

INPLASY PROTOCOL

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Effects of family engagement and empowerment strategy on delirium in ICU patients: a meta-analysis

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Review question / Objective: To evaluate the effect of family engagement and empowerment strategy on prevention and treatment of delirium in ICU patients. **P:** adult critically ill patients **I:** family engagement and empowerment strategy **C:** usual care **O:** incidence of delirium, duration of delirium, ICU length of stay, ICU acquired infection, family satisfaction **S:** randomized controlled trials or quasi-experience studies.

Condition being studied: Delirium is a syndrome with acute fluctuations in cognition and consciousness, which will not only lead to varieties of adverse clinical outcomes in patients, but also cause great burden to their family members. Family engagement and empowerment strategy aims to meet the social and psychological needs of patients and their families by giving family members power to participate in the prevention and treatment of patients' disease, and promote the formation of good partnership among patients, family members and medical staff. Previous studies have showed that this strategy can not only reduce the incidence of delirium, improve patients' clinical outcomes and long-term prognosis, but also improve the self-efficacy of family members and their satisfaction with medical work. However, limited by numerous factors, family engagement and empowerment strategy is carried out slowly in ICU patients, and the existing research conclusions exist inconsistencies.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 04 May 2022 and was last updated on 04 May 2022 (registration number INPLASY202250019).

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Conflicts of interest:
None declared.

INTRODUCTION

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METHODS

Search strategy: PubMed :
 (((("delirium"[Title/Abstract]) OR ("delirium"[MeSH Terms])) OR ("ICU syndrome"[Title/Abstract] OR "intensive care unit syndrome"[Title/Abstract])) AND ("family center"[Title/Abstract] OR "family centre"[Title/Abstract] OR "caregiver"[Title/Abstract] OR "care giver"[Title/Abstract] OR "carer"[Title/Abstract] OR "family intervention"[Title/Abstract] OR "family empowerment"[Title/Abstract] OR "family engagement"[Title/Abstract] OR "family involve"[Title/Abstract] OR "famil"[Title/Abstract])) AND (("intensive care"[Title/Abstract] OR "ICU"[Title/Abstract] OR "critically ill"[Title/Abstract] OR "critical illness"[Title/Abstract] OR "critical care"[Title/Abstract] OR ("intensive care units"[MeSH Terms]))).

Participant or population: Adult critically ill patients.

Intervention: Family engagement and empowerment strategy.

Comparator: Usual care.

Study designs to be included: Randomized controlled trials or quasi-experience studies.

Eligibility criteria: Inclusion criteria: 1. Participants must be adult patients in ICU , age ≥ 18 years ; family caregivers , age ≥ 18 years , are individuals who provide support to patients. 2. The control group was given usual care for ICU patients while the intervention group implemented family engagement and empowerment strategies on the basis of usual care . The article needs a detailed description of specific intervention measures. 3. The type of study must be randomized controlled trial (RCTs) and quasi-experience studies, and the languages are limited to Chinese and English. Exclusion criteria: 1.Intervention measures are family engagement and empowerment strategies combined with other intervention measures.2.The full text is not available, and the information provided in the abstract is insufficient.3.The literature quality rating is C.

Information sources: Pubmed, embase, Cochrane library, web of science, CINAHL, PsycINFO, CNKI, CBM, Wanfang database, VIP.

Main outcome(s): Incidence of delirium, duration of delirium. Delirium needs to be assessed using validated tools.

Additional outcome(s): ICU length of stay, ICU acquired infection, family satisfaction.

Data management: The retrieved literature was imported into Endnote software for de duplication. Two researchers screened the literature and extracted the data according to the inclusion and exclusion criteria. In case of disagreement, the opinions of the

third researcher were discussed or consulted.

Quality assessment / Risk of bias analysis:

1. Cochrane risk of bias tool;
2. JBI Systematic Reviews Checklist for quasi-randomized controlled trial.

Strategy of data synthesis: Revman 5.4 was used for meta-analysis. Odds ratio (OR) was used for the dichotomous variable, and weighted mean difference (WMD) or standardized mean difference (SMD) was used for the continuity variable, and its 95% CI was provided. If the heterogeneity among studies is acceptable, the fixed effect model is selected for analysis; If in the presence of heterogeneity, the random effect model is selected and the source of heterogeneity is further analyzed.

Subgroup analysis: If in the presence of significant heterogeneity, subgroup analysis will be performed according to the possible source of heterogeneity.

Sensitivity analysis: Sensitivity analysis will be performed to evaluate the robustness of the results by excluding high-risk studies.

Language: Chinese, English.

Country(ies) involved: China.

Keywords: delirium; ICU; family engagement and empowerment.

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