RIASE
REVISTA IBERO-AMERICANA DE SAÚDE E ENVELHECIMENTO
REVISTA IBERO-AMERICANA DE SALUD Y ENVEJECIMIENTO

EFFECT OF THE ICU DIARY ON THE PREVENTION OF POST TRAUMATIC STRESS DISORDER: A SYSTEMATIC LITERATURE REVIEW

EFEITO DO DIÁRIO DA PESSOA INTERNADA EM UCI NA PREVENÇÃO DE DISTÚRBIO DE STRESS PÓS-TRAUMÁTICO: UMA REVISÃO SISTEMÁTICA DA LITERATURA

EFECTO DEL DIARIO DE HOSPITALIZACIÓN DE LA UCI EN LA PREVENCIÓN DEL TRANSTORNO DE ESTRÉS POSTRAUMÁTICO: UNA REVISIÓN SISTEMÁTICA DE LA LITERATURA

Ana Sofia Correia[1], Alice Ruivo[2].

[1]Hospital Center University of the Algarve EPE, Portimão, Portugal,
[2]Polytechnic Institute of Setúbal. Member of the CIIAS, Portugal.

Received/Recebido: 2023-05-21 Accepted/Aceite: 2023-09-06 Published/Publicado: 2023-11-29

DOI: http://dx.doi.org/10.60468/r.riase.2023.9(4).613.8-22

©Authors retain the copyright of their articles, granting RIASE 2023 the right of first publication under the CC BY-NC license, and authorizing reuse by third parties in accordance with the terms of this license.

©Os autores retêm o copyright sobre seus artigos, concedendo à RIASE 2023 o direito de primeira publicação sob a licença CC BY-NC, e autorizando reuso por terceiros conforme os termos dessa licença.

ABSTRACT

Introduction: Hospitalization in Intensive Care Units is a stressful experience for the inpatient and the family/caregiver due to multiple factors. Many of these, end up developing symptoms of Post-traumatic Stress Disorder, which if not diagnosed and treated in a timely manner, have serious consequences for returning to daily life and for quality of life. An empirical strategy to prevent Post-traumatic Stress Disorder is the creation of a narrative to reconstruct the period of Intensive Care Units admission and make sense of the defragmented and delusional memories.

Aim: To study whether performing the Patient Diary in an Intensive Care Units is effective in preventing the development of Post-traumatic Stress Disorder symptoms.

Methods: A systematic literature review was carried out based on the analysis of 5 articles after a research process in the scientific database EBSCOhost, using the descriptors: "Critical Care"; "Diary" and "Stress Disorders, Post Traumatic"; and application of several exclusion criteria. The JBI Critical Appraisal Tools were applied to assess the articles' reliability, relevance and results.

Results/Conclusions: Preventing the occurrence of Post-traumatic Stress Disorder symptoms should be a focus of attention of intensive care medicine health professionals. The performance of Patient Diary in Intensive Care Unit is a dynamic strategy in this area whose quantitative benefit is not statistically significant, but, qualitatively, it's a strategy highly appreciated by the person and the family/caregiver. To enhance its effect, it should be integrated simultaneously with other strategies.

Keywords: Intensive Care; Diary; Family; Person in Critical Situation; Post-traumatic Stress Disorder.

RESUMO

Introdução: A hospitalização em Unidades de Cuidados Intensivos (UCI) é uma experiência stressante para a pessoa internada e para a família/cuidador devido a múltiplos fatores. Muitos destes, acabam por desenvolver sintomas de Stress Pós-Traumático (SPT), que se não forem diagnosticados e tratados atempadamente, geram consequências graves no regresso ao quotidiano e na qualidade de vida. Uma estratégia empírica para prevenir o SPT é a criação de uma narrativa para reconstruir o período de internamento em UCI e dar sentido às memórias desfragmentadas e delirantes.

Objetivos: Avaliar se a realização do Diário da Pessoa Internada (DPI) em UCI é eficaz na prevenção do desenvolvimento de sintomas de SPT.

Metodologia: Realizou-se uma revisão sistemática da literatura, com base na análise de 5 artigos, após processo de pesquisa na base de dados científica EBSCOhost, utilizando os descritores: "Critical Care"; "Diary" e "Stress Disorders, Post Traumatic"; e aplicação de vários critérios de exclusão. Foram aplicadas as JBI Critical Appraisal Tools para avaliar a confiabilidade, relevância e resultados dos artigos.

Resultados/Conclusões: Prevenir a ocorrência de sintomas de SPT deve ser um foco de atenção dos profissionais de saúde de medicina intensiva. A realização do DPI em UCI é uma estratégia dinamizadora nessa área cujo benefício, a nível quantitativo, não é estatisticamente significativo, mas que, qualitativamente, é uma estratégia muito apreciada pela Pessoa e pela família/cuidador. Para potenciar o seu efeito, este deverá estar integrado em simultâneo com outras estratégias.

Palavras-chave: Cuidados Intensivos; Diário; Família; Pessoa em Situação Crítica; Stress Pós Traumático.

RESUMEN

Enquadramiento: La hospitalización en Unidades de Cuidados Intensivos es una experiencia estresante para la persona hospitalizada y para la familia devido a múltiples factores. Muchos de estos desarrollan síntomas de Trastorno de Estrés Postraumático, que si no se diagnostican y tratan a tiempo, acarrean graves consecuencias no quoditioano e en la qualidad de la vida. Una estrategia empírica para revenir el Trastorno de Estrés Postraumático es la creación deuna narrativa para reconstruir el período de hospitalización y dar sentido a las memorias fragmentadas y delirantes

Meta: Pretendemos estudiar si la realización del Diario de la Persona Hospitalizada es eficaz en la prevención del Trastorno de Estrés Postraumátic.

Metodología: Fue realizada una revisión sistemática de la literatura, a partir del análisis de 5 artículos, trans un proceso de búsqueda en la base de datos científica EBSCOhost, utilizando los descriptores: "Critical Care"; "Diary" y "Stress Disorders, Post Traumatic", y aplicación de varios criterios de exclusión. Se aplicaron las herramientas JBI Critical Appraisal Tools para evaluar la confiabilidad, relevancia y resultados de los artículos.

Resultados/Conclusões: Concluimos que la prevención del Trastorno de Estrés Postraumático debe ser un foco de atención para los profesionales de la salud, siendo el Diario de la Persona Hospitalizada una estrategia dinámica cuyo beneficio, cuantitativo no es estadísticamente significativo, pero cualitativamente es muy apreciado por la Persona y la familia. Para potenciar su efecto debe integrarse simultáneamente con otras estrategias.

Descriptores: Cuidados Intensivos; Diario; Familia; Persona en Situación Crítica; Trastorno de Estrés Postraumático.

INTRODUCTION

Post-traumatic stress disorder (PTSD) is a severe anxiety disorder that results from the experience or testimony of a traumatic situation[1]. This syndrome is characterized by the re-experience of the traumatic event through memories, dreams or nightmares; by avoiding spaces, people or situations that recall trauma[2]; hyperexcitation; difficulty sleeping; irritability and response to stimuli in startle for more than 30 days after the situation[1].

People who have had the experience of being in a critical situation admitted to Intensive Care Units (ICU) are particularly at risk of developing PTS disorder, due to the interventions and treatments to which they were submitted during the hospitalization period[3-4], as well as to the fact that they are in an unknown environment and the uncertainty regarding the diagnosis and prognosis[4]. The progress of intensive care treatments is associated with a decrease in mortality in both ICU and hospital, and the development of new strategies aimed at minimizing the negative effects of hospitalization in the ICU in the future of people[4] is urgent. This problem is increasingly the target of attention by health professionals in intensive care services because, when underdiagnosed, who develops PTSD disorder has serious consequences on the return to the quotient and quality of life, psychological, cognitive and functional problems[5], what can lead to increased use of health services and consequently costs for the National Health System[2]. The family/caregiver of people hospitalized in ICU, also focus on nursing care, are a population at risk for the development of PTSD symptoms because they are facing a situation that causes them anxiety, fear that the relative may die and uncertainty regarding the quality of life of both, after hospitalization[4,6].

There are risk factors that predispose to the development of PTSD symptoms, namely those related to the person himself and those related to ICU procedures. The knowledge of the existence of these factors is a tool for nurses to be able to detect early the person with greater susceptibility to the development of PTSD symptoms and to adopt redoubled measures in nursing care. The intrinsic factors are essentially related to the pre-existence of PTSD, personal history of depression and anxiety, being female and under 65 years old. Related to ICU hospitalization, risk factors are related to the administration of vasoactive medication, sedative and neuromuscular block, being subjected to invasive mechanical ventilation and invasive procedures, presenting delirium and agitation, having undergone mechanical containment[7], and finally the severity of the clinical situation and the length of ICU hospitalization[1]. All interventions performed in ICU are necessary and indispensable to clinical treatment, however, the daily review of all these interventions and their indispensable need is essential, strategies to reduce the consequences of such interventions.

One of the strategies that can be implemented in the context of hospitalization in ICU is the preparation of the ICU Diary. The ICU Diary is a written record by the entire multidisciplinary team, visits, family/caregiver and even the patient himself if in clinical conditions. Its construction must obey guiding guides to achieve the desired effect, which must contain details, in chronological order, about the hospitalization and the daily progress of the person. It helps the person to reflect, process and recover from the entire process of hospitalization, filling the memory gaps and giving meaning to confused and delusional memories[2]. The ICU Diary may also have a positive impact on PTSD symptoms in the family members/caregiver, as the family/caregiver feels more involved in care and with the multidisciplinary team, feeling better prepared to support the patient after discharge[8] or in the process of mourning[9].

The aim of this study is to evaluate whether the ICU Diary is effective in preventing the development of PTSD symptoms.

METHODOLOGY

In order to carry out this systematic review of the literature, according to JBI[10], a research question was prepared according to the PICO methodology (Population, Intervention, Comparison and Outcomes)[10]. The target population was defined as the critical patient in the context of hospitalization in ICU. The intervention under study is the performance of the ICU diary. Outcome is the effect of the use of the ICU diary in preventing the occurrence of PTS disorder in the person and family/caregiver, compared to patients who did not have it.

Thus, the research question formulated was "Will the ICU diary be effective in preventing PTSD of the person and family/caregiver?".

For the accomplishment of the scientific research it was used the database EBSCOhost – Research database in all databases and as descriptors the words "Critical care", "Diary" and "Stress Disorders, Post-Traumatic", all of them validated in the Medical Heading Subject (MeSH) and in the Health Sciences Descriptors (DeCS) and as bolean operator the "AND" among the descriptors. As expanders, we used the application of equivalent subjects, without full text and limited the research to articles published from 2017.

Fifty articles were obtained, to which exclusion criteria were applied, namely: only primary studies were selected and, within these, those that answered the problem question, understood in the time period from 2017, and whose population were adults. First, they were eliminated after reading the title, after the abstract and finally the full reading of them. The

study analysis process ended with 5 articles included in this systematic literature review as illustrated by the Flow Diagram↗ (adapted from PRISMA Statement)[11].

The classification of the level of evidence and recommendation strength of each study was performed according to the guidelines of JBI[12-14], which can be verified in Chart 1↗.

After the analysis of the previous table, it can be verified that all articles are Randomized Controlled Studies, except for article D[2] which is a case control study.

The JBI Critical Appraisal Tools were then applied to all selected articles. The completion of the questionnaires is shown in Table 1↗.

RESULTS

A data extraction chart↗ was prepared for the selected studies, according to the guidelines of JBI, namely author, aim of the study, sample, results, period and country of origin.

DISCUSSION

The performance of ICU diary is based on the purpose that memory is one of the strongest and consistent predictors of whereas people who have more severe symptoms of PTSD do not have factual memories or have experienced vivid traumatizing or delusional memories in the course of their ICU stay[7]. The main memories reported by people who were hospitalized are the visits of relatives, feeling confused, the presence of the orotracheal tube, voices, faces, medical visits, luminosity, feeling uncomfortable and discouraged, to feel panic, to feel hallucinations, to feel that health professionals want to hurt them and to have nightmares[7]. Thus, the ICU diary will write the biography of the hospitalized person in order to provide memories to those who do not have them or to give meaning to confused, disconnected and delusional memories. whereas, as mentioned in the theoretical framework, one of the risk factors for the development of PTSD is the invasive/ potentially painful procedures to which people are subjected and the unknown environment, the ICU diary will also demystify what each procedure was and its importance, as well as the function of each equipment that is part of the monitoring and surveillance of the person hospitalized in ICU.

The accomplishment of ICU diary presents as advantages the chronological reorganization of the events experienced in ICU and the prevention of the Post Intensive Care Syndrome (PICS) in the person and family/caregiver, namely the PTS disorder, anxiety and depression. PTSD is a problem that requires immediate intervention by intensive care professionals, because according to the results presented by the authors of article C[7], the prevalence of people with PTSD symptoms is 36% after 1 month and 702% 3 months after admission. Thus, it is essential that professionals in their clinical practice adopt behaviors aimed at promoting the holistic comfort of the person and family/caregiver and be available to embrace new projects such as ICU diary.

According to the quantitative results of study A[15], although not statistically significant, these were in favor of ICU diary. Article B[16] meets the previous information; however, this last study concluded that, at the level of other PICS symptoms, such as anxiety and depression, there were statistically significant differences in favor of performing ICU diary. Study D[2] also revealed benefits with ICU diaries, because it was possible to perceive a slight decrease in the average score of the SPTD evaluation scale, the Impact of Event Scale – Revised (IES-R), in the intervention group (14 to score 10) and a significant increase in the control group (score 15 to score 23), and of the 35 participants who had a score higher than 24 (score from which there are severe symptoms of PTS), 30 participants were from the control group and only 5 from the intervention group.

The fact that the quantitative results are not statistically significant may be related to: reduced number of times the participants read the ICU diary[15]; the best method or time of ICU diary delivery[15] and the fact that it is unknown whether the participants had or not risk factors for the development of PTSD symptoms or whether they already had previous PTSD[2,7,15] because the latter have special needs regarding PTSD prevention strategies. Another factor to consider and that may have influenced the results was not having been evaluated if all participants would benefit from reading the ICU diary, because each individual has their needs, and if for some people it is important to reconstruct their history, for other people it is important to forget the traumatic event, overcoming it[15]. Thus, according to Sun *et al* (2021)[17] it is necessary to properly assess and identify which people benefit from this strategy to avoid worsening the existing psychological dysfunction.

At the qualitative level, ICU diaries showed great acceptability by people, and according to study E[6], 86% of patients read the ICU diary and, out of these, 95% discussed it with a family member and about 26% of family members read the diary with the patient. When patients were asked about the added value of ICU diary, in the light of the authors of study D[2], 57% answered that it was somewhat useful, 13% moderately useful, 9% very useful and 7% extremely useful. Participants who did not read or write in the journal reported that

they felt fatigued, that remembering the hospitalization was a painful experience and that they were still busy with issues of the health/disease process[2]. The information mentioned, meets the study developed by Tavares *et al* (2019)[18] which had as one of the objectives to assess satisfaction with the diary, which concluded that 65.5% of the participants in the study consider that the diary "helped clarify what had happened, fill in memory gaps, recovery and reassurance, so that they would recommend its preparation to people in similar situations, having been classified by the authors as satisfied"[18:167]. In the same line of thought, Glimelius *et al* (2018)[19], concluded in their study that, through the diary, survivors of a critical situation can better understand the care provided in the ICU, strengthen the relationship of trust with health professionals and reduce the intensity of symptoms of PICS.

The family/caregiver also suffers from PICS and changes in standard and quality of life. According to study E[6], there was a statistically significant reduction in PTSD symptoms in family members who collaborated in the performance of ICU diary. The Scores in the PTSS 14 scale are 26.3% lower in the intervention group compared to the control group. Of the 12 relatives who commented on the accomplishment and usefulness of the ICU diary, 9 considered positive or very positive, being a place to express emotions and that helps to remember and understand the period of hospitalization, being an interesting activity to perform while feeling powerless in the face of the critical disease. Only 1 family member mentioned that ICU diary was a negative strategy because it was emotionally difficult to read it, and 2 participants adopted a neutral position towards ICU diary. Regarding mourning, as mentioned in the theoretical framework, and according to the systematic review of the literature of Galazzi *et al* (2021)[9], the performance of ICU diary was perceived by family members as positive in the sense that it helped them understand and attribute meaning to what happened to their family member, which turned out to be a coping mechanism to face the grieving process.

There are other strategies that, together with ICU diary, enhance its effect, namely its analysis and discussion with family members and in the Follow Up Consultation[15], the visit to the ICU as an integral part of the Follow Up Consultation[15] and psychoeducation[16].

The ICU diary integration strategy in the ICU is a feasible project, it is a non-invasive and low-cost intervention, and in the context of ICU it is considered a strategy of humanization of care to the Person in Critical Situation[15] and of making the environment, sometimes hostile to an ICU, in a warm and less impersonal environment. The training of the multidisciplinary team and the family, for the realization of the ICU diary, is very important, so that it is carried out according to the guidelines and fulfills the purpose for which it was designed[15]. During the accomplishment of the article A[15] a sample of the ICU diary was submitted to evaluations to confirm the correct realization of them, something that, in the

implementation phase of this project in an ICU, has a very positive effect for the improvement of its realization. The nurse, a dynamic element of ICU diary, should promote its acceptability to the rest of the multidisciplinary team and family/caregiver, and the authors of article B[16] report that ICU diary was a well-accepted strategy by the team and health and family/caregiver, having a positive attitude towards it, not considering it a burden and adds that 48% of the records in the ICU diary took less than 5 minutes.

CONCLUSION

It is emerging the personalization and humanization of nursing care in order to minimize the negative effects on the psychological Outcomes of ICU hospitalization for the person and family/ caregiver, and the implementation of ICU diary is a dynamic strategy of this area, whose benefit is the prevention of the development of psychological consequences (namely PTSD, anxiety and depression) that arise from the hospitalization in ICU for both the person and the family/ caregiver. Although this benefit is not very significant quantitatively, qualitatively is a strategy highly appreciated by the person and family/ caregiver, who in addition to sharing in the diary their emotions regarding the existing health/ disease process, They value the attention and personalization of the health care team by taking the time to write their history for intensive care. Still, noting that although it is a strategy mostly accepted with pleasure by the person and family/ caregiver, some of these consider that it may be cause of greater suffering to be recalling the process of hospitalization in ICU, so it is important to follow individualized and personalized after discharge.

Also to highlight that to enhance the effect of ICU diary, it is important that it is integrated in a program, together with other strategies, such as psychoeducation and Follow-up consultation, where this will be analyzed and discussed and where we will be given both feedback from the person and family/caregiver about this strategy and the quality of nursing care in a more comprehensive way.

As already mentioned, despite the theme of the psychological consequences resulting from a hospitalization in ICU, both in the hospitalized person and in their family members and/or caregivers, already be sensitized by the health professionals of the ICU, its prevalence still presents numbers that lack a greater and better intervention by them. Thus, this study aims to contribute to the dissemination of the theme to intensive care professionals and to the dissemination of an innovative strategy in Portugal, but already solid in other countries, which allows to narrate the daily life of the person hospitalized in ICU. This will be a useful tool for the follow-up of the person and family/caregiver after hospitalization in ICU,

namely by the intensive care physician assistant and nurse of the follow-up consultation and, if necessary, psychological follow-up after hospitalization in ICU.

It is suggested that each of the existing ICU, create a multidisciplinary working group for the development of the normative guiding the implementation of the ICU diary and that after its implementation, periodically study the satisfaction of users (hospitalized person, family/ caregiver) intervention, so that, progressively, the maximum benefit of this strategy is achieved.

The realization since article had as limitations the existence of a small number of studies on the subject and performed with a small sample. It is imperative to carry out more studies that make the results more representative, both in the world population, and adapted to the Portuguese population, so that this intervention is widely recommended as a therapeutic strategy.

REFERENCES

1. Warlan H, Howland L. Posttraumatic stress syndrome associated with stays in the intensive care unit: Importance of nurses' involvement. Critical Care Nurse. 2015;35(3),44-52. Available from: https://doi.org/10.4037/ccn2015758

2. Torres L, Nelson F, West G. Exploring the Effects of a Nurse-Initiated Diary Intervention on Post – Critical Care Posttraumatic Stress Disorder. The American Journal of Nursing. 2020;120(5).

3. Wade D, Als N, Bell V, Brewin C, D'Antoni D, Harrison D, et al. Providing psychological support to people in intensive care: Development and feasibility study of a nurse-led intervention to prevent acute stress and long-term morbidity. BMJ Open. 2018;8(7),1-12. Available from: https://doi.org/10.1136/bmjopen-2017-021083

4. Garrouste-Orgeas M, Flahault C, Fasse L, Ruckly S, Amdjar-Badidi N, Argaud L, et al. The ICU-Diary study: Prospective, multicenter comparative study of the impact of an ICU diary on the wellbeing of patients and families in French ICUs. Trials. 2017;18(1),1-11. Available from: https://doi.org/10.1186/s13063-017-

5. Busico M, Neves A, Carini F, Pedace M, Villalba D, Foster C, et al. Follow-up program after intensive care unit discharge. Medicina Intensiva (English Edition). 2019;43(4),243-254. Available from: https://doi.org/10.1016/j.medine.2019.03.009

6. Nielsen A, Angel S, Egerod I, Lund T, Renberg M, Hansen, T. The effect of family-authored diaries on posttraumatic stress disorder in intensive care unit patients and their relatives: A randomised controlled trial (DRIP-study). Australian Critical Care. 2019;33(2),123-129. Available from: https://doi.org/10.1016/j.aucc.2019.01.004

7. Sayde G, Stefanescu A, Conrad E, Nielsen N, Hammer R. Implementing an intensive care unit (ICU) diary program at a large academic medical center: Results from a randomized control trial evaluating psychological morbidity associated with critical illness. General Hospital Psychiatry. 2020;66(January),96-102. Available from: https://doi.org/10.1016/j.genhosppsych.2020.06.017

8. Nielsen A, Angel S. How diaries written for critically ill influence the relatives: A systematic review of the literature. Nursing in Critical Care. 2016;21(2),88-96. Available from: https://doi.org/10.1111/nicc.12158

9. Galazzi A, Adamini I, Bazzano G, Cancelli L, Fridh I, Laquintana D, et al.. Intensive care unit diaries to help bereaved family members in their grieving process: a systematic review. Intensive and Critical Care Nursing. 2022. Available from: https://doi.org/10.1016/j.iccn.2021.103121

10. Joanna Briggs Institute. JBI Reviewer's Manual. The Joanna Briggs Institute. 2022;March, 32. Available from: https://reviewersmanual.joannabriggs.org/

11. Salameh J, Bossuyt P, McGrath T, Thombs B, Hyde C, MacAskill P, et al. Preferred reporting items for systematic review and meta-analysis of diagnostic test accuracy studies (PRISMA-DTA): Explanation, elaboration, and checklist. The BMJ. 2020;370(12). Available from: https://doi.org/10.1136/bmj.m2632

12. Joanna Briggs Institute. Critical Appraisal Checklist for Case Reports – Critical Appraisal tools for use in JBI Systematic Reviews. 2020;1-5. Available from: https://joannabriggs.org/critical_appraisal_tools

13. Joanna Briggs Institute. The Joanna Briggs Institute Checklist for Qualitative Research. Joanna Briggs Institute: Adelaide, Australia. 2016;6. Available from: https://jbi.global/critical-appraisal-tools

14. Joanna Briggs Institute. JBI Approach : Grades of Recommendation. Grades of Recommendation, October, 2013. Available from: https://joannabriggs.org/sites/default/files/2019-05/JBI-grades-of-recommendation_2014.pdfn

15. Garrouste-Orgeas M, Flahault C, Vinatier I, Rigaud J, Thieulot-Rolin N, Mercier E, et al. Effect of an ICU Diary on Posttraumatic Stress Disorder Symptoms Among Patients Receiving Mechanical Ventilation: A Randomized Clinical Trial. JAMA – Journal of the American Medical Association. 2019;322(3),229-239. Available from: https://doi.org/10.1001/jama.2019.9058

16. Kredentser M, Blouw M, Marten N, Sareen J, Joseph Bienvenu O, Ryu J, et al. Preventing posttraumatic Stress in ICU survivors: A single-center pilot randomized controlled trial of ICU diaries and psychoeducation. Critical Care Medicine. 2018;46(12),1914-1922. Available from: https://doi.org/10.1097/CCM.0000000000003367

17. Sun X, Huang D, Zeng F, Ye Q, Xiao H, Lv D, et al. Effect of intensive care unit diary on incidence of posttraumatic stress disorder, anxiety, and depression of adult intensive care unit survivors: A systematic review and metaanalysis. J Adv Nurs. 2021;00:1-13.

18. Tavares T, Camões J, Carvalho D, Jacinto R, Vales C, Gomes E. Avaliação da satisfação e das preferências do doente com o diário em cuidados intensivos. Revista Brasileira de Terapia Intensiva. 2019;31(2):164-170

19. Glimelius P, Ringdal M, Apelgvist G, Bergbom I. Diaries and memories following na ICU stay: a 2-month follow-up study. Nursing Critical Care. 2018;23(6):299-307

Authors
Ana Sofia Correia
https://orcid.org/0009-0001-1647-2286
Alice Ruivo
https://orcid.org/0000-0002-6960-828X

Corresponding Author/Autor Correspondente
Ana Sofia Correia – Centro Hospitalar Universitário do Algarve EPE, Portimão, Portugal.
asjc@hotmail.com

Authors' contributions/Contributos dos autores
AC: Study coordination, study design, data collection, storage and analysis, review and discussion of the results.
AR: Study design, data analysis, review and discussion of the results.
All authors have read and agreed with the published version of the manuscript.

Ethical Disclosures
Conflicts of Interest: The authors have no conflicts of interest to declare.
Financial Support: This work has not received any contribution, grant or scholarship.
Provenance and Peer Review: Not commissioned; externally peer reviewed.

Responsabilidades Éticas
Conflitos de Interesse: Os autores declararam não possuir conflitos de interesse.
Suporte Financeiro: O presente trabalho não foi suportado por nenhum subsídio ou bolsa.
Proveniência e Revisão por Pares: Não comissionado; revisão externa por pares.

©Authors retain the copyright of their articles, granting RIASE 2023 the right of first publication under the CC BY-NC license, and authorizing reuse by third parties in accordance with the terms of this license.
©Os autores retêm o copyright sobre seus artigos, concedendo à RIASE 2023 o direito de primeira publicação sob a licença CC BY-NC, e autorizando reuso por terceiros conforme os termos dessa licença.

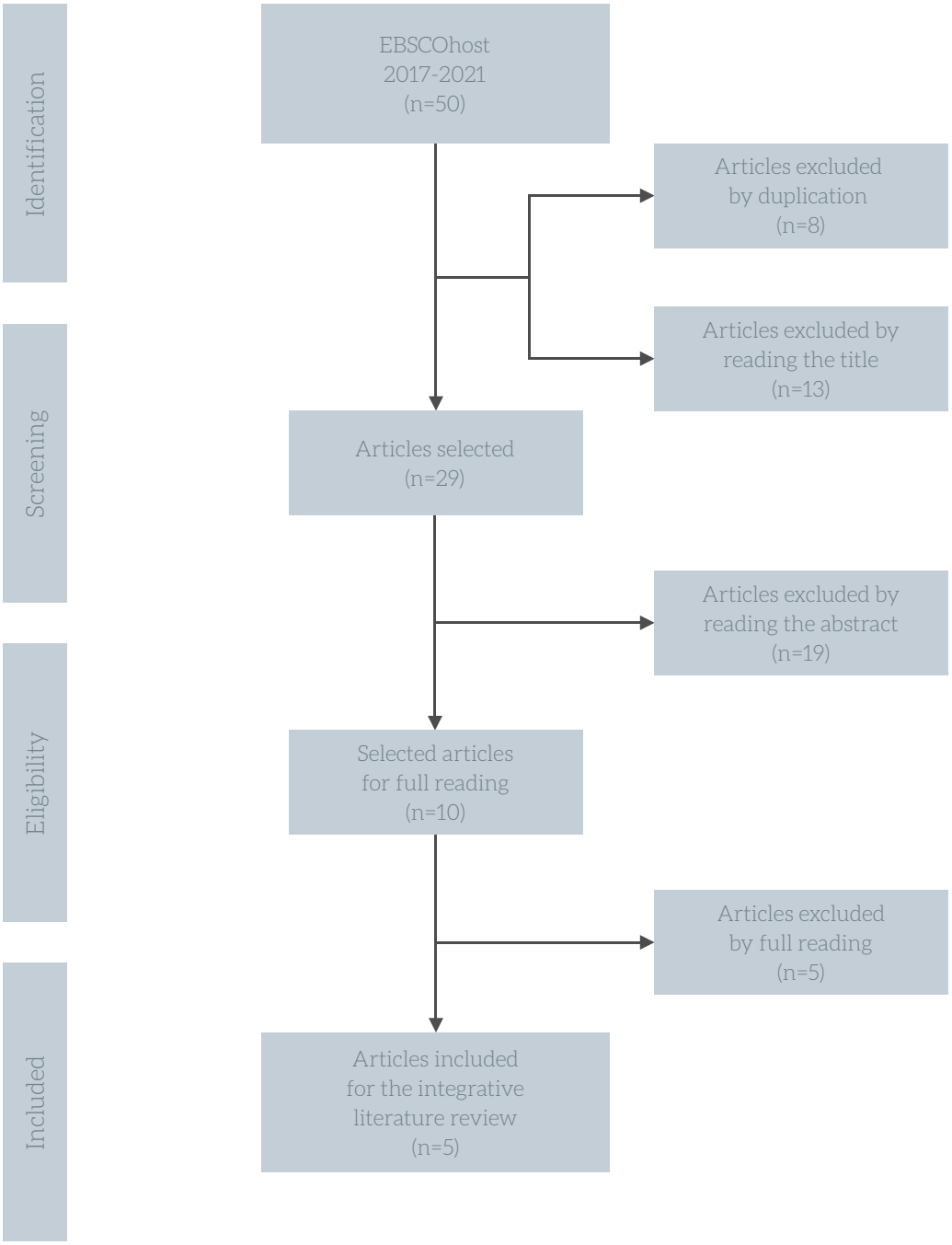


Figure 1 – Flow diagram (adapted from PRISMA Statement)[11].

Chart 1 – Evaluation of the level of evidence and the level of recommendation of articles according to JBI.

Identification/Authors of the study	Level of evidence/ Type of study	Strength of recommendation
A – Garrouste - Orgeas *et al* (2019)[15]	1 c) / RCT	Strong
B – Kredentser *et al* (2018)[16]	1 c) / RCT	Strong
C – Sayde *et al* (2020)[7]	1 c) / RCT	Strong
D – Torres *et al* (2020)[2]	3 d) / Case-control study	Strong
E – Nielsen *et al* (2019)[6]	1 c) / RCT	Strong

Table 1 – Results of the completion of the JBI Critical Appraisal Tools of the included studies.

Identification/ Authors of the study	A – Garrouste - Orgeas *et al* (2019)[15]	B – Kredentser *et al* (2018)[16]	C – Sayde *et al* (2020)[7]	D – Torres *et al* (2020)[2]	E – Nielsen *et al* (2019)[6]
Q1	Y	Y	Y	Y	Y
Q2	N	Y	N	Y	N
Q3	Y	Y	Y	Y	Y
Q4	Y	N	N	Y	N
Q5	N	N	N	Y	N
Q6	Y	N	N	Y	N
Q7	Y	Y	Y	Y	Y
Q8	Y	Y	Y	Y	Y
Q9	Y	Y	Y	Y	Y
Q10	Y	Y	Y	Y	Y
Q11	Y	Y	Y	-	Y
Q12	Y	Y	Y	-	Y
Q13	Y	Y	Y	-	Y
YES %	84.6	76.9	69.2	100	69.2

Y = Yes; N = No; U = Unclear; NA = Not Applicable.

Chart 2 – Data extraction chart of the selected studies.

Identification/ Authors of the study	Aim of the study	Sample	Results	Study period/ Country of origin
A – Garrouste - Orgeas *et al* (2019)[15]	To study the effect of ICU diary with the occurrence of psychological consequences in the person and family at 3 months after discharge from the ICU.	164 people in the intervention group. 175 people in the control group. 281 family members in the intervention group. 282 family members in the control group.	Intervention group: 29.9% of People with score > 22 on the SPT scale 47.7% of Family members with PTSD symptoms. Control group: 34.3% of People with score > 22 on the SPT scale 45% of Family members with PTSD symptoms.	October 2015 – July 2017 France.
B – Kredentser *et al* (2018)[16]	To study the effect of ICU diary in the prevention of psychological consequences after 1 and 6 months of hospitalization in ICU.	26 People/Family in the intervention group. 6 Persons/Family in control group.	Intervention group: 11.5% of people with few to moderate symptoms of PTSD after 1 and 3 months. Control group: 15.4% of people with few to moderate symptoms of PTSD after 1 month and 18.2% after 3 months.	May 2014 – November 2016 Canada.
C – Sayde *et al* (2020)[7]	To study the effectiveness of ICU diaries in reducing PTSD symptoms after ICU admission.	5 People in the intervention group. 8 Persons in control group.	The control group showed a significant reduction in symptoms of post-traumatic stress, hyperexcitation and depression 4 weeks after discharge compared to the intervention group.	September 2017 – September 2018 United States of America.
D – Torres *et al* (2020)[2]	To study the effect of ICU diary in the development of PTSD symptoms and their severity in survivors of critical situation.	68 People in the intervention group. 66 Persons in control group.	Intervention group: The score on the PTSD evaluation scale went from 14 to 10 between the pre-test and the post-test. Control group: The score on the PTSD evaluation scale went from 15 to 23 between the pre-test and the post-test.	December 2017 – May 2018 United States of America.
E – Nielsen *et al* (2019)[6]	To study the effect of ICU diaries, written by close relatives, on psychological consequences and quality of life after hospitalization in ICU.	26 People in the intervention group. 22 Persons in control group. 44 family members in the intervention group. 47 family members in the control group.	Intervention group: Average score in the PTSD evaluation scale of 21 in the Person and 26 in the Family. Control group: Average score in the PTSD evaluation scale of 28 in the Person and 32 in the Family.	March 2015 – July 2017 Denmark.