Contribution ID: **58** Type: **Talk**

Digital interventions for the reduction of vaccination-related pain and anxiety among children – Meta-analysis

Thursday, 12 September 2024 10:10 (20 minutes)

Background: Injection-related pain and anxiety have been major contributors to hesitancy and noncompliance with children's vaccinations. Traditional distraction, as a common method, often fails to prevent syringe anxiety. Novel strategies involving multiple senses in managing pain and anxiety related to children's vaccinations require evaluation. This study aimed to investigate the effect of digital technologies on pain and anxiety in children undergoing vaccination procedures.
Method: A comprehensive search was conducted across seven databases (Medline, Cochrane Library, PubMed, EBSCOhost, Web of Science, Scopus, and CHINAL). This study included a wide range of digital technologies applied in vaccination procedures to children (<21 years old), assessing at least one of two outcomes (pain and anxiety). Randomised controlled trials, quasi-experiments, cross-sectional, and other quantitative research published from 2009 – 2023 were included. Qualitative studies, reviews, and non-English papers were excluded.
Result: Of 1750 identified studies implementing digital interventions in children's vaccination, twenty-four assessed pain and seven assessed anxiety. This intervention covered virtual realities, robotics, health digital devices, mobile and computer technology, and video-based interventions. The digital interventions provided a reduction in pain (WMD = -0.74, 95 % CI: -1.08, -0.41) and anxiety (WMD = -0.97, 95% CI: -1.61, -0.33).
Conclusion: Digital interventions might reduce the pain and anxiety related to vaccination among children. This potential can lead to improved vaccination experiences and increased compliance among children, thereby enhancing the overall effectiveness of vaccination programs.

Are you currently an Early Career Researcher?

Yes, I am still a student or have not yet received my Ph.D.

Primary authors: TOLOLIU, Kevin Efrain (University of Pecs); CSOKASI, Krisztina; FERENC, Kocsor

Presenter: TOLOLIU, Kevin Efrain (University of Pecs)

Session Classification: Talk Session 5

Track Classification: Health Psychology