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Post-Traumatic Stress Disorder after childbirth and the influence of maternity team care during labour and birth: A cohort study

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ABSTRACT

Objective: we examined the prevalence of Post-Traumatic Stress Disorder (PTSD) and the role of personal and obstetric risk factors, as well as the role of midwifery team care factors in a cohort of Flemish women.
Design: prospective cohort study. Data collection was performed at two times post partum: During the first week, socio-demographic and obstetric data as well as information related to midwifery team care factors were assessed using self-report measures. To asses PTSD symptomatology, the Impact of Event Scale-Revised (IES-R) and the Traumatic Event Scale (TES) were used. At six weeks post partum, PTSD symptoms were reassessed either by telephone interviews or e-mail. Results were calculated in frequencies, means and standard deviations. Differences between week one and six were analysed using parametrical and non-parametrical statistics. Multiple and logistic regression was performed to determine risk factors for PTSD symptomatology. *P*-value was set at 0.05.
Setting: maternity wards in Flanders, Belgium.
Participants: the first (week 1) and follow-up (week 6) sample of the data collection consisted of 340 and 229 women respectively.
Results: the prevalence of PTSD symptoms after childbirth ranged from 22% to 24% in the first week and from 13% to 20% at six weeks follow-up. Multiple regression analysis showed that Islamic belief, a traumatic childbirth experience, family income $<$€2500, a history of psychological or psychiatric consults and labour/birth with complications significantly predicted PTSD symptomatology at six weeks post-birth. Midwifery team care and the opportunity to ask questions, as well as experiencing a normal physiological birth were significantly associated with less postnatal PTSD symptoms.
Key conclusions and implications for practise: the results of this study suggest that contextual factors such as religion, socio-economic status, and childbirth experience might be important factors to address by the midwifery team. Midwifery team care factors such as 'providing the opportunity to the mother to ask questions' and the 'perception of the midwife being in control' proved to be potential protective factors for postnatal PTSD symptoms. Despite its prevalence, PTSD symptoms after birth are not yet well understood by health care workers. Further research concerning the influence of midwifery team care factors on developing childbirth related PTSD is required.

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Introduction

Pregnancy and childbirth are often not normal physiological processes with an increasing number of women having fertility treatment and delivering by caesarean section. These circumstances might have a significant social and emotional impact on the life of the mother and those surrounding her (e.g. partner, family) (Fisher et al., 2006). Therefore, for some women it can be a potentially traumatic experience, resulting in post-traumatic stress symptoms in the aftermath of childbirth (Olde et al., 2006). Post-Traumatic Stress Disorder (PTSD) is an anxiety disorder that may develop after exposure to a potentially traumatic event, with typical symptoms including the reliving of the traumatic event through flashbacks and nightmares, as well as avoidant responses, increased arousal, fear and problems concentrating (American Psychiatric Association, 1994; Olde et al., 2006; Nyberg et al., 2010). In their review on post-traumatic stress following childbirth, Olde et al. (2006) reported 24–34% of women showing symptoms of PTSD and 2.8–5.6% develops PTSD six weeks after childbirth (Olde et al., 2006; Nyberg et al., 2010). Yet, research concerning birth related PTSD is still sparse.

The existing literature refers to the following risk factors to develop PTSD (symptoms) after childbirth: psychiatric history, lower socio-economic status, obstetric interventions and negative relations with health care staff (Olde et al., 2006; Verreault et al., 2012). In addition, Tham et al. (2010) suggest that normal birth itself might also be experienced as traumatic and result in Post-Traumatic Stress Disorder symptomatology (Tham et al., 2010). However, most of the studied risk factors in the context of birth related PTSD refer to the women's biopsychosocial history or are related to obstetrical factors. Other context related factors that might contribute to the development of PTSD, like the form of care provided by the midwifery team, have not yet been studied. Importantly, such factors, in contrast to personal and obstetrical factors, have the potential to be influenced by health care workers and can thus be used in the prevention of childbirth-related PTSD symptoms. In fact, when post partum PTSD symptoms are not detected and adequately cared for, chronic psychological problems and future obstetric complications in following pregnancies like fetal growth retardation and preterm labour can occur (Seng et al., 2001).

Although the symptoms of PTSD might be observed by health care providers during the immediate aftermath of a birth, knowledge and tools to approach and prevent these sequelae are currently lacking. Because in the context of PTSD, interventions aimed at primary and secondary prevention are deemed necessary, research on midwifery team care related factors in the context of childbirth related PTSD is needed.

As such, the main focus of the present study was to examine the potential role of midwifery team care factors during labour and childbirth. The study aim was twofold: First, to determine the prevalence of childbirth-related PTSD in a Flemish population, and second to study the influence of personal, socio-demographical (e.g. age, socio-economic status, education, religion, …) and obstetric (e.g. way of birth, epidural analgesia, experience of labour and birth, …) risk factors as well as factors related to midwifery team care (e.g. midwifery team being in control, information provided to the mother, …) on the development of childbirth related PTSD.

Methods

Participants

Women were recruited (January–June 2013) from 13 different maternity wards during the first week (day 1 to day 4 post partum) after childbirth. Exclusion criteria were age below 18, non-Dutch speaking, still birth, intrapartum psychosis, or preterm birth before 24 weeks gestation. All eligible women were informed that this study would investigate postnatal emotions at two times post partum (week 1 and week 6). Hereafter, they were invited by the principal investigators to participate in the first phase of the study. An incentive (a baby products gift: lotion, baby soap and baby shampoo in a bag) was used to increase the response rate. The study was approved by the ethics Committee of the Antwerp University Hospital (registration number B300201215285).

Measures

A first questionnaire based on a literature review, contained questions regarding personal and socio-demographical (e.g. age, marital status, education, religion, family income), medical and obstetric factors (e.g. history of psychological or psychiatric consultations, history of abortion, history of miscarriage, history of stillbirth, concerning the present pregnancy and birth: episiotomy, way of birth, complications during pregnancy, pain control, fear, experience of labour and birth) and information on the midwifery team care as experienced and perceived by the mother. The latter questionnaire contained questions on the women's perception of the admission process, level of information they received, possibility to ask questions, level of trust in the health care team, perception of support, reassurance, respect of the team, care of the midwife and obstetrician, participation in the birth process, locus of control and the perception of the health care team being in control of the situation. Women responded using a Likert type scale ranging from one (completely disagree) to 10 (completely agree). In addition, their perception towards the level of support by their obstetrician and the number of midwives that supported them throughout the process of labour and birth was also assessed. Before the study commenced, the questionnaire was evaluated by an expert panel consisting of an obstetrician, midwifery line manager and an experienced midwife with a master's degree. Cronbach's alpha of 0.90 was obtained for the questions about the midwifery team care factors. In addition to this self-developed questionnaire, women also completed two well validated PTSD questionnaires: the Impact of Event Scale-Revised (IES-R) and the Traumatic Event Scale (TES). Both scales are based on the DSM-IV criteria for PTSD (American Psychiatric Association, 1994). The continuous scale IES-R (Horowitz et al., 1979; The Hartford Institute for Geriatric Nursing and College of Nursing, N.Y.U. College of Nursing, 2008; Wijma et al., 1997) consists of 22 statements concerning three groups of symptoms: reliving, avoidance and arousal. All items are scored on a scale ranging from 0 (totally not) to four (very strong). A total score can be calculated, ranging from 0 to 88 with a cut-off point of 24 indicating clinically significant PTSD symptoms (Asukai et al., 2002). The IES-R is a well validated scale with proven reliability. The discontinuous TES (Wijma et al., 1997; Stramrood et al., 2010) also takes into account the level of stress, duration and the consequences of the PTSD symptoms. Respondents who met all the criteria or who scored above the cut-off, represented the prevalence of PTSD.

Procedure

During their first days at the maternity ward, women were informed by the principal investigators that the study investigated postnatal emotions and possible influencing factors. After their consent, women were asked to complete the three questionnaires. At day 4 when they were discharged from the hospital, they could return the questionnaires using a sealed envelope to guarantee confidentiality. Six weeks after childbirth, the women were contacted again by the principal investigators via telephone or e-mail and the IES-R and TES were administered for the second time.

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