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Communicating with parents in neonatal intensive care units: The impact on parental stress

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ABSTRACT

Objective: To analyse stress in parents whose infants with very low birth weight have just concluded high-level care in a Neonatal Intensive Care Unit (NICU). More specifically, we aimed 1) to identify groups of parents in the NICU who are particularly at risk of experiencing stress, and 2) to explore the effects of clinical staffs' communication on parental stress.
Methods: Our multi-center-study evaluated views from 1277 parents about care for 923 infants in 66 German NICUs. Answers were linked with separately evaluated medical outcomes of the infants. Separate generalised mixed models estimated the influence of personal, medical and communication-related characteristics on specific parental stress.
Results: Parents of a younger age and those of infants with severe prognoses were more likely to experience stress. While empathetic communication as one aspect of staffs' communication was shown as appropriate in reducing parental stress, an initial introduction and the quantity of information were only slightly associated with lower levels of stress.
Conclusion: Results provide evidence for the need to involve parents empathetically from the beginning of their child's stay in the NICU.
Practice implications: Staff in the NICU should communicate empathetically and help to reduce stress in parents particularly at risk.

1. Introduction

Medical advances in industrialised countries increasingly enable care for infants with birth weights below 1500 g. These are classified as infants with very low birth weight (VLBW infants) and usually treated in Neonatal Intensive Care Units (NICUs). Compared to full-term infants they are at higher risk of serious postnatal complications and severe impairment [1–3]. In addition, the number of parents of VLBW infants is increasing and heterogeneous, as the causes of preterm birth are multifaceted and partly remain unexplained. Due to uncertainty, loss of control and anxiety, the parents of VLBW infants are likely to experience higher levels of stress [4–7]. As a consequence, parents in the NICU are more likely to face symptoms of acute stress disorder and long-term symptoms of posttraumatic stress disorder [8–11]. Dudek-Shriber reported infant illness and the degree of infant prematurity as particularly significant risk factors for parental stress [12], while Reid and Bramwell found lower age to be the only factor associated with higher levels of specific stress [13]. However, research on the variables associated with higher levels of stress in parents of preterm infants is lacking. Nonetheless, such insights are needed to target interventions for the most vulnerable parents in NICUs.

In the current paper, we focus on stress occurring in parents immediately after high-level care. High-level care is the most critical period, lasting at least two weeks after birth. The beginning of the phase immediately after high-level care is particularly important, as it is the first chance to form a deep-seated attachment between parents and infant. An early identification with the parental role is urgently required, since parents will be the child's primary source of strength and support after discharge. Stress in parents may hinder identification with this new parental role, which Miles and colleagues describe as stress in 'parental role

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alteration' [4,14,15]. To reduce stress and enable this parental role alteration, clinical staff are prompted to apply well-established principles of Family-Centred Care (FCC) [16–21]. FCC aims to consider special needs in individual care by expanding the view from the patient only to include the whole of the patient's family. Studies of FCC stress the high importance of healthcare professionals fostering parental role alteration through welcoming, empowering and involving behaviour [20,22,23] as well as educational support to guide them from the position of outsiders to partners in the care of their child [24–28]. Therefore, the importance of giving appropriate and timely [29] information and communicating empathetically [30,31] is highlighted in the current literature on FCC. Empathetic communication in clinical settings comprises four components. The ability to subjectively experience another's feelings (emotive), an altruistic force that motivates empathetic practice (moral), an understanding of the other person's perspective (cognitive) and finally the ability to act in a helpful way that is based on a validated understanding (behavioural) [32,33]. On the other hand, miscommunication, for example communication that is vague and indirect, inadequate explanations and too much or conflicting information are described as barriers that hinder parental education and parents' ability to actively constitute a parent-infant relationship [34–36]. Although a variety of aspects of favourable communication is recommended to healthcare professionals in NICUs, there is no evidence provided that analyses the effects on parental stress of the different aspects of clinical staffs' communicational support immediately after high-level care.

Thus, this study seeks 1) to identify groups of parents in NICUs who are particularly at risk of experiencing stress that source from healthcare professionals' miscommunication ('communication stress') and hindered parental role alteration ('role stress'), and 2) to explore effects of initially introducing parents on the NICU, clinical staffs' information support and empathy in communication on both communication stress and role stress. To consider parents' specific situations as precisely as possible, we linked the self-reported data of parents with data on their children's medical outcomes.

2. Methods

2.1. Context

Our study is part of the greater interdisciplinary multi-center study 'Health Services Research in Neonatal Intensive Care Units' (HSR-NICU), which has already been piloted [37]. HSR-NICU explores factors influencing the quality of care for VLBW infants in German NICUs. This study is approved by the ethical review committee of the University of Cologne (#12-228), registered in the German Clinical Trials Register (DRKS00004589) and counselled by an independent and interdisciplinary scientific advisory board.

The present paper focuses on the results of the questionnaires handed to participating parents to measure stress and to analyse the impact of perceived communication on parental stress. In the following sections, the multi-center study and relevant parts of the questionnaire will be described briefly, concentrating on information that is important for the current analysis. A comprehensive description of HSR-NICU and a detailed analysis of psychometric properties of the developed instrument will be published elsewhere [38].

2.2. Sample and study procedure

All 229 German NICUs were eligible to be included. Infants needed to be born between May and October 2013, with a birth weight below 1500 g and receiving continuous treatment in a participating NICU. In case of birth outside participating NICUs, infants had to be admitted within 24 h of birth. The inclusion further required German-speaking parents or an interpreter to be present, and written informed consent from both parents. In regard to this written informed consent, the self-reported data of parents were collected, anonymised and sent back autonomously. Parents who had experienced multiple births were asked to fill out one questionnaire for each infant. The highest possible comparability between parental views on high-level neonatal care [39] was reached by informing and asking parents to participate at one fixed

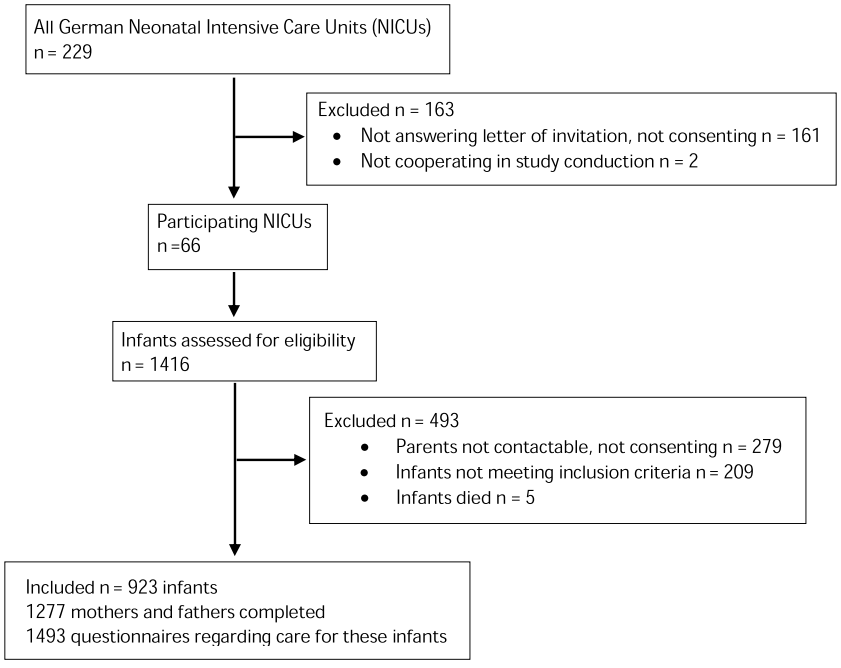

Fig. 1. Sample structure – Flow through participating NICUs, infants and parents in HSR-NICU.

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