

Pediatric Disaster Medicine Literature: A Scoping Review

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Introduction: Over the last 20 years disasters have increasingly involved children, and pediatric disaster medicine research is growing. However, this research is largely reactive, has not been categorized in terms of the disaster cycle, and the quality of the research is variable. To understand the gaps in current literature and highlight areas for future research, we conducted a scoping review of pediatric disaster medicine literature. This work will help create recommendations for future pediatric disaster medicine research.

Method: Using a published framework for scoping reviews, we worked with a medical librarian and a multi-institutional team to define the research question, develop eligibility criteria, and to identify a search strategy. We conducted a comprehensive Medline search from 2001-2022, which was distributed to nine reviewers. Each article was independently screened for inclusion by two reviewers. Discrepancies were resolved by a third reviewer.

Inclusion criteria included articles published in English, related to all stages of the disaster cycle, and disaster education, focused on or included pediatric populations; published in academic, peer-reviewed journals, and policies from professional societies.

Results: 967 pediatric disaster medicine articles were imported for screening and 35 duplicates were removed. 932 articles were screened for relevance and 109 were excluded. In 2000, three articles met inclusion criteria and 66 in 2021. We noticed reactive spikes in the number of articles after major disasters. Most articles focused on preparedness and response, with only a few articles on recovery, mitigation, and prevention. Methodology used for most studies was either qualitative or retrospective. Most were single site studies and there were < 10 meta-analyses over the 20 years.

Conclusion: This scoping review describes the trends in and quality of existing pediatric disaster medicine literature. By identifying the gaps in this body of literature, we can better prioritize future research.

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Mass Gathering Events - Health Care Facility Notification Template

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Introduction: Every year many concerts, festivals, public meetings and major events take place in Ireland. Depending on the nature of the event such as: location, the number of attendees, and performers—these events present varying amounts of risk. The Health Service Executive is concerned with managing risks and advocates that event organizers put comprehensive event management plans in place. Healthcare arrangements for outdoor crowd events should be specified in the Event Medical Plan section of the event management plan by the event organizer. As part of the event notification process, event organizers engage with the HSE South Emergency Management Office which in turn liaises with the various care groups across the Cork Kerry region to inform them of events that may impact their service. Historically, event organizers have informed the Emergency Management office of events in a wide variety of formats and varying levels of information.

Method: The HSE South Emergency Management Office engaged with Cork University Hospital (Major Trauma Center) to identify the information hospitals require from various events around the region. In addition, the Emergency Management Office liaised with a subject matter expert in Mass Gatherings from Australia to discuss key indicators/data points healthcare facilities could benefit from knowing in advance of mass gathering events.

Results: A standardized Word document template was developed as a proof of concept that lists key data that healthcare facilities have identified as important for them to be made aware of as part of the notification process. This template now lends itself to be developed into an online editable form to enable event organizers to inform the relevant healthcare facilities of mass gathering events.

Conclusion: Health care facilities require timely and accurate information regarding mass gathering events to ensure appropriate plans and preparations are in place. A standardized notification template would assist in the preparation phase.

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Massive Influx of Victims: Staff Preparedness and Facility Readiness of Tunisian General University Hospitals.

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Introduction: Hospital preparedness for a massive influx of victims relies, to a certain extent, on actions, programs, and systems that are created and executed ahead of time, but also on the knowledge, skills, and professional competences of the hospital's staff. This study aims to understand the factors influencing the preparedness of Tunisian University Hospital staff in facing a massive influx of victims.

Method: This is a multi-method qualitative descriptive study, conducted in nine general University Hospitals (UH) in Tunisia; the first component was a phenomenological design via open-ended interviews; the second component was a qualitative observational non-participatory design via field observations.

Results: 17 participants were recruited, in an intentional non-probabilistic way. Participants to this study discussed issues related to the material and financial resources of their hospitals; the psychological impact of managing an influx of victims; their training, their involvement in the process, and the norm versus the circumstances in the field. Which led to the conclusion that: "For multiple reasons, the Tunisian University Hospitals are not ready to properly manage a massive influx of victims"

Conclusion: This multi-method qualitative study discussed the factors that affected the preparedness of staff and readiness of UHs included. Factors were mainly resources (material and financial), psychological burden, lack of training, lack of involvement in the process and issues related to evidence-based practice. Data collected supports the idea that more research and more practical interventions need to be performed to increase the preparedness level of Tunisian UHs and their staff.

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Trauma-related Mental Health in the Context of the COVID-19 Pandemic: Findings from a 'Living' Systematic Literature Review

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Introduction: This contribution is based on the findings from a 'living' systematic literature review seeking to understand the short and long term health impact of the COVID-19-pandemic. Emphasis is placed on the prevalence and risk factors of trauma-related mental health outcomes in the context of the pandemic. Especially when it comes to Post Traumatic Stress Disorder (PTSD), it is questionable whether exposure types that are typical to the pandemic match the essence of the disorder. Our objective is to verify whether the international literature sufficiently distinguishes pandemic related exposure from other risk factors such as social demographic characteristics and non-pandemic related exposure to threats and life events.

Method: This part of the 'living' systematic literature review is conducted under the umbrella of the Dutch Integrated Health Monitor COVID-19. In order to guide a research-driven data collection, several databases were searched for studies published during the pandemic. At the moment of abstract submission the protocol was published in Prospero and screening was in progress. Observational, quantitative studies including a specified exposure/event and a trauma-related mental health outcome measure are included. The included studies will be categorized based on type of exposure/event. Pooled prevalence will be calculated if studies are sufficiently homogeneous.

Results: In progress.

Conclusion: The results from this literature review are likely going to confirm that a substantial part of the international literature is polluted with studies promising to contain information on PTSD and other trauma-related health effects of the COVID-19 pandemic, yet running short of linking symptomatology to particular types of exposure and risk factors. If this is the case, a risk exists that public health authorities are being recommended to apply preventive and curative trauma-focused interventions based on an ambiguous knowledge base. The results will be presented during the conference.

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Methods for Hospital To Promote Disaster Preparedness Against Loss of Power

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Introduction: The 2018 Hokkaido earthquake caused a power outage in all of Hokkaido. In Japan, several hospitals have generators for outages. However, when electricity is lost, several hospitals are disrupted because they are accustomed to having a stable power supply on a daily basis. This study describes the efforts of a hospital that were not accustomed to disaster response to evaluate and implement power-loss countermeasures. The purpose of this study is to measure the usefulness of hospital power-loss countermeasures.

Method: 1) Classification of Japan's existing power-loss countermeasures.

2) Hospital evaluation of the classified power-loss measures.

3) Confirmation of the usefulness of the hospital's power-loss countermeasures.

Results: Power-loss countermeasures were classified into four categories. 1.) Equipment enhancement: this measure is expensive but can prevent loss of power, 2.) Purchase of goods: this measure is inexpensive and alternative power is available, 3.) Manual creation, and 4.) Training. Training measures can help smoothen the hospital's response after a loss of power. A hospital evaluated whether those measures were appropriate for that hospital. As a result, some of the measures were immediately put into practice.

Conclusion: This hospital was not accustomed to disaster response, and at first, they did not seem to know where to apply countermeasures. However, after implementing the measures, the hospital announced within its organization that the next step was training. It became clear that by presenting specific