Women and Birth xxx (2017) xxx–xxx

Contents lists available at ScienceDirect

Women and Birth

journal homepage: www.elsevier.com/locate/wombi

Original Research - Quantitative

The predictive role of support in the birth experience: A longitudinal cohort study

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ARTICLE INFO

Article history:
Received 5 December 2016
Accepted 10 April 2017
Available online xxx

Keywords:
Childbirth
Negative birth experience
Predictors
Support
Midwifery

ABSTRACT

Background: Several risk factors for negative birth experience have been identified, but little is known regarding the influence of social and midwifery support on the birth experience over time.
Objective: The aim of this study was to describe women's birth experience up to two years after birth and to detect the predictive role of satisfaction with social and midwifery support in the birth experience.
Method: A longitudinal cohort study was conducted with a convenience sample of pregnant women from 26 community health care centres. Data was gathered using questionnaires at 11–16 weeks of pregnancy (T1, $n = 1111$), at five to six months (T2, $n = 765$), and at 18–24 months after birth (T3, $n = 657$). Data about sociodemographic factors, reproductive history, birth outcomes, social and midwifery support, depressive symptoms, and birth experience were collected. The predictive role of midwifery support in the birth experience was examined using binary logistic regression.
Results: The prevalence of negative birth experience was 5% at T2 and 5.7% at T3. Women who were not satisfied with midwifery support during pregnancy and birth were more likely to have negative birth experience at T2 than women who were satisfied with midwifery support. Operative birth, perception of prolonged birth and being a student predicted negative birth experience at both T2 and T3.
Conclusions: Perception of negative birth experience was relatively consistent during the study period and the role of support from midwives during pregnancy and birth had a significant impact on women's perception of birth experience.

Statement of significance

Problem or issue

Evidence of the effects of social and midwifery support on the birth experience is inconsistent. Little is known about how negative birth experience develops over time.

What is already known

Negative birth experience affects the well-being of women and newborns. Prevalence, several risk factors, and consequences of negative birth experience have been identified.

What this paper adds

The perception of negative birth experience is relatively consistent from six months to two years after birth. Support from midwives during pregnancy and birth has an impact on women's birth experience.

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http://dx.doi.org/10.1016/j.wombi.2017.04.003
1871-5192/

1. Introduction

Negative birth experience has been one of the major issues in childbirth research for the last decades in developed countries. Between 7–35% of women perceive their birth as a negative experience.[1–3] The wide range in prevalence has been explained by the timing of the postpartum assessment[3] and by the variance in the definitions and measures used, in which the terms 'negative birth' and 'traumatic birth' are applied interchangeably as these have similar risk factors[3,4] despite different ways of measurements.

The consequences of a negative birth experience have been identified as affecting women's psychological wellbeing, parent–infant bonding,[5] the relationship between mother, baby and partner[6] and future family planning.[7] Former studies indicate an increase in psychological trauma in women reporting a negative birth experience, with 1–6% of these women developing posttraumatic stress disorder (PTSD) related to childbirth.[8,9] Previous studies also indicate a higher risk of developing fear of childbirth and an increased preference for elective caesarean section in these women.[10,11] Risk factors for a negative birth experience are multifaceted and associations have been found between negative birth experience and instrumental or caesarean births,[1,3,12] intrapartum complications,[1] maternal complications or hospitalisation in pregnancy[13] and prolonged labour.[13,14] Furthermore, fear of childbirth,[2,12] prior negative birth experience,[12] feelings of not being in control, and powerlessness during birth[1] have been associated with negative birth experiences as well as history of mental health problems.[4,6,15]

The role of support in the birth experience has been explored to some extent with inconsistent results. The sources of support can be from within the individual's support network or from the professional community, with the latter being provided by healthcare professionals or by the healthcare or community systems.[16] Social support has been defined as the exchange of resources between at least two individuals, the provider and the recipient with four main domains—emotional, instrumental, appraisal and informational support[17] and can be characterized by kinship, friendship, reciprocity and congruent expectations.[16] Some studies have shown a correlation between negative birth experience and low levels of social support during pregnancy,[1] birth[18,19] and of the postpartum period[20] but this has yet to be confirmed in other studies.[14,15,21] Conversely, higher levels of support from family or friends may reduce a woman's negative experience of birth (e.g., in terms of the fear she experiences around the event), although this correlation has yet to be explored further.[22] Different quantitative measurements of social support have been used and the components of social support are defined in only half of the above studies.[15,19–21]

Professional support is more formal and is based on role expectations in which, unlike in social support, reciprocity is not required.[16] As the main providers in maternity care and as stated in the International Confederation of Midwives' (ICM) definition of the midwife, midwives are required to provide professional support in pregnancy, during birth, and in the postnatal period.[23] Although the effects of perceived professional support during birth have been given some research attention in the past decades, the results are inconsistent with some studies showing a lack of support from midwives or caregivers during birth to be associated with negative birth experience[1] but others are not confirming this relationship.[14] In addition to lack of support, lack of communication or care from caregivers seems to affect women's birth experience.[1,3,24] No studies were found that explored the relationship between midwifery support during pregnancy and the birth experience; however, an association between insufficient time for questions during antenatal appointments and negative birth experience was found.[1]

In summary, while considerable knowledge of the prevalence, predictors and consequences of negative birth experience in developed countries exists, less is known about whether the perception of the birth experience changes over longer periods of time and whether social or midwifery support plays a predictive role in the experience of birth. The study aim, therefore, is to explore perceptions of the birth experience five to six months and 18–24 months after birth and to detect the predictive role of satisfaction with social and midwifery support in the birth experience.

2. Methods

2.1. Setting and design

This study is a part of the national prospective cohort Childbirth and Health Study in Iceland, which has been described in greater detail elsewhere[25,26] and we refer to previous work regarding the data in this paper. Midwives introduced the study to women in their first antenatal visit with both written and oral information about the purpose of the study and of their right to withdraw their participation at any time. Those who agreed to participate answered three self-reported questionnaires, the first around week 16 of pregnancy (T1), the second at five to six months after birth (T2), and the third at 18–24 months (T3) after birth. One reminder was sent to all participants. The data were collected from February 2009 to October 2011.

Iceland has approximately 325,000 residents, 70% of whom live in the capital area; the remaining 30% live in rural areas. The country's average annual birth rate is between 4200–4500 per year and a low perinatal mortality rates of 2.0–4.5 per 1000 births in the years 2010–2014. The caesarean rate has been steady at around 15–17% in the period 2006–2016.[27] The Icelandic health care system, like the health care system of other Nordic countries, provides childbirth care mostly free of charge. Traditionally, nearly all routine antenatal and postnatal care is provided by midwives, and all births are attended by midwives. Approximately 70% of the births take place at university hospital in the capital of Reykjavik, around 2% are home births but the remaining births take place at nine birth centres in the rural areas of Iceland.[27] A trend of centralising childbirth services has occurred in Iceland with consequent closures of maternity wards in remote places.

Family relations can be assumed to be quite close as a result of the small size of the island, especially in comparison to many other Western countries where large geographical distances can affect support access from relatives.

2.2. Sample

The data were obtained from pregnant women aged 18 or older who considered themselves to be of low risk and who attended antenatal care at 26 primary health care centres. The response rate at T1 was 63% ($n = 1.111$), at T2 69% ($n = 765$), and at T3 59% ($n = 657$). The mean age at T1 was 29.4 years (± 5.1) and the majority of the women were married or cohabiting and had a college or university degree education. Approximately 98% of the women had Icelandic as a native language and around two thirds lived in the capital area. The sample represented the characteristics of the population in terms of age, marital status, residency, parity, and birth outcomes during the study period.[25]

2.3. Measures

The three questionnaires used in the study are based on the Swedish KUB study.[28] Translation, pretesting and adaptation for use in Iceland by the Childbirth and Health Study Group have been described elsewhere.[26]

The first questionnaire (T1) included questions about socio-demographic background, prior birth experience and thoughts about the impending birth. At T2 and T3 women were asked about their birth experience. Furthermore, questions about birth outcomes and

Please cite this article in press as: V.L. Sigurdardottir, et al., The predictive role of support in the birth experience: A longitudinal cohort study, Women Birth (2017), http://dx.doi.org/10.1016/j.wombi.2017.04.003