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## The Fear of Childbirth: A Study in the North of Portugal

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### Abstract

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Childbirth is a universal phenomenon and a meaningful experience that has the potential to trigger developmental transitions, stress, anxiety and/or fear, which, at times, can negatively impact future childbirth experiences.

An exploratory and descriptive study was conducted aiming to identify the levels of fear experienced by pregnant women associated with childbirth and their main causes. A convenience sample was selected. Data collection were carried out in an outpatient obstetric hospital in the northern region of Portugal, between July 2010 and July 2012. To evaluate the intensity of fear of childbirth a visual analogic scale of 10 points was applied. Interviews were conducted in order to identify the main causes of fear. Ethical approval and informed consent were obtained.

Regarding the level of fear, the majority (98%) of pregnant women had fear of childbirth, 60.2% reported moderate fear and 28% intense fear. Anxiety, primiparity and lack of knowledge related to birthing were also found to increase the fear of childbirth.

Some of the main causes of fear identified were: complications during childbirth; pain/suffering; not knowing how to cope with pain; not able to give birth; baby with malformation/disease and/or suffering.

Most women feel moderate or intense fear of childbirth and this is associated to well identified causes with high impact on the woman and family. To minimize the effects of fear, an early intervention has to be considered, including childbirth education classes where nurses can address and work women's fear in order to minimize it and promote a more positive experience.

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### 1. Introduction

Pregnancy and childbirth are important events likely to cause developmental transitions and significant changes in the lives of women and families. These events can have a strong impact on their emotional balance, often triggering feelings of stress, anxiety, or fear.



The fear of childbirth can be triggered before or during pregnancy, being experienced during labour and delivery, with effects that can even linger afterwards. It influences daily life activities, the decision on a cesarean section delivery, and sometimes even the postponement of pregnancy (Melender, 2002; Hildingsson, Rådestad, Rubertsson & Waldenstrom, 2002; Bahl, Strachan & Murphy, 2004; Nilsson & Lundgren, 2009). During childbirth, fear leads to an increased perception of pain (Lang, Sorrell, Rodgers & Lebeck, 2006), potentially causing the woman to request an elective caesarean section (Saisto, Salmela-Aro, Nurmi, & Halmesmäki, 2001; Hildingsson et al., 2002; Saisto, & Halmesmäki, 2003; Bahl et al, 2004), prolong labour, and contribute to a negative birth experience and low satisfaction levels with childbirth (Larsen, O'Hara, Brewer, & Wenzel, 2001; Hildingsson et al., 2002; Johnson, & Slade 2002; Melender, 2002; Hofberg, & Ward, 2003; Saisto, & Halmesmäki, 2003; Wax Cartin, Pinette, & Blackstone, 2004; Waldenstrom, Lang et al, 2006; Hildingsson, 2008; Rouhe, Salmela-Aro, Halmesmäki, & Saisto, 2008; Nilsson & Lundgren, 2009; Fenwick, Gamble, Nathan, Bayes, & Hauck, 2009). Compared to available international data, evidence on the extent and causes of childbirth fear in the Portuguese population is limited. An exploratory and descriptive study was conducted aiming to identify the levels and the main causes of childbirth fear in pregnant women.

## **2. Methodology**

An important aspect pertaining to the childbirth experience is fear, which can be defined as: "Feeling threatened, endangered or disturbed due to known or unknown causes, sometimes triggering a physiological response known as fight-or-flight" (ICN, 2011, p. 61).

In nulliparous women, the intense fear of childbirth is related to the perceived lack of control and self-confidence in their ability to safely bear a child. Some authors define this fear as "primary fear of childbirth or primary tokophobia" (Nieminen, Stephansson, & Ryding, 2009; Fenwick, Staff, Gamble, Creedy, & Bayes, 2010; Fenwick et al., 2013). According to Fenwick et al. (2013), in multiparous women, the cause of fear is often associated with a previous negative labour experience. The authors describe this as a "secondary fear" or "secondary tokophobia" (Zar, Wijma, & Wijma., 2001; Saisto et al, 2001; Hofberg, & Ward, 2003; Nilsson, Lundgren, Karlström, & Hildingsson, 2012; Fenwick et al, 2013).

Globally, the prevalence of fear associated with childbirth is estimated at around 20%. Of this, 6-10% of the women experience severe levels of fear, which influences their ability to expect a normal birth (Kjaergaard, Wijma, Dykes, & Alehagen, 2008). A study conducted by Lukasse et al. (2014) in six European countries shows that 11% (n=768) of all the women participants reported intense fear of childbirth, 11.4% were primiparous women and 11.0% multiparous women. In these countries, the prevalence of intense fear among primiparous women varied from 4.5% (in Belgium) to 15.6% (in Estonia). Among multiparous women, the prevalence of intense fear varied from 7.6% (in Iceland) to 15.2% (in Sweden). The results of the study conducted by Haines, Pallant, Karlström, & Hildingsson (2011) in Australia show that almost 30% of Australian and Swedish women had high levels of childbirth fear, with significantly higher levels in Swedish primiparous women, compared with multiparous women. In Portugal, there is limited research evidence on the fear of childbirth. One of the few studies addressing this subject was conducted in the North of Portugal. Using an explorative

descriptive design, researchers found that approximately 57,2% of pregnant women (n=180) had fear of childbirth, 17.8% intense fear and 6.1% very intense fear (Loureiro, 2013).

The perceptions and experiences of pregnancy and birth are influenced by the emotional and psychological well-being of the woman. The fear of childbirth, as mentioned previously, has a profound impact on women. Thus, to minimize its effects, it is important to consider early interventions involving childbirth education classes where nurses can address and calm a woman's fear in order to promote a more positive childbirth experience. This goal is only attainable if the childbirth levels of fear are identified and their main causes determined.

Therefore, was carry out a research with the following question: What are the levels of fear associated with childbirth by pregnant women and its causes?

An exploratory and descriptive study was conducted, with a convenience sample. Pregnant women in their second trimester of pregnancy were invited to participate. Inclusion criteria were women with 28 weeks' gestation or more, aged 20 years or older and able to give informed consent. Data collection was carried out in an outpatient obstetric hospital in the northern region of Portugal, between July 2010 and July 2012. To evaluate the intensity of childbirth fear, a visual analogic scale of 10 points was used. This unidimensional instrument consists of a line with the right and left borders numbered from 0 to 10, where 0 corresponds to "no fear", 1 to 3 "slight fear", 4 to 7 "moderate fear" and 8 to 10 means "intense fear". All pregnant women were asked to make a mark along the line representing the fear of childbirth currently being experienced. Interviews were also conducted to identify the causes of fear.

In order to understand if there was a relationship between the study variable and the sociodemographic variables, parametric and nonparametric statistics were used. For the analysis of qualitative data, the technique of Bardin content analysis was applied and for the analysis of quantitative data the Statistical Package for Social Sciences (SPSS), version 21 for Windows was used.

Ethics approval and informed consent were obtained.

The sample comprised 246 pregnant women, mostly Portuguese (n=237, 96.3%), aged between 20 and 41 years, mean 31.3 years (SD=4.4), and median and mode of 31 years. As for the level of education, 57.3% (n=141) of participants attended higher education, while 13.9% (n=34) completed basic education. Most of the women (72.0%, n=177) were married or cohabiting. Concerning labour, the majority of participants were primiparous women (77.2%, n=190).

### **3. Findings**

Regarding the levels of fear of childbirth, the majority (98%; n=241) of the pregnant women had fear of childbirth: 60.2% (n=148) of participants reported moderate fear, 28% (n=69) intense fear, 20% (n=46) slight fear and 2% (n=5) indicated no fear. The average was 6.00 (SD=2,2), mode =5.0 and median = 6.0.

According to the socio-demographic variables no association was found between childbirth fear and age, education level and marital status.

In order to evaluate if the fear of childbirth was related to parity, the Mann-Whitney test was performed. In the sample of 219 nulliparous women the average rank was 127.22, and in the sample of 27 multiparous women it reached 93.31. The difference between the average values was very

significant ( $U=2.141.50$ ,  $p=.018$ ), revealing that primiparous had more fear of childbirth than multiparous women.

An association was found between anxiety and the levels of fear of childbirth. Concerning the 202 women who reported being anxious, the average rank was 135.60, and 67.97 for the 44 women who did not mention being anxious. The difference between these average values was highly significant ( $U=6.887.50$ ,  $p=.000$ ), revealing that the pregnant women showing higher levels of anxiety were also the ones showing higher levels of childbirth fear.

Regarding the knowledge on labour and fear of childbirth, it was found that the 148 pregnant women who reported knowledge had an average rank of 114.42, and the 98 participants who considered having lack of knowledge had an average rank of 137.22. The difference between these values was very significant ( $U=8.596.50$ ,  $p=.013$ ), indicating that participants who referred not having knowledge on labour showed higher levels of fear of childbirth than those indicating knowledge.

The causes of fear associated with labour were described by participants, with a total of 95.5% ( $n=235$ ) responses. After the analysis of participants' statements, two main themes emerged: Causes of fear of childbirth related with the woman with two subcategories: Childbirth complications and Loss of control and Causes of fear of childbirth related with the fetus / newborn with two subcategories: Health and wellbeing (table 1).

**Table 1.** Causes of fear of childbirth.

Themes	Categories	Subcategories
Causes of fear of childbirth related with the woman	Childbirth Complications	Obstetric complications
		Injury
		Death
	Loss of control	Pain/suffering
		Not able to give birth
		Not knowing how to cope with the labour pain
Causes of fear of childbirth related with the fetus/newborn	Health	Baby with malformation/disease
	Well-being	Pain/suffering

### 3.1 Causes of fear of childbirth related with the woman

#### 3.1.1 Childbirth complications

*Obstetric complications.* Many participants mentioned being afraid of obstetric complications that could arise during labour. This fear was primarily associated to the haemorrhagic and thromboembolic risk, and prolonged labour, as explained by participants:

*(...) serious haemorrhages (E25); (...) having a thrombosis (E101); (...) a prolonged labour (E162); Obstetric complications during labour (...), haemorrhage (E229).*

*Injury.* The fear of childbirth for some pregnant women was related to the possibility of physical damage, such as the need for episiotomy, the fear of getting paraplegic and of lacerations:

*(...) the need for a perineal laceration (...)* (E29); *(...) of being unable to walk or move any part of the body* (E111); *(...) of suffering physical changes, as vaginal lacerations* (E231).

*Death.* Death was commonly referred to by participants. The possibility of not surviving labour and not getting the opportunity of seeing their child grow up, was also a predictor of fear:

*I'm afraid to die* (E63); *(...) not be able to see my child grow* (E193); *I'm afraid of dying during labour* (E197).

### 3.2.2 Loss of control

For many pregnant women, the possibility of losing control is the cause of increased childbirth fear. The loss of control may be triggered by:

*Pain/suffering.* Pregnant women refer to labour pain as a major cause of fear. Like suffering, the fear of labour pain is a strong predictor of loss of control.

*(...) to be completely overcome by pain* (E4); *I'm afraid of pain, of suffering* (E71);  
*(...) not being able to bear the pain* (E108).

*Not able to give birth.* A low self-efficacy increases fear of childbirth. The ability to successfully give birth is felt by participants as an important variable for maintaining self-control during labour.

*(...) of not being able to deliver my son* (E15); *(...) not being sufficiently prepared [to have a child], not being able to* (E142).

*Not knowing how to cope with the labour pain.* The fear of not knowing how to deal with the labour pain was mentioned by several participants.

*(...) not being able to bear the pain and to have a difficult delivery* (E13); *(...) not being able to bear the pain and help my child being born* (E84). *(...) not to cooperate as I'm supposed to, not knowing how to deal with the pain and panic* (E242).

## 3.2 Causes of fear of childbirth related with the fetus/newborn

### 3.2.1 Health

*Baby with malformation/disease.* A large number of participants mentioned in their statements that the fear of childbirth was related to potential malformations or diseases of the fetus.

*(...) that something could happen inside my belly, that he has a health problem, caused before or during labour* (E17); *(...) that he's not healthy, perfect (...)*. (E44); *(...) that he is born with cerebral palsy* (E213); *(...) that he's born with a disability, suffers from birth asphyxia* (E220).

### 3.3 Well-being

*Pain and suffering.* The well-being of the fetus/newborn is a major concern for pregnant women, who fear that childbirth will cause pain and suffering to their child. As expressed by some participants:

*(...) that he suffers before and during the expulsion.* (E91); *(...) that he is hurt or suffers some kind of fractures (...)* (E111).

#### **4. Conclusions**

These study findings provide a clear understanding about the fear of childbirth and its prevalence during pregnancy. This fear was found to be moderate by the majority of women and intense by approximately a third of the participants. These results were similar to the findings of Fenwick et al. (2009), concluding that 50% of women felt a moderate fear of childbirth, while 26% felt intense fear. Likewise, Loureiro's (2013) results showed that 57.2% of pregnant women are fearful of childbirth, 17.8% feared it intensely, and 6.1% very intensely. However, these results raise some concerns, since, as previously stated, the fear of childbirth can determine the postponement of pregnancy, influence the decision on a caesarean section delivery, and impact daily life activities.

It was also found that anxiety is associated with childbirth fear. This is shared by several other authors, specifically (Saisto et al., 2001; Zar et al., 2001; Johnson & Slade, 2002; Alipour, Lamyian, Hajizadeh, & Vafaei, 2011), who refer to the importance of childbirth education, training relaxation techniques, visiting a delivery room, and developing a childbirth plan as effective interventions to mitigate fear and anxiety.

According to some researchers, parity was statistically associated with the fear of childbirth (Johnson, & Slade, 2002; Rouhe et al., 2009; Spice, Jones, Hadjistavropoulos, Kowalyk, & Stewart, 2009; Toohill, Fenwick, Gamble, & Creedy, 2014). Nulliparous women had a higher mean of childbirth fear compared to multiparous women. The development transition, the uncertainty of birth and the lack of knowledge are more likely to determine higher levels of fear in women having their first baby. Other researchers reached different outcomes. Nieminen et al. (2009), Haines et al., (2011) and Loureiro (2013), found no difference between parity groups, whereas Zar et al. (2001) reported childbirth fear levels slightly higher in multiparous women.

Some of the main causes of fear reported by participants included complications during childbirth and loss of control, and these results are in line with findings by other researchers (Lyberg, & Severinsson, 2010; Salomonsson, Wijma, & Alehagen, 2010; Pereira, Franco, & Baldin, 2011; Haines et al., 2011). The health condition and well-being of the fetus/newborn also contribute to childbirth fear as also supported by other authors (Klein, Sakala, Davis-Floyd, & Rooks, 2006; Lyberg, & Severinsson, 2010; Salomonsson, et al., 2010; Pereira et al., 2011; Haines et al., 2011). In modern societies, women have little experience with natural childbirth, do not always have positive maternal role models, successful birth stories, and lack adequate social support, and education regarding the birth process. Some of these factors help explain these findings.

Because of the impact that childbirth fear has on women and families, it is important to minimize its potentially negative effects. The identification of pregnant women at risk, their levels childbirth fear, and main causes will likely allow for an early intervention, promoting a better pregnancy experience and a more satisfying childbirth. According to several authors (Saisto et al., 2001; Waldenstrom et al., 2006; Nilsson & Lundgren, 2009; Fenwick et al., 2013), targeted interventions can include education regarding routine labour procedures, sharing experiences, and addressing feelings and beliefs. However, Portugal does not yet have a specific intervention plan targeted at pregnant women experiencing intense childbirth fear. Hence, this study highlights the importance of developing research that supports the planning and assessment of these types of programmes.

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