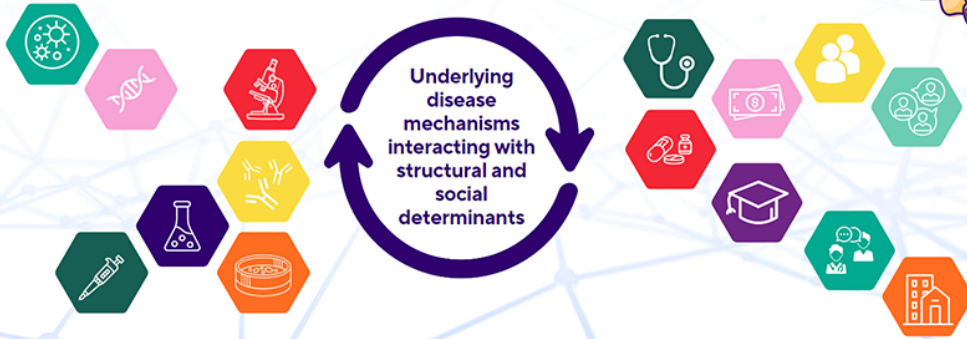




19TH ANNUAL CHILD HEALTH RESEARCH DAYS
Outcomes in Child Health



October 25 + 26, 2023 | RBC Convention Centre, Winnipeg, Manitoba

Abstract Submission Form

CHRD 2023: Abstract Submission Form

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Presenter Status

Post-Doctoral Fellows

Research Category

Community Health / Policy

Role in the project

Design
Perform Experiments
Analyze Data
Write Abstract
Design Perform Experiments Analyze Data Write Abstract Screening of studies, data extraction and quality assessment

Title

Improving Paediatric Readiness Scores of General Emergency Departments:
A Systematic Review

Background

Child mortality, with 7.7 million annual deaths worldwide, underscores the urgent need to enhance pediatric care in general emergency departments (EDs). In North America, children represent one-fifth of all ED visits, yet many EDs lack sufficient readiness for pediatric emergencies. The National Pediatric Readiness Project, utilizing Weighted Pediatric Readiness Scores (WPRS), aims to address this deficiency. However, the effectiveness of interventions like in-situ simulations in improving WPRS remains uncertain.

Objective

This systematic review aims to comprehensively summarize available evidence regarding the impact of interventional measures on general EDs' WPRS.

Methods

A comprehensive systematic review searched major databases and grey literature up to May 2022. We included controlled studies in English that were conducted in EDs serving children and utilized intervention measures aimed at improving WPRS. Screening of eligible studies and quality assessment were

performed independently by two reviewers, with discrepancies resolved by a third reviewer. Data extraction and quality assessment were performed using critical appraisal checklists.

Results

Out of 3,658 papers initially identified through Covidence, four met the study's eligibility criteria. One additional paper was found through a manual search. Five studies, four in the United States and one in Canada, employed before-and-after study designs. This review identified six interventions, including customized reports, online resources, simulations, expert consultations, and a pediatric toolkit, that improved WPRS in pediatric care. Performance reports were common across all studies and simulations featured in four. Reported improvement in WPRS ranged from 12.9% to 17.1% (Table. 1). Evidence certainty was rated as moderate across the studies.

Conclusion

Our review underscores the efficacy of strategies like customized performance reports and in situ-simulations to enhance pediatric care in general EDs. The quality of the evidence presented was moderate, emphasizing the need for rigorous randomized controlled trials that can provide valuable insights for future quality improvement initiatives.

Table/Figure File

Table 1.pdf

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Table 1. Primary Outcome: WPRS

Publication	Intervention vs. Comparator	Primary outcome	Primary outcome effect estimate	Primary outcome results (unadjusted)	Variables used to adjust Primary outcome	Primary outcome results (adjusted)	Conclusion
Whitfill et al., 2018	1.Performance report. 2. In-Situ Simulations. vs. No measure	WPRS	Mean Difference	12.9%	Not reported	Not reported	The implementation of an in-situ simulation-based quality improvement initiative and report outs lead to improvement in WPRS.
Abulebda et al., 2018	1.Performance report. 2.Access to 3. Online pediatric resources and content experts. 4.In-Situ Simulations vs. No measure	WPRS	Mean Difference	16.2%	Not reported	Not reported	The provision of in-situ simulations, report outs after initial simulation with access to online pediatric resources and content experts was associated with improvement in WPRS.
Abulebda et al., 2021	1. Performance report. 2.Ongoing interactions. 3.Pediatric resources toolkit. 3.In-Situ Simulation vs. No measure	WPRS	Mean Difference	16.3% 95% CI (12.7 - 19.8)	Protocol Adherence	17.10%	Implementing a intervention model including In- simulation; pediatric resources toolkits, ongoing interactions and performance reports a is associated with improvement in WPRS.
Abulebda et al., 2021	1.Performance report. 2.Resources and ongoing interactions vs. No measure	WPRS	Mean Difference	16.7%	Not reported	Not reported	Using customized performance reports, in-situ simulations, resources, ongoing interactions is associated with improvements in WPRS.
Abulebda et al., 2022	1. Performance report. 2. Ongoing interactions 3. Post-simulation debriefing. 4. Pediatric resources toolkit. vs. No measure	WPRS	Median	17%	Not reported	Not reported	The provision of post-simulation debriefing, customized performance report, ongoing interactions and pediatric resources toolkit is associated with improvement in WPRS.

Note: WPRS : Weighted Pediatric Readiness Score, CI: Confidence Interval