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Pregnant women's management of activity restriction during hospitalisation — A question of yielding and not feeling deprived of a sense of control

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Abstract *Background:* Maternal activity restriction (AR) is an obstetric intervention recommended to prevent preterm birth, despite limited evidence of treatment effect and obvious adverse effects. Some pregnant women manage AR well, others poorly.
Aim: We aimed to explain why pregnant women respond differently to AR.
Methods: Using grounded theory, pregnant women were interviewed during inpatient AR.
Results: *Being without a sense of control* was identified as core category which was shared by all the women, yet less stressful to manage when yielded in a self-determined way rather than experienced as involuntarily deprived. Good or poor management depended on five challenging dimensions: *Having to find meaning*, *Being in a helpless and dependent state*, *Having to put aside personal values*, *Tolerating limitations of freedom* and *Having confidence in the AR therapy.*
Conclusion: Identification of the challenging dimensions of AR can guide health care providers in tailoring their support to each individual woman's reaction.

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Background

Maternal activity restriction (AR), through antenatal bed rest, is a well known and commonly prescribed intervention in obstetrics used to prevent preterm birth (Fox et al., 2009; Maloni, 2010; Sciscione, 2010). However the evidence of a preventive effect on preterm birth is limited and inconclusive (Elliott et al., 2005; Sosa et al., 2004) and thus reports of the beneficial effect of AR treatment are based on assumptions. Until now the "non-evidence-based" approach of AR has been accepted in obstetrics, in preference to a "non-interventional" approach to pregnancies at risk, because devastating outcomes of very premature births are well known (Sciscione, 2010).

A strict definition of AR implies bed rest for the entire day, except for visits to the bathroom (Sciscione, 2010). There is extensive evidence on the detrimental effects of bed rest, irrespective of whether the activity-restricted patient is pregnant or not (Fregly et al., 1996; Maloni, 2002). Moreover antenatal AR treatment increases the risk of maternal physical, behavioural, and psychosocial adverse effects that may last beyond the postpartum period (Maloni, 2010, Maloni et al., 1993).

From clinical experience it is known that some pregnant women handle this type of treatment well, whereas others become distressed with mood alterations and cognitive changes (Barlow et al., 2008; Maloni, 2010). However, according to the literature, little is known about pregnant women's different reactions to AR treatment during hospitalisation. Only by understanding the differences in these reactions will enable health care professionals (HCP) to tailor individual care of women treated with AR.

The aim of this study was to identify the theoretical patterns of management in pregnant women undergoing AR during hospitalisation in order to explain the expected diversity in their management.

Methods

Principles from grounded theory (GT) were followed. GT derives from the social sciences, involving generation of theory from data through a systematic constant comparative method, as described by Glaser (1978) and Glaser and Strauss (1967). Data was collected February—May 2010 at two Danish university hospitals. Owing to time limitation, we had to use a convenient sample (Crabtree and Miller, 1999) and limit theoretical sampling to conducting and analysing the interviews while developing the theory.

We asked 23 pregnant women to participate if they were $\geq$18 years of age, spoke, understood, and read Danish, hospitalised with AR for a minimum of 7 days because of imminent preterm birth. Written informed consent was signed by twelve women of whom three gave birth prematurely and one was discharged before the interview was conducted. Eleven women declined for unknown reasons.

Ethical approval was obtained from the two participating hospitals.

Data collection and analysis

Data comprised of audio-recorded semi-structured interviews (Kvale and Brinkmann, 2009), conducted in a peaceful location at the hospital. A number of clarifying and elaborating questions were posed during each interview. As theory emerged from the constant comparative analysis, the interview guide was modified. Theoretical saturation was achieved when the data collection confirmed the emerging theory. The interviews were conducted and transcribed by the first author.

The data was analysed using constant comparison, as recommended by Strauss and Glaser (Glaser, 1978; Glaser and Strauss, 1967). Open coding was initially performed and subsequently a critical comparison focused on the most solid categories with advancement of lasting categories and subcategories. When ideas for tentative links between categories emerged, we performed comparisons across the data sources to investigate and confirm possible links between concepts. The initial theoretical constituents were compared to form larger constituents for further theory building and finally theoretical analysis was used and continued throughout the writing process. At each step we returned to former steps to test the fit, work, relevance, and modifiability of the constituents (Glaser, 1978; Glaser and Strauss, 1967). As the constant comparison between codes and data revealed that a sense of lacking control was shared by all the hospitalized women it led to identifying the core category of the emerging theory *Being without a sense of control* (Table 1). Arranging selective codes in matrices helped us to identify two opposing ways of managing the sense of being without control: 1) an active approach that involved a sense of choice and vigour, and 2) a passive approach that involved a sense of involuntariness and powerlessness (Table 1). The women's descriptions of their experiences of being without control were arranged on separate continua. Ongoing analysis demonstrated and verified that the core category was influenced by several