

**INTERVENÇÕES DE ENFERMAGEM PARA PREVENIR STRESSE PÓS-TRAUMÁTICO EM PESSOAS EM CUIDADOS INTENSIVOS: PROTOCOLO SCOPING REVIEW**

**NURSING INTERVENTIONS TO PREVENT POST-TRAUMATIC STRESS DISORDERS IN PEOPLE IN INTENSIVE CARE: SCOPING REVIEW PROTOCOL**

**INTERVENCIONES DE ENFERMERÍA PARA LA PREVENCIÓN DE TRASTORNOS DE ESTRÉS POSTRAUMÁTICO EN PERSONAS EN CUIDADOS INTENSIVOS: PROTOCOLO SCOPING REVIEW**

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## RESUMO

**Introdução:** As pessoas que necessitam de internamento em Cuidados Intensivos (CI) são pessoas expostas a fatores de stresse, por se tratar de um contexto físico limitado, com luz artificial e ruído permanente. A estes fatores soma-se o ambiente hostil e emocionalmente desgastante decorrente da complexidade dos cuidados necessários à pessoa em situação crítica (Correia, 2020), tornando-a vulnerável e em risco de desenvolver Stresse Pós-Traumático (SPT). Existe, atualmente, vasta literatura sobre o SPT, no entanto, a investigação existente sobre o papel do enfermeiro na prevenção do SPT em pessoas internadas em CI é escassa.

**Objetivo:** Mapear as intervenções de enfermagem que previnem o SPT em pessoas internadas em contexto de CI.

**Métodos:** Scoping Review segundo a metodologia do Joanne Briggs Institute (JBI). A estratégia de pesquisa mapeará estudos publicados. As bases de dados incluídas serão: PUBMED, CINAHL via EBSCO, JBI Database of Systematic Reviews, COCHRANE Database of Systematic Reviews, Repositório Científico de Acesso Aberto de Portugal, OpenGrey e Dart-Europe. Esta revisão integrará artigos centrados nas intervenções de enfermagem que contribuem para prevenir o SPT em pessoas internadas em contexto de CI e incluirá estudos com desenhos quantitativos, qualitativos ou mistos, bem como revisões sistemáticas e guidelines.

**Resultados:** Espera-se identificar as intervenções de enfermagem que são determinantes para a prevenção do SPT em pessoas internadas no contexto de CI.

**Conclusão:** Os resultados desta revisão evidenciarão o papel da enfermagem na prevenção de SPT do doente internado em contexto de CI, sensibilizando para esta temática, especificamente para alcançar resultados altamente significativos e clinicamente relevantes nesta área.

**Palavras-chave:** transtorno de stresse, pós-traumático; PTSD; cuidados críticos; cuidados intensivos; enfermagem

## ABSTRACT

**Introduction:** People who need hospitalization in Intensive Care (CI) are people exposed to stress factors, because it is a limited physical context, with artificial light and permanent noise. Added to these factors is the hostile and emotionally exhausting environment resulting from the complexity of the care needed for the person in a critical situation (Correia, 2020), making them vulnerable and at risk of developing Post Traumatic Stress Disorder (PTSD). There is currently a vast literature on PTSD, however, existing research on the role of nurses in the prevention of SPT in people hospitalized in CI is scarce.

**Objective:** To map nursing knowledge on nursing interventions that help prevent PTSD in inpatients in the context of CI.

**Methods:** *Scoping Review* according to the Joanne Briggs Institute's (JBI) methodology.

The research strategy will map published studies. The databases included will be: PUBMED, CINAHL via EBSCO, JBI Database of Systematic Reviews, COCHRANE Database of Systematic Reviews, Portuguese Open Access Scientific Repository, OpenGrey and Dart-Europe. This review will integrate articles focusing on nursing interventions that help prevent post-traumatic stress disorder in inpatients in the context of intensive care and will include quantitative, qualitative or mixed studies, as well as systematic reviews, guidelines and gray literature.

**Results:** It is hoped to identify the nursing interventions that are determinant for the prevention of PTSD in inpatients in the context of CI

**Conclusion:** The results of this review will show the role of nursing in the prevention of PTSD of the inpatient in the context of CI, raising awareness of this issue, specifically to achieve highly significant and clinically relevant outcomes in this area.

**Keywords:** stress disorders; post-traumatic; PTSD; critical care; intensive care; nursing

## RESUMEN

**Introducción:** Las personas que necesitan hospitalización en Cuidados Intensivos (CI) son personas expuestas a factores de estrés, por tratarse de un contexto físico limitado, con luz artificial y ruido permanente. A estos factores se suma el ambiente hostil y emocionalmente agotador que resulta de la complejidad de los cuidados necesarios para la persona en situación crítica (Correia, 2020), haciéndola vulnerable y en riesgo de desarrollar Trastorno de Estrés Postraumático (SPT). Actualmente existe una vasta literatura sobre el SPT, sin embargo, las investigaciones existentes sobre el papel de las enfermeras en la prevención del SPT en personas hospitalizadas en CI son escasas.

**Objetivo:** mapear el conocimiento de enfermería sobre las intervenciones de enfermería que ayudan a prevenir el trastorno de estrés postraumático en pacientes internados en el contexto de cuidados intensivos.

**Métodos:** Scoping Review según la metodología del Joanne Briggs Institute (JBI). La estrategia de investigación mapeará estudios publicados. Las bases de datos incluidas serán: PUBMED, CINAHL a través de EBSCO, Base de datos de revisiones sistemáticas JBI, Base de datos de revisiones sistemáticas COCHRANE, Repositorio científico de acceso abierto portugués, OpenGrey y Dart-Europe. Esta revisión integrará artículos centrados en las intervenciones de enfermería que ayudan a prevenir el trastorno de estrés postraumático en pacientes hospitalizados en el contexto de cuidados intensivos e incluirá estudios cuantitativos, cualitativos o mixtos, así como revisiones sistemáticas, guías y literatura gris.

**Resultados:** Con esta revisión de alcance se espera identificar las intervenciones de enfermería que son determinantes para la prevención del SPT en pacientes internados en el contexto de CI.

**Conclusión:** Los resultados de esta revisión mostrarán el papel de la enfermería en la prevención del SPT del paciente hospitalizado en el contexto de CI, creando conciencia sobre este tema, específicamente para lograr resultados altamente significativos y clinicamente relevantes.

**Palabras Clave:** trastornos de estrés postraumático; PTSD; Cuidado crítico; cuidados intensivos; enfermería

## INTRODUCTION

People who need admission in Intensive Care Units (ICU) are constantly exposed to stress factors, making them vulnerable and at risk of developing Post-Traumatic Stress Disorder (PTSD). According to Warlan and Howland (2015), this risk is due to experiences related to the disease, the threat of life risk and the treatments and interventions that these people are subject to in this context.

The experience of ICU admission may be unpleasant and negative, triggering a traumatic event that could trigger PTSD, since ICUs have a stressful environment and characterize themselves as "limited physical spaces with artificial light, permanent noise, a hostile and emotionally worn environment and patients in aggravated health situations, i.e. critical patients" (Correia, 2020, p. 48).

The identification of stress factors is crucial for the approach to the inpatient in ICU since their admission, the time when the factors that caused the situation need to be acknowledged. The person in ICU faces multiple stress factors such as the critical nature of the disease, the multiple care and procedures, the threat of life-threatening, isolation, the technology involved, auditory stimuli, cold and bureaucratic nature and poor control that people have about what happens in this context (Pinho, 2020). The involvement of the ICU context can be viewed as a threat by the inpatient due to multiple interventions and procedures, from "invasive and/or painful procedures; multiple therapies that include the frequent administration of benzodiazepines and other sedative drugs; mechanical ventilation; *delirium* with associated psychotic symptoms; physical restraint; changes in the sleep-wake cycle, as well as limited ability in communication and reduced autonomy" (Carvalho & Aleixo, 2021, p.1). These people face daily struggles or common frustrations and the fact that they do not play their usual role leads to a loss of their coping mechanisms.

Therefore, people in ICUs can be exposed to the death threat as well as feeling if their physical integrity is compromised.

PTSD arises when there is exposure to death threats, actual death, serious injury or sexual violence, with the presence of one or more symptoms (DSM-V Manual, 2014).

PTSD is a response to a negative event and the intrusive symptoms that may be associated are: , intrusive, involuntary and recurrent memories that cause malaise; disturbing dreams which contents and/or emotions are related to traumatic event (s); dissociative reactions that occur when the individual feels or acts as if the traumatic event (s) is occurring again; intense or prolonged psychological ailment when exposed to stimulus that are likened or symbolize the traumatic event (s) and intense physiologic reactions when the person is exposed to internal or external stimuli that are likened or symbolize the traumatic event (s) (Manual DSM-V, 2014). People who have these symptoms for more than a month after the traumatic event are considered diagnostic symptoms of PTSD (Torres & West., 2020).

People who are hospitalized in ICU who suffer from PTSD have specific symptoms due to anxiety disorder that cause them to relive hospitalization. These people reexperienced the traumatic event through flashbacks, nightmares, great distress and is characterized by traumatic memories (Rachkorsky & Mussi, 2022).

Nurses are a "presence," attentive to the needs of the patient, that represents the aspect of nursing care and can help to early identify the problems of the patient "(Urden et al., 2006, p.59) as they take a decisive role in the early detection of signs that may indicate PTSD, implementing interventions that can minimize that risk.

There are risk factors that cannot be suppressed because they are essential for a person's survival, such as mechanical ventilation. However, autonomous and interdependent interventions can be implemented that can make the ICU environment more enjoyable to promote the comfort of the person and reduce the risk of developing PTSD. According to Warlan & Howland (2015), the environment lived by the patient in ICU can lead to the appearance of PTSD and should be prevented from the moment of admission.

Currently, PTSD is a subject that is very present in the literature, however existing research in relation specifically to nursing interventions for PTSD prevention in ICU is scarce, making it relevant to develop research that contributes to the development of knowledge in this field in order to map nursing interventions that prevent PTSD.

This scoping review aims to map nursing knowledge about nursing interventions that contribute to preventing PTSD in inpatients in the context of ICU, and to answer the following research question: What are the nursing interventions that prevent PTSD in inpatients in IC? The purpose of this study is to formalise the knowledge on this topic which could be reflected in the practice of ICU nurses through the implementation of interventions that can prevent PTSD, in order to reduce the physical, psychological and emotional repercussions that may harm the quality of life of the person and also to be the starting point for the subsequent development of other research studies.

## 1. METHODS

### Type of Study

The type of study to be carried out will be a scoping review which development will respect the protocol of the Joanne Briggs Institute (JBI).

### Eligibility criteria

According to JBI methodology, the subject of research will have to be eligible, based on three criteria, according to PCC mnemonics:

- ✓ Participants – studies that involve adult people admitted in ICU;
- ✓ Concept – studies addressing nursing interventions that prevent PTSD;
- ✓ Context – studies developed in any contextual configuration.

### Types of Sources

This review will consider quantitative studies (randomised controlled trials, non-randomised controlled trials or other quasi-experimental studies, including before and after studies and observational drawings), qualitative studies (which focus on qualitative data such as but not limited to phenomenology, reasoned theory and ethnographic designs) and revision (any systematic reviews and guidelines).

### Inclusion criteria

Through the determination of the eligibility criteria (PCC), according to the JBI methodology, all studies involving adult people admitted in ICU and addressing nursing interventions for the prevention of PTSD, in Portuguese, English and Spanish will be included, without time limit and all types of published and unpublished studies.

### Exclusion criteria

Research results showing population below 18 years of age or people with a psychiatric history will be excluded. Revision protocols and summaries of conferences, posters or oral communications will not be considered, as well as letters to the editor because they are documents with little information. The protocol for this scoping review was registered in the Open Science Framework (<https://osf.io/x65qf9>).

### Research Strategy

The research strategy will be made in three steps:

- (1) Initial research at MEDLINE (via PubMed) and CINAHL Complete (via EBSCO) to identify articles on the topic and analyze the words contained in the titles and summaries of these articles, as well as the indexing terms used (Table 1);
- (2) Research in the databases of interest with the keywords and indexing terms identified in the first step;
- (3) Analysis of the list of bibliographic references of all identified articles to find additional studies (reference reference). MEDLINE (PubMed) and CINAHL (EBSCO)

**Table 1** - Initial search example.

Search	Strategy	Results
	Cinahl Complete (Via Ebsco)	
#1	("stress disorders, post-traumatic" OR "PTSD")	27 642
#2	("critical care" OR "intensive care")	144 384
#3	nurs*	997 467
#4	("stress disorders, post-traumatic" OR "PTSD") AND ("critical care" OR "intensive care") AND nurs*	219
#5	Filters: Language – English, Portuguese, Spanish	<u>207</u>
	PubMed	
#1	("stress disorders, post-traumatic" OR "PTSD")	46 770
#2	("critical care" OR "intensive care")	461 866
#3	nurs*	1 049 663
#4	("stress disorders, post-traumatic" OR "PTSD") AND ("critical care" OR "intensive care") AND nurs*	309
#5	Filters: Language – English, Portuguese, Spanish	<u>299</u>
	Joanna Briggs Institute (JBI)	
#1	(stress disorders, post-traumatic OR PTSD)	136
#2	(critical care OR intensive care)	1915
#3	nurs*	2015
#4	(stress disorders, post-traumatic OR PTSD) AND (critical care OR intensive care) AND nurs*	107
#5	Filters: Language – English, Portuguese, Spanish	<u>107</u>
	Cochrane Library	
#1	("stress disorders, post-traumatic" OR "PTSD")	5000
#2	("critical care" OR "intensive care")	28 221
#3	nurs*	47 009
#4	("stress disorders, post-traumatic" OR "PTSD") AND ("critical care" OR "intensive care") AND nurs*	30
#5	Filters: Language – English, Portuguese, Spanish	<u>30</u>
	Repositórios Científicos de Acesso Aberto de Portugal (RCAAP)	
#1	stress disorders, post-traumatic OR PTSD	32
#2	critical care OR intensive care	5293
#3	nurs*	30 007
#4	stress disorders, post-traumatic OR PTSD AND critical care OR intensive care AND nurs*	7
#5	Filters: Language – English, Portuguese, Spanish	7
	Dans Easy ou OpenGrey	
#1	("stress disorders, post-traumatic" OR "PTSD")	2605
#2	("critical care" OR "intensive care")	3694
#3	nurs*	351
#4	("stress disorders, post-traumatic" OR "PTSD") AND ("critical care" OR "intensive care") AND nurs*	10
#5	Filters: Language – English, Portuguese, Spanish	<u>8</u>
	Dart-Europe	

Search	Strategy	Results
#1	("stress disorders, post-traumatic" OR "PTSD")	80 784
#2	("critical care" OR "intensive care")	77 825
#3	nurs*	7077
#4	("stress disorders, post-traumatic" OR "PTSD") AND ("critical care" OR "intensive care") AND nurs*	684
#5	Filters: Language – English, Portuguese, Spanish	<u>409</u>
<u>Total number of articles obtained through the databases</u>		
#4	("stress disorders, post-traumatic" OR "PTSD") AND ("critical care" OR "intensive care") AND nurs*	1366
#5	Filters: Language – English, Portuguese, Spanish	<u>1067</u>

### Information Sources

The research will cover published and unpublished studies and will be carried out through research in the electronic databases PUBMED and CINAHL Complete (via EBSCO), JBI Library of Systematic Reviews and COCHRANE Database of Systematic Reviews. Grey literature research will include the Open Access Scientific Repository of Portugal, OpenGrey and Dart-Europe.

### Studies Selection

The results obtained will be exported to ZOTERO 5.094 (Corporation for Digital Scholarship and Roy Rosenzweig Center for & History and New Media, 2021), allowing the identification and elimination of duplicate articles.

The articles will then be assessed as to their relevance for the review by reading the titles and their summaries to verify the eligibility criteria. Articles complying with the eligibility criteria will be subject to full reading and analysis.

The whole process will be developed by two independent auditors and, in the event of divergence, will be resolved by a third auditor. The results will be presented through qualitative and descriptive analysis with the aim of synthesizing the inclusion process according to the PRISMA-ScR (Preferred Reporting Items for Systematic Reviews and Meta-analyses) methodology, through a flow diagram.

### Data extraction

Data will be extracted from the articles included in the review using a table aligned to the objective and issue of the review (Table 2), as indicated by the Scoping Reviews methodology of the Joanna Briggs Institute.

The data extraction will include data related to participants, concept, context, study methods and other important data that are relevant for responding to the research issue.

The table will be modified and revised as necessary throughout the process of extracting data from each source of evidence included. Modifications will be detailed in Scoping Review.

This process will be developed by two independent auditors and a third auditor will be used in the event of a divergence.

**Table 2** - Table developed for data extraction.

Article	Year	Study objective	Population/ sample	Study design	Results/ Interventions
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### Data synthesis

The extracted data will be presented through tables and/or diagrams in line with the objective of the review. A descriptive summary will follow the results patent in the tables and/or diagrams and describe how the results relate to the objective and the research question in this Scoping Review.

## 2. RESULTS

With this scoping review it is hoped to identify the nursing interventions that are determinant for the prevention of post-traumatic stress in inpatients in the context of intensive care. We expect to gain from a review of this nature results that can have applicability in the intensive care context. The development of this scoping review will bring benefits to the practice of nursing by identifying nursing interventions described in the literature aimed that can prevent PTSD in people admitted to intensive care.

### 3. DISCUSSION

The person submitted to hospitalization in intensive care experiences a set of feelings that can harm their physical and psychological recovery. Exposure to different risk factors can lead to the person developing PTSD, and there is currently a greater concern with this problem, as Pinkas and Horowitz (2020) refer when they mention that “the recognition of PTSD in survivors of critical illness has only recently come to light” (p.299).

Initial research identified that the implementation of diaries, the promotion of a therapeutic environment (for example, reducing noise, reducing light, promoting rest and sleep) and implementing preventive psychological interventions are some of the nursing interventions that allow prevent PTSD. Joanne Lomax (2021), Nielsen et. al (2020) and Torres et. al (2020) argue that the implementation of diaries helps in the prevention of PTSD, as well as in the physical and psychological recovery after hospital discharge. In 2020, Pinkas & Horowitz published an article proposing the implementation of interventions that focus on reducing sleep disturbances, delirium and benzodiazepine use, improving patient comfort and reducing the severity of PTSD in ICU survivors. We intend to discuss the results in order to demonstrate the importance of implementing nursing interventions that prevent the onset of PTSD in people hospitalized in an intensive care context, the importance to identify the risk factors present and act in their prevention. This review will identify nursing interventions regarding the prevention of PTSD.

### CONCLUSION

The results of this review are expected to demonstrate the role of nursing in the prevention of post-traumatic stress disorder of the inpatient in the context of intensive care, raising awareness of this issue, specifically to achieve highly significant and clinically relevant outcomes in this area, sensitive to nursing interventions. It is also expected that this review will lead to other research studies focusing on assessing the degree of effectiveness of the nursing interventions mapped in this review.

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