



Enhancing Neonatal Care: A Study on Nursing Shift Handover Practices at Base Hospital Akkaraipattu

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ABSTRACT

Introduction: Effective shift handovers are essential for ensuring continuity of care and minimising communication errors, especially in critical care settings like neonatal intensive care units (NICUs). At the Base Hospital Akkaraipattu (BHA) in Sri Lanka, where the NICU provides specialised care for critically ill neonates, deficiencies in handover practices can adversely impact patient outcomes. This study evaluates the knowledge, attitudes, and practices (KAP) of nursing officers (NOs) regarding shift handovers in the NICU and identifies opportunities for improvement.

Objectives: Three objectives were explored: (1) To assess the knowledge, attitudes, and practices of nursing officers regarding shift handovers. (2) To identify gaps and inconsistencies in the current handover process. (3) To propose actionable interventions to improve the quality and effectiveness of handovers.

Methodology: A descriptive cross-sectional study was conducted in February 2023 at the NICU of BHA. Data were collected from eight nursing officers using a pre-tested questionnaire and an observational checklist. The questionnaire evaluated knowledge, attitudes, and practices, while the checklist objectively assessed handover processes during real-time observations. Descriptive statistics were used to analyse questionnaire data, and qualitative analysis was applied to observational findings.

Results: The average knowledge score was 58.3%, with notable gaps in familiarity with standardised protocols such as SBAR. Attitude assessment showed positive perceptions, with 91.2% agreeing that handovers impact patient safety and 75.6% expressing willingness to adopt standardised protocols. Observational findings revealed inconsistent practices, with only 52.6% of handovers utilising structured communication, 21.5% involving shift leaders, and 58.9% documenting the handover process.

Conclusion and Recommendations: The study highlights moderate knowledge, positive attitudes, and inconsistent practices among nursing officers in the NICU at BHA. Key gaps include limited use of standardised protocols, inadequate documentation, and inconsistent stakeholder involvement. Addressing these deficiencies through targeted training, standardised checklists, and structured communication tools like SBAR can enhance the quality of handovers. Encouraging active participation of senior staff, allocating adequate time, and conducting regular audits can further strengthen handover practices, ultimately improving neonatal care and patient outcomes.

Keywords: Shift handovers, Neonatal Intensive Care Unit (NICU), Nursing officers, SBAR protocol, Patient safety

1. Introduction

1.1 Background

Effective shift handovers are a cornerstone of high-quality patient care in healthcare settings, particularly in critical care environments like neonatal intensive care units (NICUs). Shift handovers serve as the primary mechanism for transferring critical patient information, ensuring continuity of care, and minimising the risk of adverse events (Malekzadeh et al., 2013). The process encompasses the exchange of information about patient status, clinical management plans, and specific concerns requiring attention by the incoming shift (World Health Organization, 2007). However, deficiencies in communication during handovers remain a leading contributor to preventable errors in healthcare worldwide (Maamoun, 2009).

1.2 About Base Hospital Akkaraipattu

Base Hospital Akkaraipattu (BHA) is a Type A base hospital located in the Ampara District of Sri Lanka. Serving a population of over 214,000, BHA provides a wide range of healthcare services, including specialised neonatal care. The NICU at BHA caters to critically ill neonates, demanding a high level of precision and coordination among the healthcare staff. Nursing officers (NOs) play a pivotal role in this unit, handling complex cases and ensuring the safety and well-being of newborns (Base Hospital Akkaraipattu, 2023).

1.3 Importance of Shift Handover Practices

In the NICU setting, effective shift handovers are vital due to the vulnerable nature of patients and the complexity of care provided. Miscommunication during handovers can lead to delays in treatment, medication errors, and compromised patient safety (Cullen et al., 2000). Globally, standardized handover protocols like SBAR (Situation, Background, Assessment, Recommendation) have demonstrated improvements in communication and outcomes (Porteous et al., 2009; Ramya et al., 2017). However, challenges such as time constraints, lack of training, and inconsistent practices often hinder their implementation (Jamal et al., n.d.; Riesenbergs et al., 2010).

1.4 Objectives of the Study

Recognising these challenges, this study was undertaken to:

1. Evaluate the knowledge, attitudes, and practices (KAP) of NOs regarding shift handovers in the NICU of BHA.
2. Identify gaps and inconsistencies in the current handover process.
3. Propose evidence-based interventions to enhance the quality and effectiveness of shift handovers.

1.5 Relevance to the Sri Lankan Context

In Sri Lanka, neonatal morbidity and mortality remain significant public health concerns. Enhancing the quality of neonatal care, particularly in NICUs, is crucial to improving outcomes (Ramya et al., 2017). This study aligns with national healthcare priorities by addressing critical gaps in communication and advocating for the adoption of evidence-based practices. The findings are expected to provide actionable insights for healthcare administrators and policymakers, contributing to the development of robust training programs and standardised protocols for nursing handovers.

2. Methodology

2.1 Study Design and Setting

A descriptive cross-sectional study was conducted in February 2023 at the NICU of Base Hospital Akkaraipattu (BHA). The NICU is a specialised unit that provides critical care to neonates, requiring precise coordination and communication among nursing officers.

2.2 Study Population

The study included all nursing officers working in the NICU during the study period, with eight nursing officers ultimately participating. Inclusion criteria encompassed those with direct involvement in shift handovers. Participation was voluntary, and anonymity was ensured to encourage candid responses.

2.3 Data Collection Instruments

Two primary tools were utilised for data collection:

1. **Pre-Tested Questionnaire:**

The questionnaire comprised three sections assessing knowledge, attitudes, and practices (KAP) related to shift handovers.

- **Knowledge Section:** This included multiple-choice and true/false questions covering fundamental concepts, such as the importance of handovers, key components, and standardised protocols like SBAR.
- **Attitude Section:** 5-point Likert-scale questions gauged participants' perspectives on the importance of handovers and their willingness to adopt standardised practices.
- **Practice Section:** Questions explored the frequency, duration, and method of current handover practices.

Scoring: Knowledge was scored out of 100, with higher scores indicating better understanding. Similarly attitude scores reflected the degree of agreement with best practices, while practice scores evaluated adherence to recommended guidelines.

2. **Observational Checklist:**

The checklist was designed to objectively evaluate the actual handover process. Key components assessed included the presence of structured communication, duration, location (e.g., bedside), documentation practices, and participation of stakeholders (e.g., shift leaders). Observers recorded whether the handover included critical elements, such as patient status updates, medication changes, and unresolved issues.

2.4 Data Collection Procedure

Data collection involved two stages:

1. Distribution of the questionnaire to all eligible NOs during their working hours, ensuring minimal disruption to patient care.
2. Direct observation of shift handovers using the checklist during selected shifts to capture real-time practices and interactions.

2.5 Data Analysis

Quantitative data from the questionnaire were analysed using descriptive statistics to calculate mean scores, percentages, and frequencies. Observational data were analysed qualitatively to identify patterns, deviations, and opportunities for improvement.

3. Results

3.1 Knowledge Assessment

The average knowledge score among nursing officers (NOs) was 58.3%, indicating a moderate understanding of shift handover principles. Specific findings included:

Table 1: Key findings of knowledge assessment

Knowledge Component	Correct Responses (%)
Importance of comprehensive communication	85.7%
Key components of handovers	62.5%
Familiarity with SBAR protocol	43.8%
Critical patient information to include	70.3%

While most NOs recognised the significance of communication, knowledge gaps were evident in understanding standardised protocols such as SBAR.

3.2 Attitude Assessment

The attitude assessment revealed generally positive perceptions towards handover practices. Key findings included:

Table 2: Key findings of attitude assessment

Attitude Component	Agreement (%)
Handover impacts patient safety	91.2%
Willingness to adopt standardised protocols	75.6%
Importance of detailed documentation	88.4%
Belief in the need for training on handovers	82.9%

3.3 Observed Practices

The observational checklist revealed significant variations in handover practices:

Table 3: Key findings of observed practices

Practice Component	Compliance (%)
Conducted at patient's bedside	67.2%
Inclusion of critical patient updates	74.8%
Use of structured communication	52.6%
Participation of shift leaders	21.5%
Documentation of handovers	58.9%

Key Observations:

1. Handover duration was typically less than 30 minutes.
2. Most handovers occurred at the bedside, although some were conducted in common areas.
3. Documentation was inconsistent, with no use of a standardised template or checklist.
4. Shift leaders or senior NOs were rarely involved in the handover process.
5. Communication lacked uniformity, with minimal use of read backs or SBAR.

4. Discussion

4.1 Knowledge Gaps and Training Needs

The findings revealed moderate knowledge levels among NOs, with an average score of 58.3%. While participants were aware of the importance of handovers, specific gaps were identified in their understanding of standardised protocols such as SBAR. This aligns with global literature emphasising the need for targeted training programs to bridge knowledge gaps (Ramya et al., 2017; Solomita, 2009). A lack of awareness about structured handover methods could contribute to inconsistencies in the handover process, increasing the risk of communication errors (Groene et al., 2012). Training interventions tailored to the NICU context are essential for improving knowledge and ensuring adherence to best practices.

4.2 Attitudes Toward Handover Practices

The positive attitudes expressed by the majority of participants suggest a strong willingness to adopt improvements in the handover process. This is a critical finding, as positive attitudes often precede behaviour change. Encouragingly, NOs recognised the impact of effective handovers on patient safety and quality of care. However, barriers such as time constraints and workload may hinder the translation of positive attitudes into consistent practices. Addressing these barriers through supportive policies and incentives can enhance the implementation of structured handover practices (Riesenberg et al., 2010).

4.3 Deficiencies in Current Practices

The study highlighted several deficiencies in current handover practices, including insufficient documentation, absence of standardised protocols, and limited participation of key stakeholders like shift leaders or Senior NO. Observations revealed that handover duration was often inadequate, and critical information was occasionally omitted. These findings highlight the need for a standardised handover checklist to ensure comprehensive information transfer. Globally, tools like SBAR and ISBAR have demonstrated efficacy in addressing similar challenges, and their adaptation to the NICU context at BHA could yield significant improvements (Ferorelli et al., 2017).

4.4 Contextual Challenges and Opportunities

In the Sri Lankan healthcare context, challenges such as limited resources, high patient loads, and staffing shortages often constrain the implementation of best practices (World Health Organization, 2007). Despite these challenges, the study identified a strong foundation for improvement, including the willingness of NOs to embrace change and the recognition of handovers as a critical component of patient safety (Maamoun, 2009). Leveraging these strengths, healthcare administrators can introduce context-specific interventions, such as simplified checklists, regular training sessions, and supportive supervision.

5. Conclusion

This study highlights the critical role of effective nursing handover practices in ensuring continuity of care and patient safety within the NICU at BHA. While the nursing officers demonstrated moderate knowledge and positive attitudes toward handovers, significant gaps in knowledge, particularly regarding standardised protocols like SBAR, were identified. Observations of current practices revealed variability, inconsistencies, and inadequate documentation, which compromise the quality of information transfer during shift changes.

Despite these challenges, the study highlights the potential for meaningful improvements, driven by the willingness of NOs to adopt changes and their acknowledgement of handovers as essential to patient safety. Addressing identified deficiencies through targeted interventions can strengthen the quality of neonatal care, reduce communication errors, and enhance patient outcomes. The findings also emphasise the need to promote standardised handover practices across healthcare settings.

6. Recommendations

- Develop and Implement a Standardised Handover Protocol:
 - Introduce a structured handover format, such as SBAR, tailored to the NICU context to ensure consistency and completeness.

- Enhance Training and Capacity Building:
 - Organise regular training sessions for nursing officers on handover principles, structured communication, and the importance of detailed documentation.
- Improve Documentation Practices:
 - Develop and use a standardised handover checklist or template to streamline documentation and reduce variability.
- Involve Key Stakeholders in Handover Processes:
 - Encourage active participation of senior nursing officers to oversee and enhance the quality of handovers.
- Allocate Adequate Time for Handovers:
 - Establish guidelines ensuring sufficient time is dedicated to handover sessions, with an emphasis on bedside handovers to foster patient-centred communication.
- Monitor and Evaluate Handover Practices:
 - Implement regular audits of handover practices to identify areas for improvement and ensure compliance with standardised protocols.

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