

## Review

## Handover and transport of critically ill children: An integrative review



Cynthia Foronda, PhD RN CNE ANEF, Assistant Professor<sup>a,\*</sup>,  
 Brigit VanGraafeiland, DNP CRNP, Assistant Professor<sup>b</sup>, Robert Quon, MHS<sup>c</sup>,  
 Patricia Davidson, PhD MEd RN FAAN, Dean and Professor<sup>d</sup>

<sup>a</sup> Johns Hopkins University School of Nursing, 525N. Wolfe St., Suite 414, Baltimore, MD 21205, USA

<sup>b</sup> Johns Hopkins University, School of Nursing, 525N. Wolfe St., Suite 415, Baltimore, MD 21205, USA

<sup>c</sup> Johns Hopkins, Bloomberg School of Public Health, 615N. Wolfe Street, Baltimore, MD 1205, USA

<sup>d</sup> Johns Hopkins University, School of Nursing, 525N. Wolfe St., Baltimore, MD 21205, USA

## ARTICLE INFO

## Article history:

Received 18 February 2016

Received in revised form 2 June 2016

Accepted 20 July 2016

## Keywords:

Communication

Critical care

Handoff

Handover

Interprofessional education

Nursing

Pediatrics

Teams

Transfer

Transport

## ABSTRACT

**Background:** The handover and transport of critically ill pediatric patients requires communication amongst multiple disciplines. Poor communication is a leading cause of sentinel events and human factors affect handover and transport.

**Objectives:** To synthesize published data on pediatric handover and transport and identify gaps to provide direction for future investigation.

**Methods:** Integrative literature review.

**Results:** Forty research studies were reviewed and revealed the following themes: risk for patient complications, standardized communication, and specialized teams and teamwork were associated with improved outcomes. No articles were identified regarding transportation of critically ill pediatric patients from the emergency room to the intensive care unit. There was a knowledge gap in best practices in handover and transport within the unique subsets of the pediatric population including neonate, toddler, school-aged, and adolescents.

**Conclusions:** Research supported a combined approach of specialized teams using standardized communication in the handover and transport of the pediatric patient to improve outcomes. Further study is warranted on interprofessional (team to team) handover practices, select subsets of the pediatric population, and the handover and transport of critically ill patients from the emergency room to the intensive care unit.

© 2016 Elsevier Ltd. All rights reserved.

## Contribution of the paper

What is already known?

- Communication failure and human factors are critical factors in causing adverse health outcomes
- Pediatric handover and transport are associated with an increased risk for patient complications
- Interprofessional education and practice are important to improve team structure and effectiveness of communication

What this study adds?

- The use of standardized communication through mnemonics and handoff tools as well as the use of specialized teams and teamwork was associated with improved outcomes.
- There is a knowledge gap in best practices in handover and transport within the unique subsets of the pediatric population including neonate, toddler, school-aged, and adolescents.
- Research on interprofessional handover and transport practices from the emergency department to intensive care unit is warranted to improve patient outcomes.

## 1. Background

The handover and transport of critically ill pediatric patients requires communication amongst multiple disciplines. Poor communication is associated with nearly 64% of sentinel events in the hospital (The Joint Commission, 2015). Human factors such as role ambiguity, differences in values, professional hierarchies,

\* Corresponding author.

E-mail addresses: [cforonda1@jhu.edu](mailto:cforonda1@jhu.edu), [c.foronda@miami.edu](mailto:c.foronda@miami.edu) (C. Foronda), [bvanga1@jhu.edu](mailto:bvangra1@jhu.edu) (B. VanGraafeiland), [quonrobertjh@gmail.com](mailto:quonrobertjh@gmail.com) (R. Quon), [pdavids3@jhu.edu](mailto:pdavids3@jhu.edu) (P. Davidson).

and lack of teamwork affect handover and transport (Heinrichs et al., 2012; Interprofessional Education Collaborative Expert Panel, 2011). The Institute of Medicine report in the United States (US), *To err is human: Building a safer health system*, brought to light the disconcerting realities and risks of the healthcare system (Kohn et al., 2000) and has had an influence internationally. The report indicated that as many as 98,000 people died each year in the US as a result of preventable medical errors. This report spearheaded a revolution in healthcare including systems overview, patient safety initiatives and improved interprofessional education (IPE) efforts. The importance of interprofessional education and practice is increasingly recognized as a model to improve the safety and quality of care (Reeves et al., 2008).

### 1.1. Interprofessional education and practice

“Interprofessional education occurs when two or more professions learn with, from and about each other to improve collaboration and the quality of care” (Centre for the Advancement of Interprofessional Education, 2002 para. 1). The Interprofessional Education Collaborative (IPEC) expert panel released a visionary report promoting core competencies for interprofessional collaborative practice and education (Interprofessional Education Collaborative Expert Panel, 2011). The four competencies included 1) Values/Ethics for Interprofessional Practice, 2) Roles/Responsibilities, 3) Interprofessional Communication, and 4) Teams and Teamwork. This report acknowledged the hazardous silo effect of the current educational system and advocated for change to aptly prepare healthcare providers to function cohesively in the practice setting. The hope of IPE is that once health care professionals begin to learn to work together in a collaborative manner, the quality of patient care will improve. Appreciating discrete roles, responsibility and the intersection of professional tasks is critical for team work and effectiveness.

An example of where synergistic and effective interprofessional interaction is of vital importance is the transport of critically ill

children. As a consequence, specialized teams to transfer critically ill children is a standard practice in most acute care institutions. The handover and transport of critically ill children is a complex, multi-faceted process requiring careful coordination to reduce patient harm. This integrative review was designed to synthesize what was known about pediatric handover and transport and identify gaps to provide direction for future investigation.

## 2. Methods

Whittemore and Knafl's (2005) integrative review method and principles of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) Statement (2009) were used to guide the process. This approach allowed for greater breadth in the search with the inclusion of diverse methodologies whilst addressing a research question using methods to identify, select, and critically appraise relevant research, and to summarize findings (Whittemore and Knafl, 2005). The database of PubMed was searched with a healthcare librarian using the following MeSH terms: “patient transfer”, “transportation of patients”, or “patient handoff” with text search of “handoff”, “handover”, “patient transport”, “patient transportation” or “transferring patients” combined with “child”, “infant”, “toddler”, “teen”, or “adolescent” and “intensive care”, “intensive care units”, “neonatal”, “emergency treatment”, “emergency service, hospital”, “emergency medicine”, “emergency nursing”, “ICU”, “PICU”, “NICU”, “emergency department”, “emergency departments”, “emergency unit”, “emergency units” or “emergency.” Results were further limited to articles offered in English only from January 2009 to November 2014 yielding 393 articles. Additionally, the database of CINAHL Plus was searched for research articles from 2009 to 2015 using the Boolean/Phrase: handoff OR transport AND pediatric, yielding 320 records. Abstracts were reviewed for relevance to pediatrics yielding 57 articles. Three researchers read the articles and used summary tables to extrapolate study highlights. Following review of the articles, a total of 40 research studies were included in the

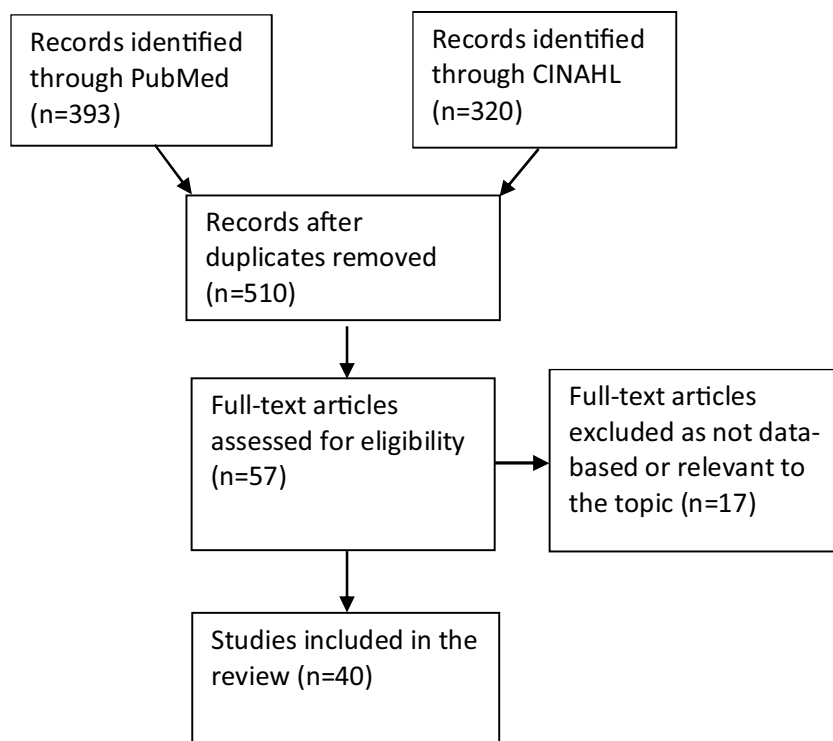


Fig. 1. Flow Chart.

Download English Version:

<https://daneshyari.com/en/article/7515327>

Download Persian Version:

<https://daneshyari.com/article/7515327>

[Daneshyari.com](https://daneshyari.com)