

Co-designing an intervention to prevent, mitigate & treat medical traumatic stress in children with medical complexity & their families: A patient, family and stakeholder - partnered approach

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BACKGROUND & OBJECTIVE: Medical trauma (MT) is a physical and psychological response to illness, injury, pain and invasive or frightening treatments. Children and their families might experience post-traumatic stress symptoms as a result of MT, such as heightened anxiety and flashbacks. At highest risk of repeated MT are children with medical complexity (CMC) who have chronic disease and high health care utilization. Trauma-informed care (TIC) is intended to assess and respond to symptoms of trauma in patients and families. Although TIC is widely espoused by healthcare organizations, this approach has not been tailored to MT. The Patient and Family Advisory Council (PFAC) of the Maternal Newborn Child & Youth Strategic Clinical Network™ convened a working group to address this crucial gap.

METHODS: Generative Co-design

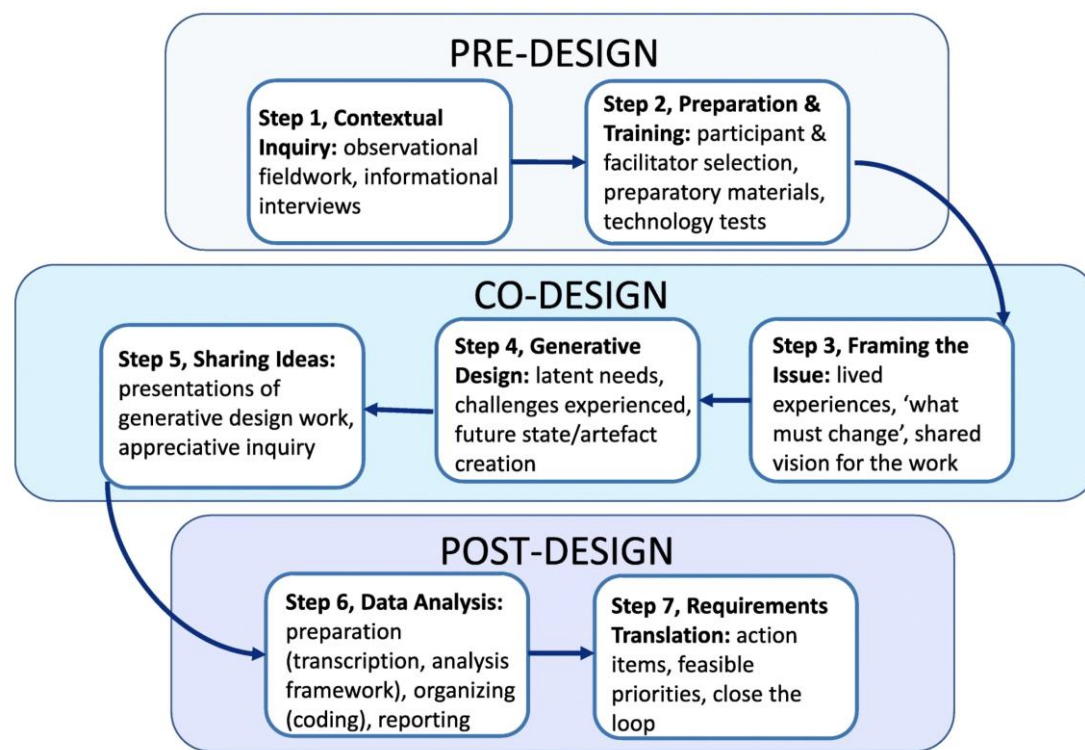


Fig 1: A generative co-design framework for healthcare innovation

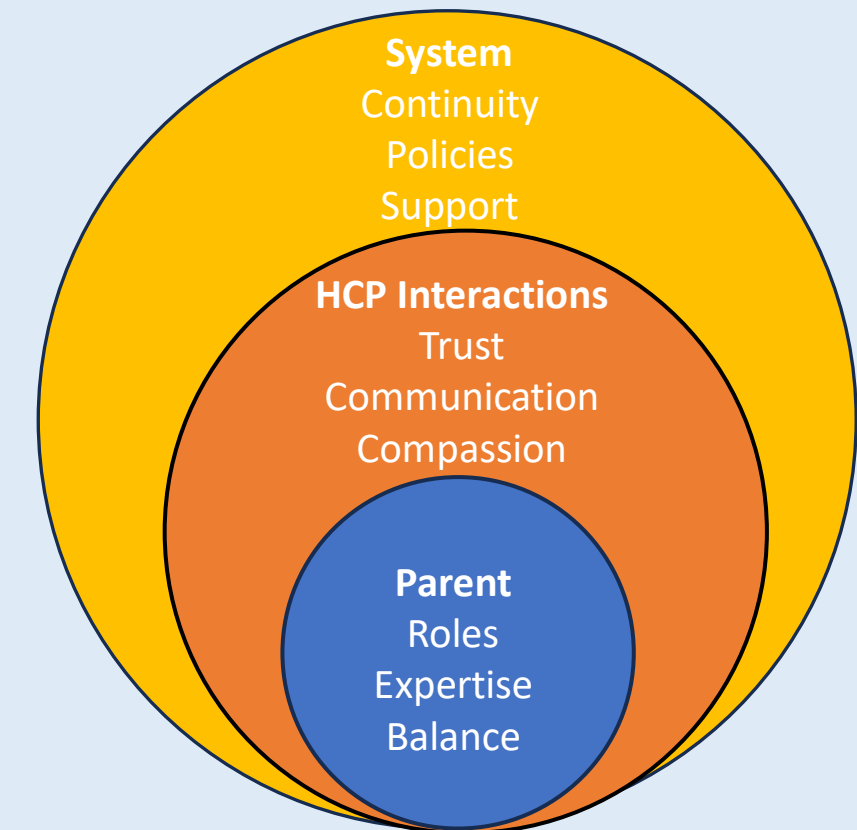


Fig 2: Parent-identified contributors to medical trauma²

RESULTS

This study will produce the following outputs:

- (1) A comprehensive description of potentially modifiable factors that influence medical trauma, essential components of TIC interventions, and a set of TIC intervention ideas.
- (2) A single prototype TIC intervention that will proceed to further refinement & pilot testing.
- (3) A list of stakeholder-driven recommendations.

EDI AND (SGBA+) CONSIDERATIONS: Study to enroll members of equity-deserving but often under-represented populations such as 2SLGBTQ+, Indigenous and racialized individuals. We are also partnering with the AB SPOR Support Unit to support our recruitment efforts to optimize inclusion and representation.

CONCLUSIONS: This research will address the critical issue of MT from a multi-stakeholder perspective. This study will have the potential to impact other pediatric populations with chronic disease/disability who share the risk of MT. Further, raising awareness of medical trauma to healthcare providers, policy makers and the general public, will elevate the profile of this important and neglected issue.



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1. Bird, M., McGillion, M., Chambers, E.M. *et al.* A generative co-design framework for healthcare innovation: development and application of an end-user engagement framework. *Res Involv Engagem* 7, 12 (2021). <https://doi.org/10.1186/s40900-021-00252-7>
 2. Dewan T, Birnie K, Drury J, et al. Experiences of medical traumatic stress in parents of children with medical complexity. *Child Care Health Dev.* Published online March 1, 2022. doi:10.1111/cch.13042