

Early warning signs of adolescents aggressive behavior risk in institutional setting: a scoping review protocol

António Ferreira ^{1*}, Frans Fluttert ², Tiago Cardoso ³, Amorim Rosa ⁴, Luís Sá ⁵

¹ PhD Student in Nursing, Universidade Católica Portuguesa, Faculdade de Ciências da Saúde e Enfermagem, Institute of Health Sciences, Center for Interdisciplinary Health Research (CIIS), Mental Health and Psychiatric Nurse, Unidade Local de Saúde de São José, Lisboa, Portugal; ORCID: <https://orcid.org/0000-0003-4499-8127>

² Forensisch Psychiatrisch Centrum Dr. S. van Mesdag AZ Groningen NL; Molde University College; Centre for Research & Education in Forensic Psychiatry, Oslo University Hospital;

³ PHD in Nursing, Universidade Católica Portuguesa, Faculdade de Ciências da Saúde e Enfermagem, Institute of Health Sciences, Center for Interdisciplinary Health Research (CIIS), Mental Health and Psychiatric Nurse, Hospital Lusíadas Amadora, Portugal; ORCID: <https://orcid.org/0000-0001-7026-857X>

⁴ Associate Professor, The Health Sciences Research Unit: Nursing (UICISA: E), Nursing School of Coimbra (ESENFC), 3004-011 Coimbra, Portugal; ORCID: <https://orcid.org/0000-0002-4847-637X>

⁵ Associate Professor, Universidade Católica Portuguesa, Faculdade de Ciências da Saúde e Enfermagem, Institute of Health Sciences, Center for Interdisciplinary Health Research (CIIS); ORCID: <https://orcid.org/0000-0001-9687-413X>

* Correspondence: s-alttferreira@ucp.pt;

Abstract:

Background/Objectives: Aggressive behaviors (AB), to self or directed to others is a problem in mental healthcare. Most of these are escalating behaviors initiated by early warning signs, which, through early identification by nurses, allows for early intervention with an impact on the use of restrictive methods. However, there are gaps in research into these signs, particularly in the adolescent population. The aim of this study is to map the existing research on the warning signs of AB in adolescent inpatients in institutional setting.

Methods: A scoping review was conducted regarding the methodological framework proposed by the Joanna Briggs Institute (JBI). The search strategy was refined to identify eligible studies. This was performed accordingly to each database/repository. Titles and abstracts of published and unpublished studies were assessed regarding the inclusion criteria. The data selection, extraction and analysis process was performed by two independent reviewers.

Results: This review included quantitative, qualitative and mixed method studies. Primary studies, systematic reviews, dissertations, opinion texts and gray literature were considered regarding the three steps defined by JBI for scoping reviews. **Conclusions:** This scoping review will contribute to identify the warning signs of adolescents aggressive behavior in institutional setting, enhancing nurses' early intervention in preventing and managing the risk of these behaviors occurring.

Keywords: Adolescent; Aggressive Behaviour; Institution; Protocol Review; Risk Management; Warning Signs;

1. Introduction

Aggressive behavior (to self- and/or hetero-aggressive behavior) (AB) is a growing problem in a variety of contexts (1), particularly healthcare, which is identified in the literature as a global health problem that is taking on epidemic proportions (2,3).

This phenomenon represents a multifaceted character in adolescence that persistently challenges society (4), constituting a matter of concern (5) which associated immediate and long-term negative prognoses for victims and aggressors (6) as well as for the family and society (7).

Considering that up to 50 per cent of all mental illnesses begin before the age of 14 (2), and it is estimated that around 20 per cent of children and adolescents experience a mental disorder before they reach the age of 18 (Lantta et al., 2020), problems related to mental illness in adolescence account considerably to the overall burden of disease, being the leading cause of disability in young people (8).

Acute behavioral change in adolescents, mostly manifested by self or hetero-aggressive behaviors, although often not diagnosed by a non-specific sign, are one of the main causes of admission into mental health services (7) and urgency child psychiatric care (9), being also main reasons for psychiatric hospitalisation (10–12).

Psychiatric hospitalization for AB in an acute or crisis admission in adolescents is regarded as an option when other less restrictive settings cannot provide a safe response (13). However, considering the need for continuity of provided care, a residential setting could be a post hospitalization choice, providing constant monitoring the safety concerns (13), yet remaining the management of AB in adolescents is a remaining challenge at any institutional setting (14).

The occurrence of AB in the context of hospitalization has real impact on patients and professionals (15,16), and is one of the main reasons for the use of restrictive measures such as isolation or chemical, physical or mechanical restraint (17–19).

Although these measures are intended to therapeutically protect the patient, other patients and professionals, they are criticized for conditioning self-determination and autonomy (14), for its lack of evidence regarding their therapeutic nature or clinical benefits (20) and also for the possibility of adverse events, particularly in the context of minors (11). This calls for the use of earlier, less restrictive and safer interventions (14), such as risk assessment and management of aggressive behavior as a structured methodology. With this in consideration, professionals in mental health settings are often asked to individually and in a structured process to assess the risk of violence (21) towards other patients as well as the potential for the occurrence of adverse events such as suicide or self-injurious behavior (22,23). This should be based by assessment on instruments structured by specific behavioral signs and translated into risk for the occurrence of these events.

The review conducted by Papadopoulos and collaborators (24) in the adult population identifies that patients present behavioral signs that immediately precede in around 38% of incidents. This suggests a considerable window of time to the recognition of the signs of impending aggression and subsequently adjust interventions to prevent its occurrence, thus translating into early intervention.

Early warning signs are defined as subjective experiences, thoughts and behaviors that precede the occurrence of aggressive behavior (25,26). These, represent a continuum between an initial stage of deterioration in behavior and a stage close to the occurrence of aggression, which can be perceived by the user or observed by others in the user's environment (27). These warning signs are part of the process of behavioral deterioration, which stems from the user's exposure to stress in relation to their coping, and their exacerbation requires the intervention of professionals to prevent behavioral escalation. In this process, identifying warning signs and applying early interventions can restore balance and reduce risk (27,28).

However, the lack of knowledge about the warning signs of AB is a barrier to reducing restrictive measures (29), which is a pressing need for research, particularly when regarding adolescents.

Considering these premises, the choice to carry out a scoping review was related to the main objective proposed for this type of literature review, the mapping of key concepts for a given area of knowledge, in this case, the early warning signs for aggressive behavior (self and hetero - aggressive) in adolescents in the institutional context. This review thus aims to map the types of evidence in the literature, providing an overview of what has already been studied but also of the existing gaps, and to support the development of other specific scientific work, such as systematic reviews (30,31).

2. Materials and Methods

A preliminary search was carried out in the databases JBI (Joanna Briggs Institute) Database of Systematic Reviews and Implementation Reports, PROSPERO, Open Science Framework (OSF) and PUBMED. No literature reviews were identified on this subject in the adolescent population.

This review protocol was registered in the Open Science Framework (OSF) platform, and the results were reported according to the guidelines of the Preferred Reporting Items for Systematic and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) (32).

2.1. Research question

This scoping review adopts the methodological guidelines proposed by Joanna Briggs Institute (JBI) (31) to this type of review. We designed the review question, according to the Population, Concept, Context (PCC) question formulation framework (31):

1. What are the warning signs of aggressive behavior risk presented by adolescents in institutional settings?

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

2. Which instruments are used for short-term (<24h) risk assessment of aggressive behavior?
3. Which early warning signs are present in short-term (<24h) risk assessment tools for aggressive behavior?
4. Which results are described using short-term (<24h) risk assessment instruments for aggressive behavior?
5. Which risk factors or variables are associated with the likelihood of aggressive behavior?

For this scoping review, the defined eligibility criteria are:

Participants: this review considered including studies involving adolescents, aged 10 to 19 years of age (33), without the requirement of a clinical diagnosis of mental illness.

Concept: this review considered all the studies involving early warning signs of aggression, which are defined as changes in the individual, thoughts, perceptions, feelings and behaviors of the patient that precipitate aggressive behavior (25,26). This represents a continuum between an initial phase of deterioration in behavior and a proximal phase of the occurrence of AB (27), regarding the self-directed and hetero-aggressive behavior warning signs.

Context: this review considered including studies addressing institutional units for adolescents, specifically hospital inpatient or forensic units, acute pediatrics settings, reception centers or homes that include units for the treatment of substance and alcohol abuse, prisons, correctional establishments and youth detention. In this regard there is no exclusion criteria for geographical location.

Adolescents with learning difficulties, intellectual and developmental disabilities, emergency departments and outpatient, school or home settings will be excluded.

2.2. Search strategy

The search strategy will aim to locate published and unpublished studies and will be conducted according to the three phases defined by the JBI (31).

Primary and secondary quantitative, qualitative or mixed-methodology studies will be considered as sources for the scoping review, as dissertations, opinion articles and grey literature, as well as clinical guidelines and standards or guidelines issued by health entities. The time frame of the search will be studies from 1 January 2000 to 31 December 2024, given that there has been an increase in publications on these behaviors since 2000.

No geographical limits will be set for the studies as the aim is to gain an understanding of how the warning signs of aggressive behavior in adolescents are identified in different cultural contexts.

In the first phase, a limited initial search will be carried out in PUBMED, JBI Evidence Synthesis, PROSPERO and Open Science Framework in order to identify articles on the subject. For these databases, the following strategy will be used: "Warning signs" [All Fields] AND "Aggression" OR "Adolescent" [All Fields] AND "Institutional settings" [All Fields]. The words included in the titles and abstracts of the relevant articles as well as the indexed terms used to describe the articles will be used to develop a subsequent total search strategy.

To answer our research question, we identified search descriptors according to the Medical Subject Headings. We identified synonyms to locate relevant studies.

In a second phase, a full search will be carried out in the databases PUBMED (appendix 1), SCOPUS, APA PsycArticles and CINAHL Complete databases via an EBSCO interface. The search strategy, including all keywords and indexed terms, will be adapted according to each database or information source. The list of references from all the sources of evidence included will be analyzed for additional studies. Unpublished studies will also be searched for in RCAAP - Portugal's Open Access Scientific Repository via B-On interface and ProQuest Dissertations & Theses Index via Web of Science. In this stage, the participation of the librarians team of Universidade Católica Portuguesa will be requested in order to refine the search results.

Subsequently and in a third phase, additional studies will be searched for in the references of the included publications in the reviews.

All sources that fulfil the inclusion criteria and answer the review questions will be considered, as well as reviews with sections for the adolescent population. Studies that do not fulfil the criteria outlined above will be excluded.

All identified references will be grouped and managed in Zotero® 6.0.36/2023 software. After a preliminary test, the titles and abstracts will be screened using the Rayyan® Intelligent Systematic Review web version software in order to remove duplicates and to allow a blind review by two independent reviewers based on the eligibility criteria for the review. In case of disagreement, a third reviewer will intervene. Results considered potentially relevant were retrieved in their entirety and imported into the software, eliminating duplicate articles. The study selection process will be reported according to the Preferred Reporting Items for Systematic Reviews and Meta-Analysis extension for scoping reviews (32).

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

2.3. Data extraction

The full texts will be read by two reviewers and confirm their relevance and conducted the data extraction according to the instrument developed for this purpose (Table 1). This instrument was preliminary and could be altered during the analysis and extraction of data according to the relevance for the methodological rigor of this process. A preparatory test will be conducted by the authors to become familiar with the extraction tool. The data extracted included detailed information about participants, concepts, context, study methodology and findings considered relevant to the questions on which the scoping review was focused. If appropriate, the authors of the articles may be contacted to request missing data considered relevant.

Table 1. Data extraction tool

| | |
|---------------------------------------|--|
| Responsible for extraction: | _____ |
| Title: | Early warning signs of adolescents aggressive behavior risk in institutional setting: a scoping review protocol |
| Research Question: | What are the warning signs of aggressive behavior risk presented by adolescents in institutional settings? |
| Bibliographical data: | Title |
| | Author(s): |
| | Year of Publication: |
| | Periodical which was published: |
| | Country: |
| Methodological Data: | Type of study: |
| | Objectives: |
| | Population and sample: |
| | Type of health unit: |
| | Research design: |
| Extracted Data from studies | Data collection method: |
| | Warning signs mentioned: |
| | Main Results: |
| | Limitations: |
| | Risk assessment instruments used for short-term (<24h) assessment of self/hetero-aggressive behavior: |
| Other relevant concepts/issues | Warning signs present in short-term risk assessment instruments (<24h) for self/hetero-aggressive behavior: |
| | Described results by the use of short-term risk assessment instruments (<24h) for self/hetero-aggressive behavior: |
| Other relevant concepts/issues | Risk factors or variables mentioned: |
| | Bibliographical references: |

2.4 Data Synthesis

The evidence found in the literature will be presented descriptively in tables and/or charts, considering the scope and objectives of the scoping review. This process will be conducted independently by each of the reviewers involved in the previous step, and a third reviewer may later be involved to obtain consensus on the differences found.

3. Presentation and Interpretation of Results

The collected data collected 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. Thus, it will be possible to analyze the methodology of the studies and therefore identify gaps in the available knowledge but also the identification of risk factors that could be accounted by nurses.

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 the early warning signs of AB in adolescents in institutional settings. This can be used to develop new tools or intervention programs focusing on warning signs but also promoting an early intervention strategy for nurses. That will be essential step to reduce the occurrence of AB incidents and the use of restrictive interventions.

4. Conclusions

AB is major issue in healthcare and mental health units, which is not an exception for adolescents. Although interventions regarding warning signs 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 behaviors.

Nursing interventions regarding early warning signs allow early intervention and a person-centered risk management intervention, decreasing incidents, promoting less restrictive interventions, translated in greater safety and quality of care with improved outcomes to the patient, staff and therapeutic *milieu*.

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

Use of Artificial Intelligence: “AI or AI-assisted tools were not used in drafting any aspect of this manuscript”.

Acknowledgments: The authors acknowledge the technical and knowledge support given by Dra. Maria Perdigão and the librarians team of Universidade Católica Portuguesa.

Conflicts of Interest: “The authors declare no conflict of interest”.

References

1. Parada-Fernández P, Herrero-Fernández D, Rodríguez-Arcos I. The moderation effect of mentalization in the relationship between impulsiveness and aggressive behavior. *Scandinavian J Psychology*. dezembro de 2023;64(6):794–801.
2. Iozzino L, Ferrari C, Large M, Nielssen O, De Girolamo G. Prevalence and risk factors of violence by psychiatric acute inpatients: A systematic review and meta-analysis. *PLoS ONE*. junho de 2015;10(6).
3. Lantta T, Varpula J, Cheung T, Wong WK, Cheng PYI, Ng T, et al. Prevention and management of aggressive behaviour in patients at psychiatric hospitals: a document analysis of clinical practice guidelines in Hong Kong. *International Journal of Mental Health Nursing*. 2020;29(6):1079–91.
4. Berg J. *Aggression and its Management in Adolescent Forensic Psychiatric Care*. [Turku]: Turun Yliopisto University of Turku; 2012.
5. Hayes C, Simmons M, Simons C, Hopwood M. Evaluating effectiveness in adolescent mental health inpatient units: A systematic review. *Int J Mental Health Nurs*. abril de 2018;27(2):498–513.
6. Castillo-Eito L. *Reducing Aggression in Adolescence: Identifying Effective Behaviour Change Techniques*. [Sheffield]: The University of Sheffield Faculty of Science Department of Psychology; 2020.
7. Balía C, Carucci S, Milone A, Romaniello R, Valente E, Donno F, et al. Neuropsychological Characterization of Aggressive Behavior in Children and Adolescents with CD/ODD and Effects of Single Doses of Medications: The Protocol of the Matrics_WP6-1 Study. *Brain Sciences*. 11 de dezembro de 2021;11(12):1639.
8. WHO. Mental health of adolescents [Internet]. 2021 [citado 15 de janeiro de 2024]. Disponível em: <https://www.who.int/news-room/fact-sheets/detail/adolescent-mental-health>
9. Scivoletto S, Boarati MA, Turkiewicz G. Emergências psiquiátricas na infância e adolescência *Psychiatric emergencies in childhood and adolescence*. 2010. (Revista Brasileira de Psiquiatria •; vol. 32).
10. Dean AJ, Duke SG, George M, Scott J. Behavioral management leads to reduction in aggression in a child and adolescent psychiatric inpatient unit. *Journal of the American Academy of Child and Adolescent Psychiatry*. junho de 2007;46(6):711–20.
11. Greene RW, Ablon JS, Martin A. Innovations: *Child & Adolescent Psychiatry: Use of Collaborative Problem Solving to Reduce Seclusion and Restraint in Child and Adolescent Inpatient Units*. PS. maio de 2006;57(5):610–2.

12. Tremmery S, Danckaerts M, Bruckers L, Molenberghs G, De Hert M, Wampers M, et al. Registration of aggressive incidents in an adolescent forensic psychiatric unit and implications for further practice. *European child & adolescent psychiatry*. 2014;23(9):823–33.
13. Thompson AD, Ramasamy R, Simmons S, Gurtovenko K, Caufield S, Sasser T, et al. What Do We Do When Things Fall Apart? Rapid Creation of a Pilot Psychiatric Intensive Care Unit in Response to Increased Acuity on a Psychiatric Inpatient Unit for Children and Adolescents. *Evidence-Based Practice in Child and Adolescent Mental Health*. 2 de outubro de 2021;6(4):435–46.
14. Berg J, Kaltiala-Heino R, Välimäki M. Management of aggressive behaviour among adolescents in forensic units: a four-country perspective: Management of adolescent aggression. *Journal of Psychiatric and Mental Health Nursing*. novembro de 2011;18(9):776–85.
15. Faay MDM, Valenkamp MW, Nijman H. Warning Signs prior to Aggressive Behavior in Child Psychiatric Units. *Archives of Psychiatric Nursing*. fevereiro de 2017;31(1):43–7.
16. NICE. Violence and aggression: short-term management in mental health, health and community settings [Internet]. 2015 [citado 28 de outubro de 2022]. Disponível em: <https://www.nice.org.uk/guidance/ng10/resources/violence-and-aggression-shortterm-management-in-mental-health-health-and-community-settings-pdf-1837264712389>
17. Duxbury J, Whittington R. Causes and management of patient aggression and violence: staff and patient perspectives. *J Adv Nurs*. junho de 2005;50(5):469–78.
18. Meehan T, Mansfield Y, Stedman T. Development of a checklist to aid in the assessment of ‘failure to return’ from approved leave by acute inpatients. *International Journal of Mental Health Nursing*. 2019;28(4):989–96.
19. Sukhodolsky DG, Cardona L, Martin A. Characterizing Aggressive and Noncompliant Behaviors in a Children’s Psychiatric Inpatient Setting. *Child Psychiatry Hum Dev*. dezembro de 2005;36(2):177–93.
20. Sailas EE, Fenton M. Seclusion and restraint for people with serious mental illnesses. Cochrane Schizophrenia Group, editor. *Cochrane Database of Systematic Reviews* [Internet]. 24 de janeiro de 2000 [citado 14 de janeiro de 2024]; Disponível em: <https://doi.wiley.com/10.1002/14651858.CD001163>
21. O’Shea LE, Picchioni MM, Mason FL, Sugarman PA, Dickens GL. Differential predictive validity of the Historical, Clinical and Risk Management Scales (HCR–20) for inpatient aggression. *Psychiatry Research*. dezembro de 2014;220(1–2):669–78.
22. Goldston DB. Measuring suicidal behavior and risk in children and adolescents. [Internet]. Washington: American Psychological Association; 2003 [citado 13 de janeiro de 2024]. Disponível em: <http://content.apa.org/books/10609-000>
23. Viljoen JL, McLachlan K, Vincent GM. Assessing violence risk and psychopathy in juvenile and adult offenders: a survey of clinical practices. *Assessment*. setembro de 2010;17(3):377–95.
24. Papadopoulos C, Ross J, Stewart D, Dack C, James K, Bowers L. The antecedents of violence and aggression within psychiatric in-patient settings. *Acta Psychiatr Scand*. junho de 2012;125(6):425–39.
25. Fluttert F, Van Meijel B, Webster C, Nijman H, Bartels A, Grypdonck M. Risk Management by Early Recognition of Warning Signs in Patients in Forensic Psychiatric Care. *Archives of Psychiatric Nursing*. agosto de 2008;22(4):208–16.
26. Van Meijel B, Van Der Gaag M, Kahn RS, Grypdonck MHF. Relapse prevention in patients with schizophrenia. *Archives of Psychiatric Nursing*. junho de 2003;17(3):117–25.
27. Fluttert. Management of Inpatient Aggression in Forensic Mental Health Nursing: The application of the Early Recognition Method. 2010;

28. American Psychiatric Nursing Association. Position statement: The use of seclusion and restraints. Retrieved from [Internet]. 2022 [citado 6 de fevereiro de 2024]. Disponível em: https://www.apna.org/files/public/Seclusion_&_Restraint_Position_Paper.pdf
29. Kasinathan J, Marsland C, Batterham P, Gaskin C, Adams J, Daffern M. Assessing the risk of imminent aggression in mentally ill young offenders. *Australasian psychiatry : bulletin of Royal Australian and New Zealand College of Psychiatrists*. fevereiro de 2015;23(1):44–8.
30. Apóstolo J. Síntese da evidência no contexto da translação da ciência. Coimbra: Escola Superior de Enfermagem de Coimbra (ESEnFC); 2017.
31. Peters M, Godfrey C, McInerney P, Munn Z, Tricco A, Khalil H. Chapter 11: Scoping reviews. Em: *JBI Manual for Evidence Synthesis*. JBI; 2020.
32. Tricco AC, Lillie E, Zarin W, O'Brien KK, Colquhoun H, Levac D, et al. PRISMA extension for scoping reviews (PRISMA-ScR): Checklist and explanation. *Annals of Internal Medicine*. outubro de 2018;169(7):467–73.
33. World Health Organization. The global strategy for women's, children's, and adolescents' health (2016–30). [Internet]. 2015 [citado 14 de janeiro de 2024]. Disponível em: <http://www.who.int/life-course/partners/global-strategy/ewec-globalstrategyreport-200915.pdf?ua=1>

Appendix 1 - Database search (31/12/2024)

| Database | Expression | Results |
|----------|--|---------|
| PubMed | <p>((("warning signs"[Title/Abstract] OR "escalating behaviour"[Title/Abstract] OR "escalating behavior"[Title/Abstract] OR "behavioral escalation"[Title/Abstract] OR "behavioural escalation"[Title/Abstract] OR "deteriorating behaviour"[Title/Abstract] OR "deteriorating behavior"[Title/Abstract] OR imminent[Title/Abstract] OR "short-range"[Title/Abstract] OR "24 hours"[Title/Abstract] OR immediate[Title/Abstract] OR instant[Title/Abstract] OR dynamic[Title/Abstract] OR rapid[Title/Abstract] OR prompt[Title/Abstract]) AND (((((((Hostility[Title/Abstract] OR "Behavioural Symptom*"[Title/Abstract] OR "Behavioral Symptom*"[Title/Abstract] OR "Problem* behavior*"[Title/Abstract] OR "Behavior Problem*"[Title/Abstract] OR aggression[Title/Abstract] OR aggressive[Title/Abstract] OR "aggressive behavior*"[Title/Abstract] OR "violence and Aggression"[Title/Abstract] OR "Disruptive Behavior"[Title/Abstract] OR Violence[Title/Abstract] OR violent[Title/Abstract] OR "Acting Out"[Title/Abstract] OR "Self-Injur*"[Title/Abstract] OR "Self Harm"[Title/Abstract] OR Suicide[Title/Abstract]) OR (Hostility[MeSH Terms]) OR ("Behavioral Symptoms"[MeSH Terms]) OR ("Problem Behavior"[MeSH Terms]) OR (aggression[MeSH Terms]) OR (Violence[MeSH Terms]) OR ("Self-Injurious Behavior"[MeSH Terms]) OR (Suicide[MeSH Terms]))) AND (((youth*[Title/Abstract] OR "young people"[Title/Abstract] OR youngster*[Title/Abstract] OR junior*[Title/Abstract] OR juven*[Title/Abstract] OR teen*[Title/Abstract] OR minor*[Title/Abstract] OR Adolescent*[Title/Abstract] OR (Adolescent[MeSH Terms]) OR (Minors[MeSH Terms]))) AND (((((((psychiatr*[Title/Abstract] OR "psychiatric unit*"[Title/Abstract] OR "adolescent psychiatr*"[Title/Abstract] OR "forensic psychiatry*"[Title/Abstract] OR "inpatient psychiatr*"[Title/Abstract] OR inpatient*[Title/Abstract] OR "inpatient mental health"[Title/Abstract] OR "forensic mental health"[Title/Abstract] OR "foster care"[Title/Abstract] OR "foster home"[Title/Abstract] OR "detention center*"[Title/Abstract] OR "residential care"[Title/Abstract] OR "child* home"[Title/Abstract] OR Jail*[Title/Abstract] OR "Correctional Facilit*"[Title/Abstract] OR "Correctional Institution*"[Title/Abstract] OR "Residential Facilit*"[Title/Abstract] OR "Group Homes"[Title/Abstract] OR Orphanage*[Title/Abstract]) OR ("Adolescent Psychiatry"[MeSH Terms]) OR ("Forensic Psychiatry"[MeSH Terms]) OR (inpatients[MeSH Terms]) OR (Jails[MeSH Terms]) OR ("Residential Facilities"[MeSH Terms]) OR ("Group Homes"[MeSH Terms]) OR (Orphanages[MeSH Terms]))</p> | 807 |

