 3 months. Few studies examined long-term effects (3, 8).
- Qualitative studies and systematic reviews reported that ICU diaries decreased anxiety, depression, and posttraumatic stress in patients and their family members (1, 2, 9, 12, 13).
- Some studies reported mixed results, though most have shown significant improvement in health-related quality of life (3, 4, 5, 8).
- Common barriers include liability, patient privacy, program development, and sustainability (7, 10, 11).

## DISCUSSION

- ICU diaries support holistic nursing care with a focus on the psychological and emotional recovery of critically ill patients and their family members following ICU discharge.
- This intervention is supported by the evidence as a tool to improve communication, help patients bridge the gap between imagination and reality, while fostering connectivity with family members.
- Program development and implementation has been challenging in the U.S. due to several barriers. It is a process that requires careful planning and a combined effort by all staff members, with adequate oversight and follow-up to promote sustainability (see Figure 4).

### ICU Diary Program Development Process

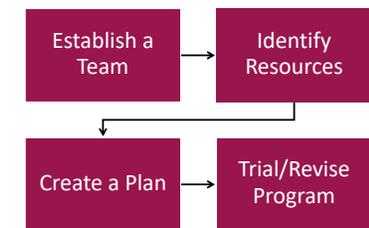


Figure 4. Major steps involved in the process of designing and implementing an ICU diary program.

## CLINICAL IMPLICATIONS

- **Practice Recommendations/Change:**
  - ❖ All critically ill patients at high risk for developing PICS (e.g., mechanical ventilation > 48 hours, delirious or at risk for delirium, or an ICU stay > 3 days) should receive an ICU diary. Properly trained healthcare professionals and family members should contribute daily entries. The patient must not receive the diary post-discharge without debriefing by a healthcare professional.
- ICU diaries should be only one aspect of an in-depth ICU recovery program designed to reduce the psychological manifestations of PICS in patients' and family members post-ICU discharge (7, 12).

## FUTURE DIRECTIONS

- Additional studies should include multi-center trials with larger sample sizes and at least 6 months of follow-up post discharge (3, 8).
- A standardized program development and implementation approach must be created to make the establishment of ICU diary programs in hospitals across the U.S. more feasible.
- The next step of this project includes forming a dedicated, knowledgeable team who is interested in developing and implementing an ICU Diary Program in the CVCC at Dartmouth-Hitchcock.

## ACKNOWLEDGEMENTS

I would like to thank Professor Cole, Daisy Gama, RN, and Vida Dinsdale, RN for their guidance and support throughout this project.

