

# A rapid review of emergency department interventions for children and young people presenting with suicidal ideation

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## INTRODUCTION

- The paediatric emergency department (PED) plays an integral role in ensuring children and adolescents at risk of suicide have timely access to appropriate resources.
- Mental health problems among children and young people appear to be increasing, as does suicidal ideation<sup>1</sup>.
- In early 2020, the Coronavirus Disease 2019 (COVID-19) pandemic began to place an additional significant burden on child mental health and substantially impact psychosocial development<sup>2</sup>.
- Although the strongest predictor for suicide remains a previous suicide attempt, a third of adolescents who experience suicidal ideation for the first time go on to attempt suicide<sup>3,4</sup>.
- Consequently, it is imperative to ensure that interventions offered to children and young people presenting to PED are beneficial.

## RESEARCH QUESTIONS

1. What interventions have been used with children and adolescents presenting to the PED with suicidal ideation?
2. What is the evidence for benefit of these interventions on suicidal ideation, associated mental health symptoms and engagement with outpatient services?

## METHODS

**Data sources:** Six databases were searched on the 17<sup>th</sup> December 2020: PubMed, Web of Science, MEDLINE, PsycINFO, CINAHL and Cochrane. Medical Subject Headings (MeSH) were used to screen titles, abstracts and keywords: “suicidal ideation”, “emergency department”, “children”, “adolescents” and “management”.

**Inclusion criteria:** Articles published from January 2010-December 2020. Participants aged 6-19 years, at least 25% recruited from PED and received psychological/psychosocial/non-pharmacological interventions targeting suicidality. Outcomes included suicidal ideation, depressive symptoms, hopelessness, family empowerment and/or hospitalisation; feasibility of the intervention and outpatient treatment. Randomised Controlled Trials in the English Language, conducted in any country and deployed in a clinical setting.

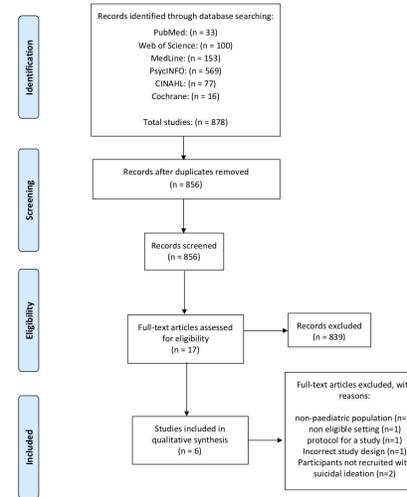
**Data extraction:** using a customised excel spreadsheet. The following data were extracted: study details, design, methods, participants, intervention and outcomes, including statistical significance.

**Data analysis** studies were grouped by intervention and a range of outcome measures were analysed through narrative synthesis using synthesis without meta-analysis (SWiM) guidelines<sup>5</sup>.

## RESULTS

This rapid review was conducted in line with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines and conformed to the steps outlined in the 2009 PRISMA checklist<sup>6</sup>. Results from the literature search are illustrated in **Figure 1**.

**Figure 1:**PRISMA flow diagram



Four studies were family interventions (FI) and two studies were motivational interviewing interventions (MI). The outcomes of interventions are demonstrated in **Table 1**. All studies showed positive effects in the intervention groups on the outcomes measured<sup>7-12</sup>.

**Table 1:** outline of study interventions<sup>7-12</sup>.

Study	Intervention	Suicidal Ideation	Depressive Symptoms	Hopelessness	Family Empowerment	Hospitalisation	Feasibility
Asarnow (2011)	FI	Y	Y	NR	NR	NR	Y
Diamond (2010)	FI	Y	Y	NR	NR	NR	NR
Grupp-Phelan (2019)	MI	Y	Y	NR	NR	NR	Y
Hughes (2013)	FI	NR	NR	NR	NR	NR	Y
King (2015)	MI	Y	Y	Y	NR	NR	NR
Wharff (2017)	FI	Y	NR	NR	Y	Y	NR

**KEY:** (Y) = Yes, (NR) = Not reported.

## DISCUSSION

- This rapid review aimed to investigate interventions used in the PED setting for children and adolescents presenting with suicidal ideation.
- Six studies met the review inclusion criteria. All studies were initiated in the PED and provided evidence for the impact of these interventions on suicidal ideation<sup>7-12</sup>.
- Studies also outlined positive effects of interventions on patient engagement with outpatient follow-up treatment, depressive symptoms, hopelessness, family empowerment, hospitalisation and intervention feasibility<sup>7-12</sup>.
- Two potential interventions were identified in this review; four studies involved FI and two studies comprised of MI interventions<sup>7-12</sup>.
- Findings suggest FI are associated with a reduction in suicidal ideation, whereas evidence for the benefit of motivational interviewing is more equivocal.
- Overall, there is a lack of high-quality evidence due to several limitations within the included studies, therefore the conclusions should be drawn with caution.

## CONCLUSIONS

- Despite the significant recent rises in suicide rates in young people generally and throughout the COVID-19 pandemic, there is limited high-quality evidence to illustrate the effectiveness of interventions.
- This review highlights the apparent benefits of psychological interventions delivered within the PED setting for children and young people presenting with suicidality, including improving mental health, positive impacts on depressive symptoms, hopelessness, family empowerment and hospitalisation.
- Therefore, it is imperative to conduct more high-quality research to clarify definitive intervention outcomes. Studies must be undertaken within the UK specifically to establish successful ED-based interventions that can work effectively within this context.

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