Introduction

For many women childbirth is the most painful experience encountered. In Western cultures the use of epidural analgesia (EA) during childbirth is widespread, and its benefits are well recognized (Leighton & Halpern, 2002). However, many women do not choose EA (Horowitz et al., 2004). Why some women favour EA and others do not is not known. This study was designed to explore the reasons that inform the choice of EA. Two theoretical models have influenced the approach to this question.

According to the Theory of Planned Behaviour (Ajzen, 1991), future behaviour that is under the control of the individual, is best explained by the intention to perform that behaviour (attention), the attitudes towards the behaviour (attitudes), the expectations of others about the behaviour (subjective norms), and the perceived control/ability to perform the behaviour (perceived control).

Catastrophic thinking about pain is a key psychosocial variable in explanations of how adults and children experience pain, distress and disability (Keefe et al., 2004). Sullivan et al. (2001) extended the appraisal model of catastrophizing and urged researchers to look at the communicative function of catastrophizing as a signal of distress to solicit assistance from others. Despite the growing amount of research on pain catastrophizing, little is known about the influence of catastrophizing on decision-making. Childbirth may provide a unique and natural setting in which to investigate the various effects of pain catastrophizing.

Methods

Participants

This study included 114 women who were recruited from two maternity clinics. The mean age of the sample was 28.74 (range 18 - 41). 98.3% were married or cohabiting. 55.3% had attended maternity clinics. The mean age of the sample was 28.74 (range

Questionnaires

- Catastrophic thinking about pain was assessed by the Pain Catastrophizing Scale (PCS; Sullivan et al., 1995).
- The Beliefs about Epidural Analgesia Questionnaire (BEAQ) assesses beliefs about epidural analgesia that might influence the decision to choose EA.
- The Childbirth Experience Questionnaire (CEQ) consists of 10 items assessing the experience of childbirth, more specifically the distress and pain experienced.

The BEAQ and the CEQ were specifically designed for this study. Women completed the BEAQ and the PCS between the 32nd and 40th week of their pregnancy. After childbirth, the women completed the CEQ.

Results

Use of Epidural Analgesia, intention and demographic characteristics. Eventually, more than half of the women chose EA. As might be expected, there was a strong relationship between intention and actual use of EA (x²(2) = 24.15, p < .001). In 75.6% the intention was realized. Women who were pregnant with their first child, more often chose EA than women who had already one or more children (x²(1) = 6.69, p < .05).

Differences in beliefs about Epidural Analgesia. There were pronounced differences between women who did and did not choose EA in:

- Attitudes: women who chose EA expressed a greater desire to enjoy their childbirth and to have a pain-free and relaxed childbirth, believed more strongly that EA was comfortable and safe, more strongly agreed that suffering during childbirth is needless, and were more afraid of being overwhelmed by the pain.
- Social norms: women who chose EA were more influenced by stories about contraceptive options of other women, by positive experiences of family and friends, and by information from the maternity clinic.
- Subjective control: women who chose EA felt less able to control pain and sufferings during childbirth.

Predictors of EA using logistic regression. A logistic regression analysis using a backward inclusion method revealed four unique predictors of EA:

Beliefs

- Intention to use EA in the future (r² = .29) (OR = Adjusted Odds Ratio; 95% CI = 95% Confidence Interval; * p < .05; ** p < .01).
- Withholding of pain (r = .26) (p = 0.26 - 0.94)
- Willing a pain-free childbirth (r = .28) (p = 1.18 - 4.28)
- Fear of the potential side effects of EA (r = .34) (p = 0.22 - 0.76)
- Positive experiences with EA of family and friends (r = .27) (p = 1.27 - 6.04)

Using this parsimonious and robust model, 71% of the women could be correctly classified as a function of their EA use.

The effect of pain catastrophizing upon use of EA, upon beliefs about EA and upon the childbirth experience. To our surprise, pain catastrophizing was not predictive of EA use (x²(1) = 1.09, p = .30). However, catastrophizing about pain was related to a number of beliefs about EA and to the childbirth experience. Figure 1 presents the (significant) Pearson correlations between (1) beliefs and pain catastrophizing and (2) the childbirth experience and pain catastrophizing for both the EA and the non-EA group.

Conclusions

The present study was designed to investigate why women choose or don’t choose EA. In this study 55% of the women chose EA. A model with four unique predictors allowed the prediction of EA use in 71% of the women: Parity status and the fear of EA side effects reduced the odds of choosing EA by half; the desire to have a pain-free childbirth and positive experiences with EA of family and friends doubled the odds.

An important aim of our study was to explore the effects of pain catastrophizing. First, pain catastrophizing was related to the fear of being overwhelmed by childbirth pain and to tendencies to avoid the pain. Second, pain catastrophizing, especially in those who did not choose EA, was predictive of a distressing childbirth experience.

The present study may suggest an alternative explanation of why women choose or do not choose EA during childbirth: women who choose EA were more influenced by stories about contraceptive options of other women, by positive experiences of family and friends, and by information from the maternity clinic. In contrast, women who did not choose EA were more afraid of being overwhelmed by the pain and more afraid of being overwhelmed by the pain.

References


* Corresponding author: Eva Van den Bussche, Gent University, Henri Dunantlaan 1, 9000 Gent, Belgium. Email: eva.vandenbussche@UGent.be