What are the barriers and enablers to trauma-informed emergency departments? A scoping review protocol

BMJ Open

What are the barriers and enablers to trauma-informed emergency departments? A scoping review protocol

Gearoid Brennan ,[1,2] Anna Miell,[3] Jane Grassie,[4] Karen Goodall,[5] Sara Robinson[6]

To cite: Brennan G, Miell A, Grassie J, *et al*. What are the barriers and enablers to trauma-informed emergency departments? A scoping review protocol. *BMJ Open* 2024;**14**:e076370. doi:10.1136/bmjopen-2023-076370

► Prepublication history for this paper is available online. To view these files, please visit the journal online (http://dx.doi.org/10.1136/bmjopen-2023-076370).

Received 05 June 2023
Accepted 10 October 2023

[1]Faculty of Health Sciences & Sport, University of Stirling, Stirling, UK
[2]Department of Psychological Medicine, NHS Lothian, Edinburgh, UK
[3]EMERGE Research Group, NHS Lothian, Edinburgh, UK
[4]Emergency Department, Royal Infirmary of Edinburgh, NHS Lothian, Edinburgh, UK
[5]School of Health in Social Science, The University of Edinburgh, Edinburgh, UK
[6]Medical Education Directorate, NHS Lothian, Edinburgh, UK

Correspondence to
Dr Gearoid Brennan;
gearoid.brennan@stir.ac.uk

ABSTRACT

Introduction There is a high prevalence of psychological trauma among the population. Such people are more likely to have poorer health outcomes and these factors may contribute to increased use of the emergency department. There has been some attempt to implement a trauma-informed approach across public services, especially in health and social care. However, it is unclear how this concept applies to the challenging and high-demand emergency department context. The review aims to locate, examine and describe the literature on trauma-informed care in the unique and challenging healthcare delivery context that is the emergency department. The review aims to identify the barriers and enablers that may facilitate trauma-informed care in the emergency department context.

Methods and analysis This scoping review will use the Joanna Briggs Institute methodology for scoping reviews. Systematic searches of relevant databases (CINAHL, MEDLINE, PsycINFO, EMBASE, Knowledge Network and Web of Science) will be conducted. Empirical studies of any methodological approach, published in English between January 2001 and September 2023 will be included. The 'grey' literature will also be accessed. Two reviewers will independently screen all studies. Data will be extracted, collated and charted to summarise all the relevant methods, outcomes and key findings in the articles.

Ethics and dissemination Formal ethical approval is not required. The findings of this study will be disseminated through peer-reviewed publications, conference presentations and condensed summaries for key stakeholders in the field. The data generated will be used to inform a programme of work related to trauma-informed care.

STRENGTHS AND LIMITATIONS OF THIS STUDY

⇒ This scoping review protocol is the first to focus on trauma-informed care in an emergency department context.
⇒ We use an established method—The Joanna Briggs Institute methodology—for scoping reviews to ensure a systematic approach to searching, screening and reporting.
⇒ A multidisciplinary team comprised mental health nursing, emergency nursing, medicine and clinical psychology, which comprises both clinicians and academics will lead this scoping review.
⇒ The study has been registered with the Open Science Framework to enhance transparency.
⇒ There may be a lack of studies available to consider for full inclusion.

INTRODUCTION

Trauma is a pressing public health issue due to its high prevalence rates.[1 2] Work undertaken by the WHO suggests that 70% of World Mental Health Survey participants report experiencing some form of trauma, including intimate and gender-based violence, physical violence or war-related trauma.[3] Survivors of psychological trauma access healthcare for physical and psychological consequences of trauma.[4 5]

In the UK, there has been an attempt to embed trauma-informed care (TIC) principles across public services, including health and social care.[2 5 6] However, the implementation of TIC has been inconsistent across different regions, with Scotland and Wales showing more commitment than England.[5] It is considered a cornerstone policy of the Scottish Government. The most recent Mental Health Strategy (2017–2027) mandates that trauma is 'everyone's business' and, therefore, all public services are required to be at various levels of knowledge and skills when supporting people who have experienced trauma[7 8] However, there is little reference to how this may apply to the unique context of emergency departments (EDs).

Why emergency medicine?

Emergency medicine, which operates primarily in EDs, is often fast-paced, high-acuity and high-volume, which can make it overwhelming and challenging. The nature of admissions to the ED means that achieving holistic care might not always be possible. EDs receive significant political and public

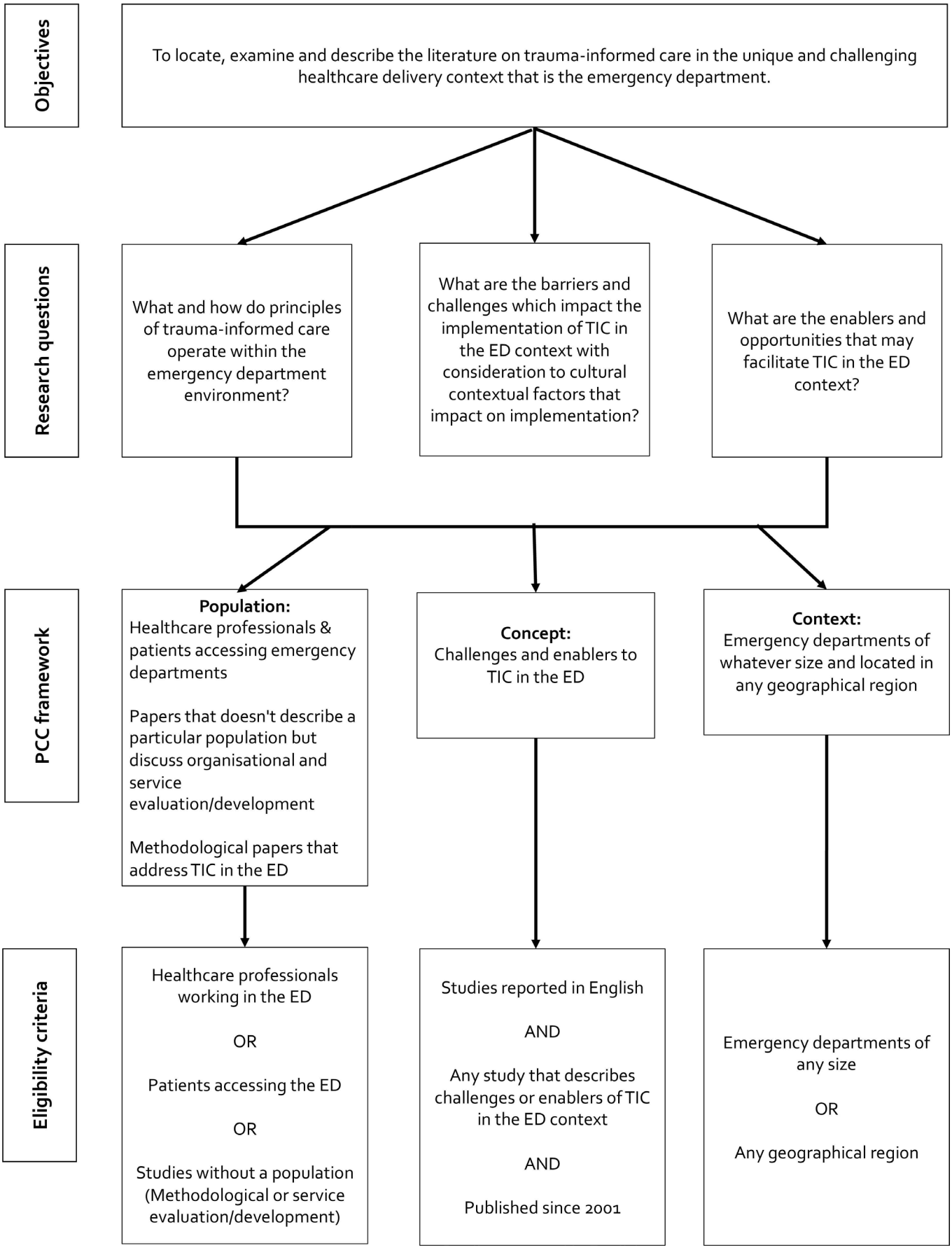

Figure 1 PCC framework detailing the relationship between research objectives, questions and eligibility criteria. PCC, Population/Participants, Concept, Context.

Table 1 Search strategy

Database:	CINHAL	
Platform:	EBSCOHost	
Search conducted:	November 2022	
Search	Query	Records retrieved
#1	Emergency room OR emergency care OR emergency department* OR ER OR ED OR "accident and emergency" OR "A&E" OR emergency medicine OR emergency nurs*	
#2	(Trauma informed OR trauma-informed OR trauma focused OR trauma-focused OR trauma friendly) AND	
#3	Search 1 AND 2	
#4		

Limited to: years 2001–2023, English language.
Where * is a wildcard to search for terms beginning with the given string.
All terms are keywords, searched in the field 'AB Abstract'
(Support OR challenge* OR barrier* OR oppurtunit* OR develop*)

attention, notably around the 4-hour standard to assess, treat and discharge patients.

Some of the mechanisms of how EDs function may be entirely incongruent with the realisation and actualisation of trauma-informed approaches. Several studies have endeavoured to capture the experience of those who present to EDs with complex emotional needs and trauma histories. Findings show that EDs may be unsuitable environments and that both emergency care and mental health professionals lack expertise in supporting such people.[9–11] However, there is a lack of research that explores alternatives.[9]

What is TIC?

Trauma refers to harmful events with lasting negative effects on an individual's well-being, commonly defined as events perceived as physically or emotionally harmful or life-threatening. The most commonly adopted definition of a traumatic event is taken from the Substance Abuse and Mental Health Services Association (SAMHSA),[12] which defines trauma as 'an event, a series of events or a set of circumstances that is experienced by an individual as physically or emotionally harmful or life-threatening'. Traumatic experiences are often hidden, with adverse childhood experiences (ACEs) encompassing childhood traumas such as abuse, family dysfunction, parental mental health issues, substance abuse or domestic violence.[13] ACEs have a cumulative effect, increasing the risk of higher morbidity and mortality, emotional dysregulation, and increased healthcare utilisation.[14 15] In the UK, there is significant inequality in populations with multiple ACEs, with nearly half of English adults having experienced at least one ACE.[16] Those with four ACEs are more likely to engage in high-risk behaviours and experience violence, which may contribute to increased use of ED services[14] While the physical management of these patients is well detailed, violently injured patients disproportionately carry a history of physical and psychological trauma that frequently affects clinical care in the ED.[15 17 18]

TIC is grounded in the need for a holistic understanding of how exposure to trauma affects someone's neurological, biological, psychological and social development.[12 19] TIC starts from the assumption that every person—patient and staff—could have a trauma history. SAMHSA[12] conceptualised key assumptions of trauma-informed approaches as the 'Four Rs'; a realisation about how trauma can affect individuals, organisations and communities; recognising the signs of trauma in service users and providers; responding in trauma-informed ways, and resisting retraumatisation. By applying a TI approach to care, services aim to ease the negative impact of trauma on both patients and staff by avoiding retraumatising people when they access healthcare.[20 21] By recognising and preventing such impact, it is hoped outcomes for patients and healthcare professionals can be improved.[2 20] Implementing TIC requires a cultural shift within healthcare organisations beyond the individual practitioner.[21]

Much of the focus on TIC has been its application to mental health services.[20 22 23] However, health policy is clear that trauma is everyone's business,[2] with ED practitioners required to be not just 'informed' but practising at a 'skilled' level according to the Scottish Trauma knowledge and skills framework.[6] However, what is unknown is the impact of such educational frameworks and training on ED practitioners and what and how the concept applies to the unique context of the ED. This is an important consideration as evidence suggests that EDs have a unique identity and 'sub-culture' within hospitals that often produce practices specific to the ED.[24 25] McConnell *et al*[25] found that the ED environment impacted significantly in how staff engaged in person-centred

- Author
- Year published
- Title
- Journal
- DOI
- Region/Country
- Aims/purpose
- Population
- Concept (Barriers/Challenges, Enablers/Opportunities)
- Context
- Methodology
- Outcomes
- Key findings

Figure 2 Data extraction tool. ED, emergency department; TIC, trauma-informed care.

processes. In particular, these processes are often outwit ED staff control.

Interface between mental healthcare and ED

The interface between mental health and ED is complex. Individuals with mental health problems often experience trauma,[15 20] making their visits to the ED challenging, as the setting can potentially trigger traumatic memories. Approximately 5% of ED visits are primarily due to mental health issues,[26 27] with an additional 5% having both mental health diagnoses and physical ailments.[26] Data show that mental health attendances to the ED have increased 133% over 8 years[27] In 2020, multiple Royal Colleges jointly issued a position paper advocating for increased involvement of mental health professionals in ED along with concurrent assessment.[28] The National Institute for Health and Care Research (NIHR)/James Lind Alliance have identified that the number one emergency medicine research priority is how we best care for those presenting with mental health issues.[29]

However, the recent Royal College of Emergency Medicine guidelines on Mental Health do not address TIC.[27] While a trauma-informed approach is acknowledged in mental health services, it may be unfamiliar to emergency care staff, who are more accustomed to handling major trauma cases resulting from violent and non-violent incidents.

A preliminary search was undertaken in the Joanna Briggs Institute (JBI) Database of Systematic Reviews and Implementation Reports, CINAHL, Cochrane Library, PubMed, MEDLINE, PROSPERO and Scopus to establish whether there were any systematic or scoping reviews published or underway on the topic. None were found. There appears to be a lack of empirical studies or reviews focusing specifically on TIC in the ED context. One niche study focused specifically on TIC principles for forensic patients attending the ED.[17] A survey of Australian paediatric ED staff found that 90% had no training on TIC although 94% wished to. Additionally, it found that experience alone was not sufficient for the development of knowledge.[30] This contrasts with another body of evidence that has shown that ED staff caring for patients with mental health issues, particularly self-harm, often hold negative views including clinical futility.[31 32] Conversely, some commentaries opine that implementing TIC principles in the ED may address some of these issues by providing staff with a clear framework and may have a positive impact on the overall care experience.[18]

Therefore, it is unclear how TIC principles apply to the ED as well as what the potential limits may be in the environmental context of the ED.

Objectives

The objective of this scoping review is, therefore, to locate, examine and describe the literature on TIC in the unique and challenging healthcare delivery context that is the ED. The data generated will be used to inform a programme of work related to TIC in the ED context.

The review aims to answer the following questions:

- What and how do principles of TIC operate within the ED environment?
- What are the barriers and challenges which impact the implementation of TIC in the ED context with consideration to cultural contextual factors that impact on implementation?
- What are the enablers and opportunities that may facilitate TIC in the ED context?

METHODS AND ANALYSIS

The proposed scoping review will be conducted in accordance with the JBI methodology for scoping reviews.[33] A scoping review approach is deemed appropriate as it allows for an overview of the evidence within the field

to be explored and described. This is useful for under-researched topics such as TIC in the ED context. This also allows for the methodological approaches to be described which is helpful in developing further research. With that, a scoping review allows for a heterogeneity of research approaches, as initial searches show there are not enough studies to allow for a systematic review.

The review will be guided by the Population/Participants, Concept, Context (PCC) framework endorsed by JBI. This is illustrated in figure 1 and how it is linked to objectives, research questions and eligibility criteria.

Population/participants

The review will consider studies that address either healthcare professionals working within the ED context or patients accessing ED care. Patients can be of any age. This will include participants from any empirical study type (qualitative, mixed methods, etc). The review will also include papers that detail service development or evaluation as well as methodological papers that detail TIC care in the ED context. These are useful in detailing the research landscape surrounding a topic.

Papers that detail TIC in other staff or patient groups outwith the ED will be excluded for example, prehospital care staff, community-based practitioners. Opinion papers will also be excluded.

Concept

The concept of interest is the distinctive challenges and opportunities to implement and embed TIC in the challenging ED context. For the purposes of this review, a 'challenge' is defined as anything identified by participants' that made TIC more difficult to implement and embed and which impacts on the ability of participants to practice TIC principles. An 'opportunity' is anything identified by participants that makes using TIC principles easier, or which enables participants to implement and embed them in their practice.

Context

The context for the review is all EDs in the UK and internationally. This can include departments of any size or scale. As preliminary searches showed few studies, this scoping review will consider a broad geographical context. The review will consider studies published in English since 2001, as this is the year Harris and Fallot[21] published their landmark text advocating that healthcare services adopt a trauma informed approach.

Papers where the setting is not the ED will be excluded. This includes the exclusion of prehospital care and other acute care settings.

Search strategy

The search strategy will aim to locate published and unpublished studies. An initial exploratory search identified that TIC in the ED context has not been extensively researched. Therefore, the search strategy will be kept deliberately broad to capture studies where TIC in the ED is the focus.

A three-stage approach to identifying relevant literature will be used. The first stage has been completed already and involved an initial limited search, focusing on CINAHL, MEDLINE and PsycINFO to test keywords and identify additional keywords from titles and abstracts. The second stage will be informed by this first stage, where the strategy will be refined and tailored for each database. The databases to be searched are CINAHL, MEDLINE, PsycINFO, EMBASE, Knowledge Network and Web of Science. The search for unpublished literature will include OpenGrey and the NHS websites of the four UK countries. A full search strategy for CINAHL and MEDLINE are shown in table 1.

The search will be limited to studies published in English and published since 2001 onwards. All included articles will have their reference lists reviewed to identify any additional sources not already found during the second stage.

Study/source of evidence selection

Following the search, all identified citations will be collated and imported into Microsoft Excel, as described by Godino.[34] This is an efficient, cost-effective and transparent method that is deemed a valid alternative to other more advanced tools and software.[34] It also has the advantage to allow for easy cross-institutional working. It also allows for the easy identification of duplicates.

Titles and abstracts will then be screened by two or more reviewers independently for assessment against the PCC criteria for the review.

As per JBI guidelines,[33 35] each review member will review a sample of 25 titles/abstracts and will then meet to discuss any discrepancies and potential modifications. This will act as a pilot. It is recommended that when agreement among team members reaches 75% or greater, selection of articles can continue.[35] When this is achieved, the screening process will continue.

Reasons for exclusion of full-text studies that do not meet the PCC criteria will be recorded and reported in the final scoping review report. Any disagreements that arise between the reviewers at any stage of the study selection process will be resolved through discussion between the two reviewers or with a third reviewer. The results of the search will be reported in the full report and presented in a Preferred Reporting Items for Systematic Reviews and Meta-analyses extension for Scoping Review flow diagram.[33]

The papers that are selected based on title and abstract will be downloaded and read in full.

Data extraction

Data will be extracted from included papers by two independent reviewers using a data extraction tool developed by the reviewers (see figure 2). The data extracted will include specific details about the population, context, study methods and key findings relevant to the scoping review objective and questions, specifically the challenges

and opportunities of implementing and embedding TIC in the ED context.

The data extraction tool will be piloted prior to full extraction. This will consist of two reviewers independently extracting a small section of papers (approximately 25% of total). This will allow for consistency and any amendments to the tool to be made.

It is acknowledged that the extraction phase is an Iterative process.[35] The data extraction tool will be modified and revised as necessary during the extraction of the included studies. If any amendments are made to the tool, previously reviewed texts will be reassessed. Modifications will be detailed in the full scoping review report. Any disagreements that arise between the two reviewers will be resolved through discussion or with a third reviewer, as needed. Authors of the research articles and other sources of literature may be contacted to request additional or missing data where needed.

Data analysis and presentation

The data extracted from the relevant published and unpublished literature will be presented in a tabular and/or charted form that is aligned with the objective of the scoping review. Data that are presented in tables will reflect the information collected using the data extraction tool. A narrative summary will accompany the tabulated and/or charted results and will describe how the results relate to the review objective and review questions.

Patient and public involvement

This work analyses existing research studies, and therefore, involves no patients or members of the public.

ETHICS AND DISSEMINATION

Formal ethical approval is not required, as primary data will not be collected in this study. The findings of this study will be disseminated through peer-reviewed publications, conference presentations and condensed summaries for key stakeholders and partners in the field.

Twitter Gearoid Brennan @gearoidbrennan

Contributors GB conceived the idea for the review. GB designed and drafted the scoping protocol. AM, JG, KG and SR critically reviewed the draft and contributed to subsequent revisions. All authors approved the protocol prior to its submission.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient and public involvement Patients and/or the public were not involved in the design, or conduct, or reporting, or dissemination plans of this research.

Patient consent for publication Not applicable.

Provenance and peer review Not commissioned; externally peer reviewed.

ORCID iD

Gearoid Brennan http://orcid.org/0000-0002-5769-5099

REFERENCES

1 Magruder KM, McLaughlin KA, Elmore Borbon DL. Trauma is a public health issue. *Eur J Psychotraumatol* 2017;8:1375338.
2 Scottish Government. *Trauma-informed practice: A toolkit for Scotland*. Edinburgh, 2021.
3 Kessler RC, Aguilar-Gaxiola S, Alonso J, *et al*. Trauma and PTSD in the WHO world mental health surveys. *Eur J Psychotraumatol* 2017;8:1353383.
4 Sacchi L, Merzhvynska M, Augsburger M. Effects of cumulative trauma load on long-term trajectories of life satisfaction and health in a population-based study. *BMC Public Health* 2020;20:1612.
5 Emsley E, Smith J, Martin D, *et al*. Trauma-informed care in the UK: where are we? A qualitative study of health policies and professional perspectives. *BMC Health Serv Res* 2022;22:1164.
6 NHS Education for Scotland. *Transforming Psychological Trauma: A Knowledge and Skills Framework for the Scottish Workforce*. Edinburgh: NES, 2017.
7 NHS Education for Scotland. *Transforming Psychological Trauma*. Scottish Government, 2017.
8 Scottish Government. Mental health strategy 2017-2027. Edinburgh Scottish Government; 2017.
9 DeLeo K, Maconick L, McCabe R, *et al*. Experiences of crisis care among service users with complex emotional needs or a diagnosis of 'personality disorder', and other stakeholders: systematic review and meta-synthesis of the qualitative literature. *BJPsych Open* 2022;8:e53.
10 Digel Vandyk A, Young L, MacPhee C, *et al*. Exploring the experiences of persons who frequently visit the emergency department for mental health-related reasons. *Qual Health Res* 2018;28:587–99.
11 Quinlivan LM, Gorman L, Littlewood DL, *et al*. 'Relieved to be seen'-patient and carer experiences of psychosocial assessment in the emergency department following self-harm: qualitative analysis of 102 free-text survey responses. *BMJ Open* 2021;11:e044434.
12 Substance Abuse and Mental Health Services Administration. *Trauma-Informed Care in Behavioral Health Services*. 2014.
13 Dong M, Anda RF, Felitti VJ, *et al*. The Interrelatedness of multiple forms of childhood abuse, neglect, and household dysfunction. *Child Abuse Negl* 2004;28:771–84.
14 Public Health Wales. *Welsh Adverse Childhood Experiences (ACE) Study*. 2015.
15 Purkey E, Davison C, MacKenzie M, *et al*. Experience of emergency department use among persons with a history of adverse childhood experiences. *BMC Health Serv Res* 2020;20:455.
16 Bellis MA, Hughes K, Leckenby N, *et al*. National household survey of adverse childhood experiences and their relationship with resilience to health-harming behaviors in England. *BMC Med* 2014;12:72.
17 Cochran CB. Infusing the principles of trauma-informed care into emergency nursing: a comprehensive approach to change practice. *J Forensic Nurs* 2019;15:206–13.
18 Fischer KR, Bakes KM, Corbin TJ, *et al*. Trauma-informed care for violently injured patients in the emergency department. *Ann Emerg Med* 2019;73:193–202.
19 NHS Education for Scotland. *The Scottish Psychological Trauma Training Plan*. Edinburgh: NES, 2019.
20 Sweeney A, Clement S, Filson B, *et al*. Trauma-informed mental healthcare in the UK: what is it and how can we further its development *MHRJ* 2016;21:174–92.
21 Harris M, Fallot R. *Using trauma theory to design service systems*. San Francisco: Jossey-Bass/Wiley, 2001. Available: WorldCat.org
22 Muskett C. Trauma-informed care in inpatient mental health settings: a review of the literature. *Int J Ment Health Nurs* 2014;23:51–9.
23 Gerace A, Muir-Cochrane E. Perceptions of nurses working with psychiatric consumers regarding the elimination of seclusion and restraint in psychiatric inpatient settings and emergency departments: an Australian survey. *Int J Ment Health Nurs* 2019;28:209–25.
24 Person J, Spiva L, Hart P. The culture of an emergency department: an ethnographic study. *Int Emerg Nurs* 2013;21:222–7.
25 McConnell D, McCance T, Melby V. Exploring person-centredness in emergency departments: a literature review. *Int Emerg Nurs* 2016;26:38–46.

26 Cann J, Barter R, Battle J, *et al*. Patients presenting to an acute general hospital with acute mental health needs: a retrospective observational cohort study. *BMJ Open* 2022;12:e059102.
27 Royal College of Emergency Medicine. *The Royal College of Emergency Medicine Mental Health Toolkit*. London: RCEM, 2022.
28 Brown S, Eales S, Hayhurst C, *et al*. *Side by side: A UK-wide consensus statement on working together to help patients with mental health needs in acute hospitals*. London, 2020.
29 NIHR, James Lind Alliance. Emergency medicine refresh top 10 (priority setting in association with the JLA). James LIND alliance; 2022. Available: https://www.jla.nihr.ac.uk/priority-setting-partnerships/emergency-medicine-refresh/top-10-priorities.htm [Accessed 27 Nov 2022].
30 Hoysted C, Babl FE, Kassam-Adams N, *et al*. Perspectives of hospital emergency department staff on trauma-informed care for injured children: an Australian and New Zealand analysis. *J Paediatr Child Health* 2017;53:862–9.
31 Owens C, Hansford L, Sharkey S, *et al*. Needs and fears of young people presenting at accident and emergency department following an act of self-harm: secondary analysis of qualitative data. *Br J Psychiatry* 2016;208:286–91.
32 Vandyk A, Bentz A, Bissonette S, *et al*. Why go to the emergency department? Perspectives from persons with borderline personality disorder. *Int J Ment Health Nurs* 2019;28:757–65.
33 Peters M, Godfrey C, McInerney P, *et al*. Chapter 11: scoping reviews. In: *JBI Manual for Evidence Synthesis*. JBI, 2020.
34 Godino L. How to structure microsoft excel documents for systematic reviews. *Nurse Res* 2023;31:40–6.
35 Pollock D, Davies EL, Peters MDJ, *et al*. Undertaking a scoping review: a practical guide for nursing and midwifery students, clinicians, researchers, and academics. *J Adv Nurs* 2021;77:2102–13.