JOGNN CLINICAL ISSUES

Nurse-Physician Communication During Labor and Birth: Implications for Patient Safety

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Objective: To describe communication between nurses and physicians during labor within the context of the nurse-managed labor model in community hospitals and its relationship to teamwork and patient safety.

Design: Multicenter qualitative study involving focus groups and in-depth interviews.

Setting: Labor and birth units in 4 Midwestern community hospitals.

Participants: 54 labor nurses and 38 obstetricians.

Methods: Focus groups and in-depth interviews were conducted using open-ended questions. Data were analyzed using inductive coding methods to gain understanding from the perspective of those directly involved.

Main outcome measures: Description of interdisciplinary interactions during labor.

Results: Nurses and physicians shared the common goal of a healthy mother and baby but did not always agree on methods to achieve that goal. Two clinical situations critical to patient safety (fetal assessment and oxytocin administration) were frequent areas of disagreement and sources of mutual frustration, often leading to less than optimal teamwork. Minimal communication occurred when the mother and fetus are doing well, and this seemed to be purposeful and considered normal. Physicians and nurses had distinct opinions concerning desirable traits of members of the other discipline.

Conclusions: Interdisciplinary communication and teamwork could be improved to promote a safer care environment during labor and birth. *JOGNN, 35, 547-556*; 2006. DOI: 10.1111/J.1552-6909.2006.00075.x

Keywords: Electronic fetal monitoring—Interdisciplinary communication—Interdisciplinary teamwork—Intrapartum care—Labor and birth—Nurse-managed labor—Oxytocin—Patient safety

Accepted: January 2006

Communication failures are the leading cause of preventable patient injuries and death (Joint Commission on Accreditation of Healthcare Organizations [JCAHO], 2005) and medical malpractice claims (ECRI, 2005). When breakdowns in communication occur, mothers and babies are at risk for harm. Standardized, structured communication has been promoted as a method to promote patient safety (JCAHO, 2004; Kohn, Corrigan, & Donaldson, 1999), but evidence is limited on how much interdisciplinary communication is optimal in common clinical situations.

There is considerable evidence that teams accomplish most safety critical tasks better than individuals (Merry & Brown, 2002). Most of the early data about effective teamwork originated from the aviation industry, but over the past few years, evidence of the effect of teamwork on patient outcomes has emerged (Baggs et al., 1999; Morey et al., 2002). Most studies of teamwork have been conducted in intensive-care units and emergency departments and have focused on face-to-face communication. In contrast, in most community hospitals, intrapartum care occurs within the context of the nurse-managed labor model, in which nurses are in a relatively autonomous role. In these settings, nurses make many decisions based on standing orders, communicating "as needed" with physicians by telephone. Communication and interdisciplinary teamwork during labor and birth has received little research attention.

In most community hospitals, intrapartum care occurs within the context of the nurse-managed labor model, in which nurses are in a relatively autonomous role.

The purpose of this study was to describe communication between expert labor nurses and their physician colleagues during labor within the context of the nurse-managed labor practice model in community hospitals and its relationship to teamwork and perinatal patient safety. This study was part of a larger multicenter research project on the impact of interventions by expert labor nurses on patient outcomes. A methodological triangulation design was used, which included focus groups, in-depth interviews, and medical record reviews. Perceptions of the role of expert labor nurses have been previously reported (James, Simpson, & Knox, 2003).

Methods

Design

Focus group methodology (Kitzinger & Barbour, 1999) was used to explore expert labor nurses' views of their role in caring for women during labor and their ability to affect clinical outcomes. In-depth interviews (Johnson, 2002) of obstetricians from the same institutions were used to explore their opinions of whether expert labor nurses influenced labor and birth outcomes and to verify nurses' perceptions of interdisciplinary interactions during labor. Institutional review board approval was obtained from each investigator's institution and the clinical sites where the study was conducted. Consent forms outlining details of study participation were completed prior to focus groups and interviews. Participants were assured that their comments would be kept confidential.

Recruitment

Participants were recruited from labor and birth units of four large Midwestern medical centers where nurse-managed labor was the predominant practice model. Average number of annual births in each of these medical centers was 2,800, 3,400, 3,500 and 6,500. Expert nurses (defined as 5 years or more of labor experience) and all obstetricians were eligible to participate. A memo including a brief description of the research project was sent to potential subjects inviting their participation. A study coordinator at each site facilitated participant recruitment and scheduling.

Description of the Sample

Fifty-four nurses participated in eight focus groups (two focus groups at each of the four sites). An average of six to eight nurses participated in each focus group. Although range of experience was 5 to 38 years, most nurse participants had more than 10 years experience, and approximately 20% had more than 20 years experience. Thirty-eight obstetricians with a range of experience from 4 to 32 years participated in individual in-depth interviews. The majority of participants indicated their experience was limited to the same institution; thus, they had only practiced in units that used nurse-managed labor as the predominant model of care.

Data Collection Procedures

Focus groups were held in a private conference room away from the clinical unit. Each session lasted approximately 1.5 to 2 hours. Participants sat around tables or in chairs in a circle to enable interactions. Open-ended interview questions guided the discussions. Nurses were asked whether they believed that their care influenced labor and birth outcomes, specifically whether a woman had a vaginal or cesarean birth. Groups were animated and discussions progressed with minimal prompting from the group moderator.

Interviews with physicians were held in their private offices and lasted an average of 30 to 45 minutes. Open-ended questions guided the in-depth interviews. Physicians were asked whether they believed that labor nurses at their institution influenced clinical outcomes. The discussion flowed from this initial question with follow-up questions as needed. The physicians appeared to be open in their discussion and to welcome the chance to participate.

An assumption was made that nurses and physicians would be more willing to speak openly to a member of their respective disciplines based on evidence that "insider status" is important in developing rapport (Oakley, 1981). The moderator for all group sessions was a nurse investigator and the interviewer was a physician investigator, neither of whom had an affiliation with that hospital. All sessions were audiotaped. Notes taken by the moderator and interviewer provided additional detail during analysis.

Data Analysis

The audiotapes were transcribed verbatim by a professional transcriptionist. The transcripts were then reviewed by one of the investigators while listening to the tapes. All identifying information was deleted and code numbers were assigned to participants. The cleaned transcripts were reviewed and analyzed individually and then collectively by the research team. Data were analyzed using inductive coding methods (Hesse-Biber & Leavy, 2004) to identify themes related to interdisciplinary communication and team interactions during labor. The key ideas, words, and quotations generated by the researchers were