

Risk management of aggressive behaviors in mental health units for adolescents: *a scoping review protocol*

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Abstract

Aim: The aim of this review is to map the existing research on the interventions carried out by nurses in managing the risk of aggressive behavior in adolescent healthcare units

Introduction: Research on aggressive behaviors in healthcare units for adolescents with mental illness is considered a neglected area. These behaviors have an impact on staff, patients and on the therapeutic *milieu*, requiring interventions by the nursing staff for their risk management, in order to mitigate the adverse consequences they generate on safety and quality of care.

Objective: The aim of this review is to map the existing research on the interventions carried out by nurses in managing the risk of aggressive behavior in adolescent health units. **Methods:** A scoping review will be conducted regarding the methodological framework proposed by the Joanna Briggs Institute (JBI). The search strategy will be refined to identify pertinent studies was performed accordingly to each database/repository. Titles and abstracts of published and unpublished studies will be assessed in line with the eligibility criteria. The data selection, extraction and analysis process will be performed by three independent reviewers. **Results:** This scoping review protocol will include quantitative, qualitative and mixed method studies. Primary

studies, systematic reviews, dissertations, opinion texts and gray literature will be considered regarding the three steps defined by JBI for scoping reviews. **Conclusions:** This review incorporate knowledge about nursing interventions for risk management of aggressive behaviors, focused in prevention, early intervention, but also programs with improved outcomes to the patient, staff and therapeutic *milieu*, promoting less coercive interventions.

Keywords: adolescent; aggression; healthcare units; mental illness; nursing; Protocol review.

1. Introduction

Aggressive behavior (AB) in healthcare settings is currently mentioned in the literature as a global health problem, assuming epidemic proportions (Berg, 2012; Iozzino et al., 2015; Lantta et al., 2020) presenting clinical challenges but also attracting increasing research interest (Girasek et al., 2022).

Psychiatric care, particularly in hospital units, is one of the most prevalent contexts and one in which most incidents are reported (Edward et al., 2016), being the AB in psychiatric healthcare units for children and adolescents more evident (Barzman et al., 2011; Cornaggia et al., 2011).

Their occurrence poses risks to the patient, professionals and other patients safety (Baeza et al., 2013; Panagiotou et al., 2019), affects negatively the therapeutic *milieu*, and disrupts established routines, thereby reducing the unit's capacity to support recovery and rehabilitation (Maguire et al., 2024) but also contributes to financial costs through property damage and staff absences (Beidas et al., 2016; d'Ettoire & Pellicani, 2017).

In young people, mental health issues represent a significant share of the total disease burden during this stage of life and are the leading cause of disability. Research indicates that up to 50% of all mental disorders start before the age of 14 (Iozzino et al., 2015), and approximately 20% of children and adolescents are affected by a mental disorder before turning 18 (Lantta et al., 2020).

Despite the wide diversity in the clinical presentation of psychopathological conditions in childhood and adolescence, behavioral disorders are more severe (Rede de Referência Hospitalar, 2018).

Acute behavioral change, mostly manifested by self- or hetero- aggressive behaviors, although a nonspecific sign, is the main frequent cause for referral and treatment in psychiatric emergency departments (Scivoletto et al., 2010), and one of the main reasons for psychiatric hospitalization (Tremmery et al., 2014).

AB in young people thus constitutes a multifaceted phenomenon that persistently challenges society (Berg, 2012). The complexity of these behaviors is confirmed in their very definition, with multiple definitions in the scientific literature (Girasek et al., 2022; Hage et al., 2009), inherent to the complexity of human behavior.

The adopted definition of AB by this review emphasizes the emotional development experience by the adolescent, considering it as an adaptive behavior, understood as the use of physical or verbal force in response to a perceived threat or feelings of frustration (Scivoletto et al., 2010).

The manifestation of AB depends on a complex relationship of intrinsic and extrinsic factors (NICE, 2024), and may be the result of a first crisis episode or the re-aggravation of a pre-existing disorder (Scivoletto et al., 2010) but also arising from the phase of personal, physical, psychological and emotional development that occurs in adolescence, being usually classified as "crisis", requiring in view of its condition a monitoring (Gansel & Lézé, 2015).

Personality characteristics and mental distress are identified as intrinsic factors, while the attitudes of professionals and other patients in the service, the use of environmental limitation

and other restrictions that limit the patient's freedom are considered extrinsic factors (NICE, 2024).

Consensually, nurses are the professionals who develop their daily clinical practice with and closely to the adolescents, thus being required to have the ability to intervene in the prevention and management of AB.

The main postulate of the aggression management model is that interventions should be implemented as early as possible in the patient's behavioral chain, promoting their autonomy and dignity, as well as the safety of the care environment for health professionals and patients (NICE, 2024; Tremmery et al., 2014).

This behavioral management, as a good care practice, should focus on prevention, early intervention and de-escalation measures (Masters & Bellonci, 2002; NICE, 2024), to avoid escalation and recourse to more restrictive measures is used, with an impact on care at the ethical, quality and safety levels but also on the therapeutic relationship. The clinical observation of patients plays a key role in the implementation of the abovementioned measures because it allows for the detection of alarm signals in the behavioral chain, allowing for an early intervention in line with the identified risk.

Most interventions used by nurses with adolescents in mental health settings focus on specific techniques to manage aggression and defend themselves. However, it should be noted that prevention and treatment of aggressive behaviors seem to be a neglected nursing research areas (Hage et al., 2009).

These authors also mention the existence of literature with a clear focus on the risk factors for AB in adolescence, in contrast to the scarcity of studies addressing intervention programs or nursing interventions, therefore constituting an urgent need for the effective treatment strategies to manage aggressive incidents (Hage et al., 2009; Töllli et al., 2017).

Based on these premises, the decision to conduct a scoping review was aligned with its primary purpose: to map key concepts within a specific area of knowledge—in this case, nursing interventions for the risk management of AB in healthcare settings for adolescents with mental illness.

This review aims to identify the types of evidence available in the literature, offering an overview of what has been studied so far, highlighting existing gaps, and supporting the development of more specific scientific works, such as systematic reviews (Apóstolo, 2017; Peters et al., 2020).

2. Materials and Methods

This scoping review endorse the methodological guidelines proposed by Joanna Briggs Institute (JBI) (Peters et al., 2020) to this type of review.

This review protocol was registered in the Open Science Framework (OSF) platform.

The results will be reported in accordance to the guidelines of the Preferred Reporting Items for Systematic and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) (Tricco et al., 2018).

2.1 Research Question

We designed the review question, according to the Population, Concept, Context (PCC) question formulation framework (Peters et al., 2020):

How is described in the scientific literature the risk management of the aggressive behaviors by nurses in mental health units for adolescents?

In addition to the research question, we also wanted to answer the secondary questions:

What assessment tools are used in the risk assessment of aggressive behavior in mental health units for adolescents?

What are the described results from the use of nursing interventions or risk assessment tools for the management of aggressive behaviors in mental health units for adolescents?

For this scoping review, the defined eligibility criteria are:

Participants – this review considered including studies involving adolescents, aged 10 to 19 years of age (World Health Organization, 2015), with no requirement for a clinical diagnosis of mental illness;

Concept – this review considered all the studies involving nursing interventions or intervention programs for the risk management of aggressive behaviors, this is, all the methods to control aggressive behaviors. We also consider the use of risk assessment tools as an intervention in the risk management of aggressive behavior;

Context – this review considered healthcare units for adolescents with mental illness, more specifically, public or private hospital and forensic units.

Settings such as emergency departments and outpatient, school or home settings will be excluded.

2.2 Search Strategy

The search strategy will be conducted in accordance with the three phases outlined by the JBI (Peters et al., 2020), aiming to identify both published and unpublished studies.

Quantitative, qualitative, and mixed-methods studies—both primary and secondary—will be considered as sources for the scoping review, along with dissertations, opinion pieces, grey literature, and also clinical guidelines or standards issued by health organizations.

Documents written in English, Portuguese, and Spanish will be considered. The search will be limited to studies published from 1 January 2000 till 4 July 2025.

No geographical restrictions will be applied, as the aim is to explore how risk management of aggressive behaviors in adolescents is implemented and perceived across diverse cultural settings.

In the first phase, an initial limited search was conducted in MEDLINE, JBI (Joanna Briggs Institute) Database of Systematic Reviews and Implementation Reports, Cochrane Central Register of Controlled Trials PROSPERO and CINAHL Complete (Cumulative Index to Nursing and Allied Health Literature) databases and only one literature review was identified (Hage et al., 2009) on the subject. This protocol differs from the review conducted by Hage et al., (2009), updating the topic generated by the mapping of existing evidence on nursing interventions and identifying good nursing practices in the management of aggressive behaviors, namely risk management assessment instruments for aggressive behaviors.

The following strategy was used: "nursing interventions" [All Fields] AND "aggressive behavior" OR "Violence and Aggression" OR "Disruptive Behavior" [All Fields] AND "Violence Prevention and Control" OR "Risk Management Methods" [All Fields]. The words included in the titles and abstracts of the relevant articles as well as the index terms used to describe the articles were used to develop a subsequent total search strategy.

To address our research question, we selected search descriptors based on Medical Subject Headings (MeSH) and identified synonyms to ensure the retrieval of relevant studies.

In a second phase, a full search will be performed in CINAHL Complete, MEDLINE Complete databases via an EBSCO interface, PUBMED and SCOPUS (appendix 1). The search strategy, including all keywords and index terms were tailored according to each of the databases or

information source. The reference list of all included sources of evidence were reviewed for additional studies. Unpublished studies were searched in RCAAP - Open Access Scientific Repository of Portugal via EBSCO Discovery Service, Google Scholar and OpenGrey.

Subsequently, in a third phase, we will search additional studies included in the references of the publications included in the reviews, considered to be of interest. In this stage, the participation of the librarians team of Universidade Católica Portuguesa will be requested in order to refine the search results.

All identified references will be organized and managed using Zotero® version 7.0.16 (64-bit). Following a preliminary test, titles and abstracts will be screened using the web-based Rayyan® Intelligent Systematic Review software to remove duplicates and enable a blinded review by two independent reviewers, according to the established eligibility criteria. In cases of disagreement, a third reviewer will be consulted. Studies deemed potentially relevant will be retrieved in full and imported into the software, with duplicates removed.

The study selection process will be reported according to the Preferred Reporting Items for Systematic Reviews and Meta-Analysis extension for scoping reviews (Tricco et al., 2018).

The articles were analyzed in detail considering the eligibility criteria by three independent reviewers. The reasons for exclusion of studies were recorded and reported in the scoping review. Any disagreements arising from the data extraction process by the reviewers will be resolved by discussion and consensus.

2.2 Data extraction

The full texts will be reviewed by two independent reviewers to confirm their relevance and to carry out data extraction using a specifically developed instrument (Table 1) (appendix 2). This tool is considered preliminary and may be refined during the analysis and data extraction process to ensure methodological rigor.

A preparatory test will be conducted by the authors to familiarize themselves with the extraction instrument. The extracted data will include detailed information on participants, key concepts, context, study methodology, and findings relevant to the scoping review questions. If necessary, article authors may be contacted to obtain missing but relevant information.

Responsible for extraction:	
Title:	Risk management of aggressive behaviors in mental health units for adolescents: a <i>scoping review protocol</i>
Research Question:	How is described in the scientific literature the risk management of the aggressive behaviors by nurses in health units for adolescents with mental illness?
Bibliographical data:	
Title	
Author(s):	
Year of Publication:	
Country:	
Methodological Data:	
Type of study:	
Objectives:	
Population and sample:	
Type of health unit:	
Interventions:	
Name of the intervention	
Content of the intervention:	
Main Outcomes:	
Limitations:	

**Concepts associated with the
review question:**

Risk Assessment instruments:

Bibliographical references:

Table 1. Data extraction tool

2.4 Data Synthesis

The identified evidence in the literature will be presented descriptively through tables and/or charts, in alignment with the scope and objectives of the scoping review. This analysis will be carried out independently by each of the reviewers involved in the prior stage, with the third reviewer being consulted as needed to resolve any discrepancies and reach consensus.

3. Presentation and Interpretation of Results

The collected data will be presented in a narrative format, which will include a table, chart or organization chart to map the available evidence in the literature regarding the warning signs of aggressive behavior in adolescents in institutional setting.

This scoping review will contribute to the dissemination of knowledge in a profound area of healthcare. This knowledge gathered will contributing to the identification of nursing interventions carried out by nurses in risk management or aggressive behavior in health units for adolescents with mental illness . This can be used to disseminate nursing good practices regarding interventions or intervention programs in risk management, focusing on early intervention strategies. That will be essential step to reduce the occurrence of AB incidents and the use of restrictive interventions.

4. Conclusions

Aggressive behavior is major issue in healthcare and mental health units for adolescents are not an exception. Although varied interventions in adult settings are mentioned in the literature, nursing research in the adolescents setting in mental health units is identified as a research gap, but also little is known about its impact in nursing risk management of aggressive behavior.

Nursing interventions to manage the risk of aggressive behaviors should be focused in an early intervention, prevention and de-escalation strategies, promoting less restrictive interventions with improved outcomes to the patient, staff and therapeutic milieu. Clinical instruments should be also considered for a structured nursing risk assessment and subsequent use of nursing interventions or models.

With this scoping review, we have the intention to map and synthesize the knowledge for promoting the continuing research in a issue considered a priority and allow valuable outcomes in care, with impact to all the involved in healthcare settings.

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