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Early pushing urge in labour and midwifery practice: A prospective observational study at an Italian maternity hospital

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ABSTRACT

Objective: to investigate the early pushing urge (EPU) incidence in one maternity unit and explore how it is managed by midwives. The relation to some obstetric outcomes was also observed but not analysed in depth.
Design: prospective observational study.
Setting: Italian maternity hospital.
Sample: 60 women (44 nullips and 16 multips) experiencing EPU during labour.
Findings: the total EPU incidence percentage was 7.6%. The single midwives' incidences range had a very wide margin, noting an inverse proportion between the number of diagnoses of EPU and midwife's waiting time between urge to push and vaginal examination. Two care policies were adopted in relation to the phenomenon: the stop pushing technique ($n=52/60$) and the '*let the woman do what she feels*' technique ($n=8/60$). In case of stop pushing techniques, midwives proposed several combined techniques (change of maternal position, blowing breath, vocalisation, use of the bath). The EPU diagnosis at less than 8 cm of cervical dilatation was associated with more medical interventions. Maternal and neonatal outcomes were within the range of normal physiology. An association between the dilatation at EPU diagnosis and obstetric outcomes was observed, in particular the modality of childbirth and perineal outcomes.
Conclusions and implication for practice: this paper contributes new knowledge to the body of literature around the EPU phenomenon during labour and midwifery practices adopted in response to it. Overall, it could be argued that EPU is a physiologic variation in labour if maternal and fetal conditions are good. Midwives might suggest techniques to woman to help her to stay with the pain, such as change of position, blowing breath, vocalisation and use of the bath. However, the impact of policies, guidelines and culture on midwifery practices of the specific setting are a limitation of the study because it is not representative of other similar maternity units. Thus, a larger scale work should be considered, including different units and settings. The optimal response to the phenomenon should be studied, considering EPU at different dilatation ranges. Future investigations could also focus on qualitative analysis of women and midwives' personal experience in relation to the phenomenon.

Introduction

The nature of physiological childbirth is highly debated. The results of research during past decades have contributed to clinicians' reconsideration of the definition of second stage of labour. The traditional definition states that it starts with full dilatation of cervix and finishes with birth (Roberts et al., 1987, 2004). However, some women may experience the urge to push before the full dilatation of cervix: this phenomenon is clinically called early pushing urge (EPU). The diagnosis of EPU is made with the perception of irresistible urge to push by the woman before full cervical dilatation, confirmed by vaginal examination (Downe, 2008).

A series of questions about the phenomenon arose: how frequently does the phenomenon of early pushing urge occur? How do midwives manage EPU? It could be debated that early pushing urge is an unpredictable and non-preventable phenomenon that cannot be avoided through specific clinical management strategies. Indeed, the midwife can often act only after the

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appearance of the phenomenon. There is no scientific evidence on the optimal response to the EPU (Perez Botella and Downe, 2006).

The aim of this study was to investigate the early pushing urge (EPU) incidence in one delivery unit and explore how it is managed by midwives. The relation to some obstetric outcomes was also observed but not analysed in depth.

Background

The nature of the physiology of the second stage labour has been subject of debate for many years (Cohen, 1977; Yeates and Roberts, 1984; Simkin, 1986; Maresh, 1987; Roberts et al., 1987, 2004; Buxton and Redman, 1990; Roberts and Woolley, 1996; Petersen and Besuner, 1997; McCandlish et al., 1998; Roberts, 2002; Downe, 2003; Sampselle et al., 2005; Roberts and Hanson, 2007).

While most scientific research was conducted in the area of organised versus spontaneous pushing efforts, or delayed compared to the immediate pushing following the diagnosis of full dilatation of the cervical os in the context of epidural analgesia, the topic of early pushing urge appears to be less discussed (Roberts, 2004). There are controversies about the prevalence of EPU, the nature of the phenomenon and the optimum approach to management (Perez Botella and Downe, 2006).

Berkeley and Fairbairn (1931) affirmed that no good can be done by bearing down before the dilatation of the cervical os is complete or nearly complete. Other authors, although they appear to be strong supporters of physiology of labour, agree, stating that pushing before complete dilation of the cervix can be harmful. Benyon (1957) states categorically that everyone now accepts that pushing before full dilatation is both useless and harmful and condemns it utterly. Gaskin (1990) makes a brief reference to the technique of avoiding the push if the dilatation is not complete, waiting further time. Gaskin says that pushing before complete dilation can increase the risk of cervical trauma and the onset of uterine prolapse, suggesting that the practitioner should reduce the lip of cervix, if it is present. Therefore, it has been traditionally assumed that the early urge to push is pathological, and that it will lead to maternal exhaustion and/or cervical oedema or trauma.

More recent researchers (Roberts, 1987; Petersen and Besuner, 1997; Enkin et al., 2000) indicate that EPU may be experienced by a significant minority of women, suggesting that, in certain circumstances, it may be physiological. Until recently, both researchers and obstetric textbooks have generally presented EPU as a phenomenon that can be avoided through specific practices such as changing maternal posture and techniques of breathing (Davis-Floyd and Sargent, 1997). However, it is still not clear whether these findings are influenced by factors such as maternal posture, fetal position or parity, and there is not enough evidence to determine the optimal response to the phenomenon. Recent editions of obstetric textbooks suggest that the evidence on the impact of EPU on maternal and fetal outcomes is equivocal and there is no evidence on the optimal response to the phenomenon (Downe, 2003). Downe (2003) claims that the midwife needs to work with each individual woman in the context of each labour to determine the best approach in the specific case.

The earliest research in this area appears to be Yeates and Roberts (1984), who found that nine out of 10 women experienced the EPU. Roberts (1987) undertook another research project, with the explicit aim of investigating the phenomenon of early pushing urge. She found that 54% of women ($n=17/31$) experienced EPU at less than 9 cm of cervical dilation.

Downe (2008) explored the incidence of diagnosis of EPU by a sample of English midwives finding an incidence of 20% ($n=153/765$ women in labour) and examined the practice of midwives in relation to the phenomenon. This result appears to be at odds with the previously published literature and Downe (2008) states that the estimate of 20% women experiencing the EPU is probably artificially low. However, this is still a significant proportion of women and her results provide ample justification for carrying out a study in this area.

Downe (2008) cites an extensive audit carried out in 1994–1995 in the USA by the *Association of Women's Health, Obstetrics and Neonatal Nurses* (*AWHONN*), involving more than 1500 midwives of 40 maternity units located in USA and Canada. Nearly 93% of respondents reported that they had witnessed the EPU in labouring women. In case of early pushing urge, 45.5% of midwives claimed to implement a policy of a non-push technique involving a *blowing breath* in order to minimise the risk of cervical laceration and oedema. Blowing breath is a slow, shallow breath that is done while the woman is relaxed, not forcing herself to go beyond what is comfortable. Beginning with this cleansing breath, the woman then gently inhales through her nose and, on the exhale, softly blows through her mouth, ending with another cleansing breath (Lothian and De Vries, 2010). The *Guide to Effective Care in Pregnancy and Childbirth* (2000) concludes that if the mother feels that she wishes to start pushing when the cervix is less than 8 cm dilated, the woman should be asked to find the position in which she feels most comfortable and try to resist the urge to push by trying alternatives such as breathing techniques. If there is only a rim of cervix left and the woman has an irresistible urge to push, she may feel better doing so as, the authors suggest, it is unlikely that any harm will come from spontaneous pushing before full dilatation providing she does not exhaust herself.

After noting the lack of studies about midwifery practice in relation to the early pushing urge, Downe (2008) undertook two mixed methods projects in UK. Practice implemented by midwives in case of EPU were as follows: change of maternal position, maternal mobilisation, breathing techniques, pharmacological and alternative pain relief, manual reduction of the cervix, back massage, use of the bath, aromatherapy, giving information and supporting the labouring mother (midwives that offered support were equally divided between support to stop pushing and to '*go with her instinct*'). Midwives tended to differ in their approach depending on the parity of the woman and the stage of cervical dilatation (nullips who were pushing at earlier dilatations were actively discouraged from pushing more than multips pushing at later dilatations). Fear of cervical oedema or damage, avoiding maternal and fetal stress and supporting the physiological process of labour were the main drivers for the midwives' responses to the EPU. Observing women in labour was the most powerful influence on midwifery practice. Other influencing factors were as follows: midwifery training, peer influence, teachings of mentors and having own babies. Downe (2008) concludes that the same woman may respond differently depending on the accompanying midwife in childbirth, and how different midwives, while watching the same maternal behaviour, can come to different conclusions about the physiology or pathology of the event.

If EPU does occur so regularly, it may be a physiological process for some women. However, there is no definitive evidence from research studies of the consequences for mother or infant when comparing different support approaches to the phenomenon. The literature review raises interesting questions as there is no agreement about the real incidence of EPU, the nature of the phenomenon and the optimum midwifery practice in response to it. There is a clearly need for further research on all aspects of EPU in order to recommend midwifery practices based on sound evidence. This article aims to contribute new knowledge in the body of literature around the EPU phenomenon during labour and midwifery practices adopted in response to it.