

Digital interventions for distraction during painful procedures among children

Rationale

When children undergo painful medical procedures, many describe such procedures to be distressing. It is therefore recommended that both pharmacological and cognitive-behavioral interventions that could serve as a distraction, be developed and evaluated to minimize the distress caused by these painful procedures.

Implications

To provide recommendations regarding effective digital distractors for decreasing distress experienced by children undergoing painful medical procedures.

Background

- Distraction has been shown to be an effective strategy for decreasing pain and distress associated with procedural pain in children. With increasing technological advancements, we aim to assess the effect of digital interventions during painful procedures among children.

Objective

- To determine whether the use of digital technology (e.g. television, DVDs, laptops, tablets or iPads, Smart phones, video games) as a distraction decreases experienced distress for children (≤ 21 years) who are undergoing a painful medical procedure.
- To determine whether the effectiveness of the digital distraction differs by subgroup (i.e. by age, sex, clinical condition, type and setting of the procedure, severity of pain, active or passive distraction).

Methodology

- A rapid review will be conducted
- Our eligibility criteria are outlined using the PICOS framework, as follows:

Population: Children (≤ 21 years old) who are undergoing a painful medical procedure.

Intervention: Any digital technology used as a form of distraction.

Comparator: Any other form of distraction (may be digital or non-digital).

Outcomes: Distress, stress, anxiety, fear, worry, sadness, suffering (physical or mental), sorrow, and affliction. Any form of measurement of the outcomes is acceptable (e.g., self-report, proxy-report, observed). Outcomes could be reported by anyone.

Study designs: Randomized controlled trials (RCTs) are eligible for inclusion.

- The literature search will be executed in the following databases: MEDLINE, EMBASE, and The Cochrane Library.
- Title and abstract screening, full-text screening, and data abstraction will be conducted by 1 person.
- Data will be abstracted according to the types of participants, interventions, comparators, and outcomes identified.
- Quantitative data synthesis (e.g. meta-analysis) will be conducted, if appropriate.

Knowledge Translation Strategy

- Our results will be presented as a report, published and disseminated on a website.

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PROSPERO Registration: <https://osf.io/g9vk5/>

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