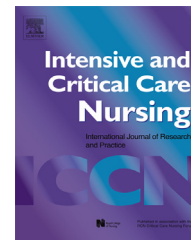




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ORIGINAL ARTICLE

# The need for predictability in coordination of ventilator treatment of newborn infants – A qualitative study



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## KEYWORDS

Collaboration;  
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Mechanical  
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care unit;  
Quality of care

## Summary

**Objective:** New strategies for interprofessional collaboration are needed to achieve best practice in the care of ventilated newborns. This study explores what physicians and nurses believe to be important to improve collaboration during ventilator treatment.

**Methods:** Qualitative data collected from one focus group were analysed using Gittel's theory of relational coordination.

**Results:** To optimise communication about and coordination of ventilator treatment, six strategies were needed: (1) a pathway toward the goal for each newborn, (2) regular meetings, (3) accurate communication following an established pattern in the rounds conference, (4) collaboration to improve interprofessional level of knowledge, (5) courage to communicate one's own point of view, and (6) flexible responsibility in extubation situations.

**Conclusion:** By identifying weak areas in collaboration, nurses and physicians were inspired to suggest and discuss concrete improvements of work practices in the neonatal intensive care unit. Nurses and physicians can coordinate ventilator treatment by using a pathway and at the same time enhance nurses' involvement and responsibility in order to increase the flexibility of job boundaries, allowing the professions to cover for each other's work.

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### Implications for Clinical Practice

- There is a need for predictability in communication and coordination of ventilator treatment of premature and sick newborn infants.
- To achieve a uniform ventilator strategy, it is important to have the ability to individualise the care of the newborns and to balance the pathway between a strict protocol and much less precise guidelines.
- Nurses and physicians can coordinate ventilator treatment by using a pathway and at the same time enhance nurses' involvement and responsibility in order to increase the flexibility of job boundaries, allowing the professions to cover for each other's work.

## Introduction

Collaboration regarding oxygenation and ventilation in premature and sick newborns in neonatal intensive care units (NICUs) may require new strategies and interventions to achieve best practice (Solberg et al., 2013, 2014). This is especially important in terms of the survival of newborns with extremely low birth weight (Vento, 2011). The delivery of effective medical care depends on the professionals who deliver the care, and interprofessional collaboration should be exercised with mutual respect and appreciation (McCormack et al., 2009). Rapid, effective and respectful interprofessional communication is of importance in intensive care units (ICUs) (Storesund and McMurray, 2009). NICU nursing may be affected by personal attributes of physicians such as power, competitiveness, collegiality, beliefs and flexibility (Thomas et al., 2004). It has been suggested that patients' length of stay and hospitalisation costs could be reduced by using more effective medical care with higher levels of relational coordination (Gittell, 2002a; Gittell et al., 2000). One way to improve nurse–physician relationships is by treating their respective knowledge with mutual respect (Pullon, 2008). Better communication between nurses and physicians is fundamental, but existing hierarchies may be a barrier to improvement (Crawford et al., 2012). Communication is influenced by timeliness, preparations, interruptions and delayed or lacking responses (Crawford et al., 2012). Both interprofessional communication and the quality of patient care tend to be improved when using Gittell's theory of relational coordination (Havens et al., 2010; Manojlovich, 2010; Pullon, 2008).

Here, we present the third part of a study regarding the quality of care of ventilated newborns in a Norwegian NICU. The first part endeavoured to discover areas for potential quality improvement regarding oxygen and ventilator treatment and the second part explored how physicians and nurses experienced their collaboration when working with ventilator treatment. Results from the first two studies have been reported elsewhere (Solberg et al., 2013, 2014). The aim of the present study was to explore the views of physicians and nurses on ways to improve collaboration during ventilator treatment. The research questions were: (1) what do physicians and nurses believe to be important for improving communication when collaborating on ventilator treatment, and (2) which strategies do physicians and nurses identify as effective for better coordination of ventilator treatment?

## Theoretical perspective

In acute care, the work of professionals is interdependent and performed under time pressure during care of complex patients and when performing high-risk tasks. Consequently, high quality relationships are important to create collective identity and coordinate the work effectively (Gittell, 2009). The relationships that exist between the professionals in their collaboration of patients is influenced by how they communicate (Gittell, 2002b). We chose the Theory of Relational Coordination as our theoretical perspective for this study because it includes dimensions that characterise the quality of relational coordination between the people who collaborate (Table 1). These are elements used to identify weak areas in a unit (Gittell, 2009). Relational coordination has a strong effect on caregivers' process of preparation to provide and manage care, which promotes better outcomes for patients (Weinberg et al., 2007). In addition, Gittell describes how professionals may achieve and maintain high performance over time using 12 high-performance work systems that help strengthen the relations and systematically coordinate the work effectively (Gittell, 2009). In the following we present the Theory of Relational Coordination, and also focus on six high-performance work systems (Table 1).

### The theory of relational coordination

The theory of Relational Coordination is a “*mutually reinforcing*” process of interaction between communication and relationships carried out for the purpose of task integration (Gittell, 2002b) (p. 301). According to the theory, there are three dimensions of relationships fundamental to the process of coordination: shared goals, shared knowledge and mutual respect. High quality of communication should be characterised by frequent, timely and accurate communication and focused on problem solving (Gittell et al., 2000, 2008). Consistent with Gittell's thoughts, shared goals create powerful ties between caregivers and motivate them to achieve agreement in decision-making (Gittell, 2009). Caregivers must share knowledge regarding each other's tasks, clarify who needs to know what and emphasise the degree of urgency. In addition, mutual respect between professionals and acknowledgement of their expertise create powerful bonds in highly interdependent work processes

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