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1 **Admission and discharge criteria for adolescents requiring inpatient or residential mental health**
2 **care: A scoping review**

3
4 **Introduction**

5 This review will scope the literature relating to the admission and discharge criteria for adolescents over
6 eleven and under nineteen years old that receive inpatient or residential mental health care. For ease of
7 understanding the term 'adolescents' will be used but it is acknowledged that other terms, 'youth', 'young
8 adults' 'teenagers' and 'young people' are used within the literature. An inpatient service is defined as a
9 unit with 'hospital beds' that provides 24-hour nursing care.¹ Residential treatment centers usually house
10 youths with significant psychiatric, psychological, behavioral, or substance abuse problems for whom
11 outpatient treatment has been unsuccessful.²

12
13 In the United Kingdom (UK), it is estimated that one in ten children and adolescents aged between five
14 and sixteen has a diagnosable mental health problem.³ This is also an area of international concern.⁴
15 Children and adolescents with the highest levels of need are cared for in hospital but there is a high
16 demand for these beds and a general lack of agreement regarding what are the criteria for admission to
17 such units. For example, there were 720 admissions during 2013 into Mc-Master Children's Hospital's
18 child and adolescent psychiatry unit, Ontario, Canada what are the criteria for admission to such units.
19 For example, there were 720 admissions during 2013 into Mc-Master Children's Hospital's child and
20 adolescent psychiatry unit, Ontario, Canada⁵ and a study in New Zealand⁶ showed an marked increase in
21 admissions by 80% for children aged 4-17 following the Canterbury earthquakes. In a European survey of
22 provision of child and adolescent mental health services it was found that there is a considerable
23 difference between 28 countries, with fewer than two beds per 100 000 adolescents in Portugal and
24 Sweden to more than 50 beds per 100 000 adolescents in Germany and the Netherlands.⁷ Typically,
25 decisions on who to admit to inpatient child and adolescent mental health services (CAMHS) in the UK
26 take place within limited bed capacity, with perceptions of 'risk' uppermost but can vary upon external
27 triggering factors and context for example suicidal attempts. Negotiating access to inpatient beds for
28 adolescents can be fraught with difficulties⁸ and with the development of effective community based
29 interventions for common mental health presentations in adolescents, the focus and function of inpatient
30 care is changing.⁹ Inpatient care is often currently selected because the round-the-clock availability of
31 nursing staff makes it possible to keep adolescents safe while assessments and interventions of their
32 mental health is addressed.

33
34 The Royal College of Psychiatrists in the UK is currently engaged in a piece of work to create a guidance
35 document that can advise on the scope and criteria to warrant admissions to adolescent inpatient mental
36 health units the UK. This will have international applicability given the challenges over access and
37 demand for services are similar across Canada, Australasia and Europe.^{7,10} There are a number of

38 sources of good practice to which CAMHS inpatients can refer^{11,12} but there is now an opportunity to
39 ensure that any further guidance documentation produced is supported by an underpinning robust
40 evidence base.

41
42 The Quality Network for Inpatient CAMHS (QNIC) standards, developed by the Royal College of
43 Psychiatrists were introduced in the UK 2001 and have been reviewed biannually since. They provide
44 service standards against which inpatient CAMHS units can elect to be audited.¹¹ One of the sections in
45 this audit document covers access and admission. Within this category, one statement is that senior
46 clinical staff members make decisions over the admission of an adolescent and this can be moderated if
47 safety or therapeutic activity will be affected in their view. There is a further statement that adolescents at
48 severe risk can be admitted as emergencies. There are standards relating to process for exceeding bed
49 capacity, for not admitting and for effective discharge planning. What is absent are specific criteria about
50 what adolescents present with that determine whether admission is required. Similarly there is a lack of
51 agreed criteria for when discharge is indicated.

52
53 In the national mapping of the CAMHS inpatient units across England¹² it was highlighted that there was
54 high demand and limited capacity to provide inpatient mental health care for this population, suggesting
55 as a solution for the patient flow the introduction of a pre-admission assessment. A preliminary search
56 for existing scoping and systematic reviews was conducted looking for admission criteria for adolescent
57 inpatient mental healthcare. The search was conducted on the following databases: Campbell
58 Collaboration Library of Systematic Reviews; Cochrane Database of Systematic Reviews, Evidence for
59 Policy and Practice Information Centre databases; JBI Database of Systematic Reviews and
60 Implementation Reports, International Prospective Register of Systematic Reviews (PROSPERO); Social
61 Care Institute for Excellence database; CINAHL and PsycINFO. There are two reviews registered on
62 PROSPERO that are looking at characteristics of inpatient CAMHS and treatment outcomes^{13,14} but
63 neither are addressing admission criteria. In the Campbell Collaboration database, there was one
64 published review looking at the effectiveness of treatment foster care for adolescents, but not specifically
65 criteria for admission.¹⁵

66
67 This proposed scoping review will therefore fill in the gap in the literature while at the same time providing
68 the evidence base for the Royal College of Psychiatrists guidance document.

69

70 **Review Question**

71 The question of this review is

72 What are the admission and discharge criteria for adolescents to mental health inpatient care?

73 The objectives will be

- 74 • To identify the criteria for admission to mental health inpatient or residential care for adolescents

- 75 • To identify the criteria for discharge from mental health inpatient or residential care for
76 adolescents
- 77 • To identify the criteria for not admitting adolescents to mental health inpatient or residential care
78

79 **Keywords**

80 Adolescents; mental health, admission, discharge

81

82 **Inclusion Criteria**

83 **Participants**

84 This scoping review will consider all studies that focus on adolescents between the ages of eleven and
85 nineteen years, presenting with mental health difficulties suggestive of meeting diagnostic criteria i.e DSM
86 V and ICD 10 on admission to an inpatient mental health unit or residential treatment centres and is
87 inclusive and may encompass psychosis, eating disorders and mood disorders.
88

89 **Concept**

90 Reason for admission to inpatient mental health care; for example severe self-harming behaviour.

91 Reason for discharge from inpatient mental health care, for example no longer an immediate risk to self .

92 Reason for not admitting to inpatient mental health care, for example can be managed safely at home

93

94 **Context**

95 This scoping review will consider studies that have been conducted in facilities that provide mental health
96 inpatient or residential care for adolescents. This will include hospitals, independent health units and
97 residential treatment centres.
98

99 **Types of studies**

100 This scoping review will consider quantitative and qualitative and textual and opinion data

101

102 Quantitative

103 This scoping review will consider both experimental and quasi-experimental study designs including
104 randomized controlled trials, non-randomized controlled trials, before and after studies and interrupted
105 time-series studies. In addition, analytical observational studies including prospective and retrospective
106 cohort studies, case-control studies and analytical cross-sectional studies will be considered for inclusion.

107 This review will also consider descriptive observational study designs including case series, individual
108 case reports and descriptive cross-sectional studies for inclusion.
109

110 Qualitative

111 This scoping review will consider studies that focus on qualitative data including, but not limited to,
112 designs such as phenomenology, grounded theory, ethnography, action research and feminist research.

113
114 Textual and opinion

115 This scoping review will consider standards for clinical care, consensus guidelines, narrative case reports,
116 literature reviews including expert opinion, published discussion papers, government policy reports or
117 reports accessed from web pages of professional organizations.

118
119 Studies published in the English language will be included. Studies published from 2009 to the present
120 will be included. In 2009 Kurtz published a review for the UK Department of Health identifying the
121 'Evidence Base for Tier 4 CAMHS' (inpatient provision) drawing on the evidence available at that point.¹³
122 In this review, Kurtz identified that the inpatient services were developing from not only inpatient services,
123 but to develop complex outpatient 'wrap around services' for adolescents, and that the inpatient services
124 should be reserved for 'highly specialist assessment in a controlled environment and away from the
125 family'. The review recognized that although there may be benefits in this approach, it would not
126 necessarily be the best intervention for all adolescents and recommended a comprehensive pre-
127 admission evaluation of the child's suitability for treatment in a psychiatric inpatient setting before
128 admission.¹⁶ This scoping review will consider studies published since the publication of this 2009
129 report.

130
131 **Exclusion Criteria**

132 The exclusion criteria for this scoping review are as follows:

133 Papers that do not report empirical studies.

134 Studies that focus primarily on children (under the age of eleven) or adults (over the age of nineteen).

135 Studies that focus on alternatives to inpatient care.

136 Services specifically for learning disabilities only and forensic services

137
138
139 **Methods**

140 The proposed scoping review will be conducted in accordance with the Joanna Briggs Institute
141 methodology for scoping reviews.¹⁷

142
143 **Search Strategy**

144 The search strategy will aim to locate both published and unpublished studies. An initial limited search of
145 PsycINFO and CINAHL has been undertaken followed by analysis of the text words contained in the titles
146 and abstract, and of index terms used to describe the articles. This informed the development of a search
147 strategy which will be tailored for each information source. A full search strategy for PsycINFO is detailed

148 in Appendix I. The search strategy, including all identified keywords and index terms will be adapted for
149 each included information source. The reference list of all included studies selected for will be screened
150 for additional studies.

151

152 **Information Sources:**

153 The databases to be searched will include:

154 On the OVID platform:

155 MEDLINE

156 EMBASE

157 PsycINFO

158

159 On the EBSCO platform:

160 CINAHL

161 ERIC

162

163 On the ProQuest platform

164 British Nursing index

165 ASSIA

166 ProQuest Dissertations & Thesis

167

168 The trial registers to be searched include:

169 Cochrane Central Register of Controlled Trials

170

171 The search for unpublished studies and other gray literature will include:

172 OpenGrey

173 e-thesis online service for the British Library (Ethos)

174 Websites of professional organisations; for example Royal College of Psychiatrists, Royal College of

175 Nursing, International Society for Psychiatric Nursing, Headspace, Canadian Mental Health Association.

176

177 Contacting authors, experts and organisations active within the phenomenon of interest to attempt to

178 identify further published, un-published and ongoing studies.

179

180 **Study Selection**

181 Following the search, all identified citations will loaded into Endnote V7.7.1 (Clarivate Analytics, PA, USA)

182 and duplicates removed. Titles and abstracts will then be screened by two independent reviewers for

183 assessment against the inclusion criteria for the review. Potentially relevant studies will be retrieved in full

184 and their citation details imported into the Joanna Briggs Institute's System for the Unified Management,

185 Assessment and Review of Information (JBI SUMARI; The Joanna Briggs Institute, Adelaide, Australia).
186 The full text of selected citations will be assessed in detail against the inclusion criteria by two
187 independent reviewers. Reasons for exclusion of full text studies that do not meet the inclusion criteria will
188 be recorded and reported in the scoping review. Any disagreements that arise between the reviewers at
189 each stage of the study selection process will be resolved through discussion, or with a third reviewer.
190 The results of the search will be reported in full in the final report and presented in a Preferred Reporting
191 Items for Systematic Reviews and Meta-analyses (PRISMA) flow diagram,¹⁸ or will be replaced with
192 PRISMA-ScR checklist when it becomes available.¹⁷

193

194 **Data Extraction**

195 The data extracted will include specific details about the populations, study methods and outcomes of
196 significance to the review question and specific objectives. The template data extraction instrument from
197 the JBI Reviewers Handbook chapter on scoping reviews will be adapted to suit this scoping review.¹⁷
198 This is in line with charting the data as outlined in stage four of Arksey and O'Malley's²¹ framework for
199 conducting scoping reviews and updated by Levac et al.²² Any disagreements that arise between the
200 reviewers will be resolved through discussion or with a third reviewer. Authors of papers will be contacted
201 to request missing or additional data where required.

202

203 **Data Presentation**

204 Findings, where possible, will be synthesised and presented in a tabular summary with the aid of
205 narrative and figures where appropriate. The approach described by Arksey and O'Malley²¹ and Levac et
206 al.²² will be followed with an overview of all the included material which will be summarized in tables and
207 charts which map the literature. Literature will be tabulated using the following headings related to
208 research design, geographical location, year of publication, characteristics of study population and the
209 research outcomes. A narrative summary will accompany the tabulated results,²¹ this will describe how
210 the results relate to the review objectives and question.¹⁷

211

212 **Conflicts of Interest**

213 There is no conflict of interest to report regarding this scoping review.

214

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217 supporting QIPP. The NHS Confederation, 2012 [Internet]. [cited 2018 May 16] Available from
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276
277

278 **Appendix I – Initial search strategy for PsycINFO**

Question part	Question term	Search terms
Population	Adolescents presenting with mental health difficulties	((Adolescen* OR Teen* OR Youth OR) AND (Mental adj1 health OR Mental adj1 illness OR Psychiatr* OR Mental Disorders/MESH OR Mental Health/MESH) OR adolescent psychiatry/MESH OR child psychiatry/MESH)
AND		
Concept	Reason for admission or discharge	Admit* OR Admission* OR Discharge* OR Facility admission/MESH OR Hospital Admission/MESH OR Psychiatric Hospital Admission/MESH or Facility Discharge /MESH OR Hospital Discharge/MESH OR Psychiatric Hospital Discharge/MESH OR Discharge Planning/MESH)
AND		
Context	Facilities that provide mental health inpatient or residential care for adolescents	Inpatient OR In-patient OR Residen* OR Psychiatric Hospitalization/MESH OR Psychiatric Hospitals/Mental Health Services/MESH OR Residential Care Institutions OR Community Mental Health Services/MESH OR treatment facilities/MESH

279

280