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Fear during labor: the impact of sexual abuse in adult life

MALIN EBERHARD-GRAN¹, KARI SLINNING¹, & ANNE ESKILD^{1,2}

¹Division of Mental Health, Norwegian Institute of Public Health, Oslo, and Health Services Research Centre, Akershus University Hospital, Norway and ²Department of Gynecology and Obstetrics, Akershus University Hospital, Norway

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Abstract

Our aim was to study the occurrence of extreme fear during labor and its association with previous sexual abuse in adult life. All postpartum women ($n = 414$) in two municipalities in Norway participated in a questionnaire study. Self-reported fear during labor was categorized as “no fear/some fear/extreme fear”. Sexual abuse was measured by the Abuse Assessment Screen (AAS). Three percent of the women reported extreme fear during labor, 13% some fear and 84% no fear. In total, 12% had been sexually abused as an adult. Among the women with extreme fear during labor, however, one third had a history of sexual abuse in adult life (crude odds ratio 3.7; 95% CI: 1.0–3.7). When controlling for depression in pregnancy, duration of labor and mode of delivery, the adjusted odds ratio for extreme fear during labor was 4.9 (95% CI: 1.2–19.1). The results suggest that women with a history of sexual abuse in adult life have an increased risk of extreme fear during labor.

Keywords: Fear, labor, spouse abuse, postpartum

Introduction

Some women express extreme fear or even panic during labor. Intense fear during pregnancy and labor may be accompanied by increased output of stress hormones [1] and abnormal blood flow in the uterine arteries [2], which have been associated with adverse obstetric outcome [3]. There is a rapidly emerging literature on fear of childbirth. Most researchers, however, have studied fear prior to labor and the impact on obstetric outcome [4–6]. Studies about fear during labor are few [7]. Furthermore, few have studied factors associated with fear of child birth [8,9]. The occurrence and risk factors of fear during labor have not, to our knowledge, previously been reported.

The causes of extreme fear during labor probably include both biological and psychological factors. Prior traumatic events may have deleterious effects on well-being. It has been described that women with a history of sexual abuse have an aversion to routine obstetric care [10]. Hence, it is possible that experiences related to sexual abuse may be reactivated during a vaginal delivery. Exposure to sexual abuse in childhood has been associated with fear for the upcoming labor and birth [11]. However, the relationship between sexual abuse in adult life and

emotional distress during labor remains to be elucidated.

We wanted to study the occurrence of extreme fear during labor and its association with sexual abuse in adult life.

Methods

Study design and recruitment

All postnatal women residing in two communities in Norway (northeast of Oslo) were invited to participate when visiting the community-based child health clinics six weeks postpartum [12]. Questionnaires were completed at home and returned by mail to the study administration during 1998–1999. During the study period 485 women gave birth to a live born child (14 gave birth to twins) in the two communities, of whom 481 came to the child health clinic. Of these 14 were not included (six did not understand Norwegian, two < 18 years and six mistakenly not receive the questionnaire). A total of 414 (86% of all eligible women) returned the questionnaire. Their mean age was 30.0 years (range 18–45 years). Forty-eight percent were less than 30 years old and 42%

were primiparous. The non-responders ($n = 37$) did not differ in mean age or parity from the responders.

Variables

The question on fear was: “How would you grade your fear during labor?” (no fear/a little/quite a bit/extreme fear). In the analyses this variable was categorized: no fear/some fear/extreme fear. Main explanatory factor was sexual abuse in adult life. The question on sexual abuse was adapted from the Abuse Assessment Screen [13]: “Have you ever, as an adult, been coerced (yes/no) or forced (yes/no) into sexual activities?”. Other explanatory factors were: depression during pregnancy, duration of labor (< 12 or ≥ 12 hours), mode of delivery (vaginal delivery/vaginal delivery with extra strain/cesarean section). Vaginal delivery with extra strain was defined as twin delivery, breech presentation or assistance by vacuum or forceps. Information on depression during pregnancy was measured by the Lifetime Major Depression Scale by Kendler [14] and was defined as having had a depression during the index pregnancy. Age (< 30 or > 30 years) and parity (para 1 or para > 1) were included as potentially confounding variables.

Statistical methods

The impact of sexual abuse in adult life on “some fear” or “extreme fear” were estimated as crude and adjusted odds ratios with 95% confidence intervals by logistic regression analyses. SPSS 14.0 for Windows was used for all statistical analyses.

Ethics

The study was approved by the Norwegian Data Inspectorate and the Regional Committee for Ethics in Medical Research.

Results

Three percent (12/414) of the women reported “extreme fear” during labor, 13% “some fear” and 84% “no fear”. Twelve percent (51/410) had been exposed to sexual abuse as an adult. Of the women with extreme fear during labor, one third (4/12) reported sexual abuse in adult life. Among women with a history of sexual abuse, the crude odds ratio was 1.9 (95% confidence interval (CI) 1.0–3.7) for reporting some fear during labor and 3.7 (95% CI: 1.1–12.9) for reporting extreme fear (Table I). In univariate analyses, depression during pregnancy, long duration of labor and vaginal delivery with strain were associated with extreme fear, however not with some fear (Table I). Age and parity were not associated with fear and therefore not included in the table.

Multivariate analyses

The adjusted odds ratio for extreme fear during labor was 4.9 (95% CI: 1.2–19.1) for sexual abuse in adult life. Depression during pregnancy (odds ratio 11.9; 95% CI 2.7–53.0) and vaginal delivery with extra strain (odds ratio 7.1; 95% CI 1.6–31.0) had the strongest impact on extreme fear during labor.

Table I. Crude and adjusted odds ratio with 95% confidence intervals (CI) for “some fear” or “extreme fear” during labor, among 414 postpartum women.

	Crude odds ratio (95% CI)		Adjusted odds ratio (95% CI)	
	Some fear	Extreme fear	Some fear	Extreme fear
Sexual abuse in adult life				
No ($n = 359$)	1.0	1.0	1.0	1.0
Yes ($n = 51$)	1.9 (1.0–3.7)*	3.7 (1.1–12.9)*	1.7 (0.8–3.8)	4.9 (1.2–19.1)**
Depression during pregnancy				
No ($n = 393$)	1.0	1.0	1.0	1.0
Yes ($n = 21$)	1.5 (0.5–4.9)	11.3 (3.1–41.3)*	2.0 (0.6–6.6)	11.9 (2.7–53.0)*
Duration of labor				
1–12 hours ($n = 325$)	1.0	1.0	1.0	1.0
12 hours or more ($n = 70$)	0.9 (0.4–1.9)	3.5 (1.1–11.4)*	0.8 (0.4–1.8)	2.4 (0.7–9.0)
Mode of delivery				
Vaginal delivery ($n = 322$)	1.0	1.0	1.0	1.0
Vaginal delivery with strain ¹ ($n = 40$)	1.3 (0.5–3.3)	5.9 (1.6–21.7)*	1.3 (0.5–3.4)	7.1 (1.6–31.0)**
Cesarean section ($n = 46$)	5.4 (2.7–10.7)***	2.4 (0.5–12.2)	4.6 (2.1–9.8)***	5.5 (0.9–32.3)

¹Twin delivery, vacuum/forceps delivery or breech presentation.

Age ($< 30, \geq 30$ years) and parity (para 1, para > 1) were included in the multivariate logistic regression analyses, but were not significantly associated with extreme fear during labor and therefore not presented in the table.

Significance level (* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$).

A long duration of labor (≥ 12 hours) was not significantly associated with extreme fear in the multivariate analyses (Table I). The associations between the explanatory variables were, in general, stronger for “extreme fear” during labor than for “some fear”.

Discussion

Among 414 postpartum women, 3% reported extreme fear during labor. A history of sexual abuse in adult life was associated with extreme fear during labor. Depression during pregnancy, however, had strongest impact on fear during labor. Also vaginal delivery with strain had an independent impact on extreme fear during labor.

Sexual abuse has been associated with a number of mental health problems [15], such as depression, post-traumatic stress disorder, anxiety, insomnia, and social dysfunction. However, a relationship between sexual abuse in adult life and fear during labor is, to our knowledge, a new observation.

We acknowledge some limitations. First, we did not use a validated measurement for fear. There is currently no gold standard measurement of fear during labor, but the Wijma Delivery Expectancy/Experience Questionnaire (W-DEQ) including 33 items, has shown good psychometric properties [16]. However, we wanted to use a brief measure requiring little space in the questionnaire.

Our data is collected six weeks postpartum. The ability to recall fear during labor may have been influenced by several factors, such as current depression. However, when controlling for postpartum depression, obtained by the Edinburgh Postnatal Depression Scale [17], the impact of a history of sexual abuse on extreme fear during labor remained unchanged in the multivariate model (adjusted odds ratio 4.8; 95% CI 1.1–19.8).

The number of women included in our study was limited ($n = 414$) and the confidence intervals around the odds ratio estimates were wide. Accordingly, a rather low statistical power permits only detection of substantial differences between the different categories. Despite the small sample size and control of several potential confounders, a history of sexual abuse in adult life was significantly associated with extreme fear during labor. The stronger association between sexual abuse and “extreme fear” during labor than on “some fear” further supports a causal relationship.

In conclusion, our results indicate that women with a history of sexual abuse in adult life have an increased risk of extreme fear during labor. These findings suggest that experiences related to sexual abuse may be reactivated and affect labor. Policies to identify and support pregnant women with a history of sexual abuse and/or symptoms of anxiety and

depression may be useful [18]. These women may also need extra care in the postnatal period in order to prevent symptoms of post-traumatic stress [19,20]. However, further research is required to confirm our results.

Declaration of interest: The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the paper.

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360 **Current knowledge on the subject**

- Intense fear during pregnancy may affect obstetric outcome. 420
- Little is known about the causes of intense fear during labor.
- It has been described that women with a history of sexual abuse have an aversion to routine obstetric care. 425

370 **What this study adds**

- A history of sexual abuse in adult life was associated with increased risk of extreme fear during labor. 430

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