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**Post-traumatic stress in couples after birth:
Association with the couple's relationship and parent-baby bond**

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Key words: birth, post-traumatic stress disorder, relationship, mother-baby bond

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ABSTRACT

Research suggests a proportion of women develop post-traumatic stress disorder (PTSD) after childbirth. However, the effects of postnatal PTSD on the couple's relationship and parent-baby bond have not been examined. In this study, 64 couples completed questionnaires about birth, symptoms of PTSD, the couple's relationship and parent-baby bond nine weeks after childbirth. Results showed 5% of men and women had severe symptoms of PTSD. Symptoms were significantly associated within couples, and were related to similar birth factors for men and women. PTSD symptoms were not associated with the parent-baby bond or couple's relationship. The mother-baby bond was not associated with any variables measured. The father-baby bond was associated with the couple's relationship.

INTRODUCTION

Research has established that between 1% and 9% of women have PTSD after birth (Ayers, 2004) and a proportion of men may also be affected (Skari et al., 2002). The effect of postnatal PTSD on the mother-infant bond and couple's relationship has been substantiated by case studies and qualitative research (Nicholls & Ayers, in press) but has not been examined quantitatively. This study therefore aimed to examine (i) what proportion of men have severe symptoms of PTSD after birth; (ii) the effect of postnatal PTSD on the parent-baby bond; (iii) the effect of postnatal PTSD on the couple's relationship; and (iv) what birth factors are associated with PTSD in men and women.

METHOD

Design

Postal questionnaire survey of PTSD symptoms, the couple's relationship, and parent-baby bond nine weeks after birth (mean 9.41 weeks, SD 2.06).

Sample

Sixty-four couples were drawn from 207 eligible couples that had a baby at a London hospital during one month. Inclusion criteria were that couples were in a relationship together and the man attended birth. Couples were excluded if their baby was stillborn or transferred to the neonatal unit. Both members of each couple completed the questionnaires.

Participants mean age was 32.4 years (SD = 5.87); 72% were married; 66% were Caucasian. 70% of women had a normal delivery, 14% assisted delivery, 13% emergency caesarean, 3% elective caesarean; 11% had complications of delivery, and 25% had complications with the baby during delivery. Responders did not differ from non-responders on obstetric variables.

Measures

PTSD symptoms (intrusions and avoidance) were measured using the Impact of Events Scale (Horowitz et al., 1979). Scores of >19 are classified as severe symptoms, giving a sensitivity of .94 and a specificity of .33. Experience of birth was measured using the Experience of

Birth Scale (Slade et al., 1993). Parent-infant attachment was measured using the Bethlehem Mother-Infant-Interaction Scale with the wording changed to be non-gender specific. Higher scores indicate a poorer parent-baby bond (Pearce & Ayers, 2005). Couple's relationship was measured using the Dyadic Adjustment Scale (Spanier, 1976).

RESULTS

Five percent of men and women had severe symptoms of PTSD after birth. This comprised two couples where both members had severe symptoms, and two couples where one member had severe symptoms. Overall, men and women did not differ significantly on symptoms of intrusions and avoidance. However, women reported a better parent-baby bond, fewer positive emotions during birth, more support in birth, and more self-blame for things that went wrong during birth. Within couples, symptoms of intrusions and avoidance were significantly associated.

PTSD symptoms were not associated with the couple's relationship or the parent-baby bond. For men, the only median correlation above 0.2 was between the couple's relationship and the father-baby bond (0.26). For women, the only median correlation above 0.2 was between the birth experience and symptoms of PTSD (0.23). Multiple regressions found intrusions and avoidance in men and women were most consistently predicted by reports of something going wrong during birth, delivery problems, and emotions during birth ($R^2 = .19$ to $.41$, $p < .01$).

- Insert Table 1 about here -

DISCUSSION

Results are inconsistent with previous findings that more women than men have PTSD after birth and other traumatic events. The lack of effect of postnatal PTSD on the parent-baby bond and couple's relationship also contradicts previous research. One explanation is that interference with the couple's relationship and parent-baby bond is not general to all psychopathology but specific to depression. Alternatively, the effect of PTSD on relationships may not be apparent nine weeks after birth. Similarly, effects on the couple's relationship might only be detected when examining *change* in the relationship compared to

before birth. Finally, the measure of parent-baby bond used in this study focused on behavioral aspects of the parent-baby bond, rather than emotional aspects, so could have measured 'care of the baby' rather than emotional bond.

In conclusion, this research suggests postnatal PTSD symptoms are not related to the parent-baby bond or couple's relationship. However, further research should examine the long-term impact of PTSD on change in couples' relationships and emotional attachment to the baby.

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Table 1. Mean scores (columns 1 & 2), correlations between men and women (column 4), and correlations between items for men (upper triangle) and women (lower triangle)

	1	2	3	4	<u>PTSD</u>		<u>Bond</u>		<u>Birth Experience</u>										<u>Relationship</u>			
	Women	Men	Wilcoxon z value (p)	P	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. Intrusions	6.58	5.48	1.02 (.31)	.37		.69	.14	.17	.34	.01	.13	.10	.13	.30	-.15	-.17	-.15	-.04	.19	-.02	.07	.19
2. Avoidance	3.97	3.41	0.82 (.41)	.50	.52		.23	-.13	.33	-.09	-.08	.31	.17	.36	.03	.04	-.15	-.18	.13	.08	.06	.14
3. Parent-baby bond	9.43	10.83	2.69 (.007)	.19	.00	.09		-.08	.18	-.01	.04	-.10	-.09	-.11	.01	.28	.17	.07	.26	.19	.49	.01
4. Positive emotions in birth	28.95	35.44	3.49 (<.001)	.41	.18	-.21	-.04		-.23	.53	.48	.56	-.22	-.14	-.24	-.11	.40	.43	.24	.13	.30	.31
5. Negative emotions in birth	23.31	21.09	0.78 (.43)	.10	.27	.41	-.14	.33		.35	.29	.47	.48	.41	.28	.50	.34	.16	.08	-.12	-.02	-.02
6. Control in birth	42.03	43.93	0.81 (.42)	.37	.06	-.06	.02	.45	.37		.54	.43	.32	.04	.46	.15	.52	.22	.20	.16	.12	.06
7. Support in birth	16.32	13.40	3.78 (<.001)	.24	-.01	.24	.00	.27	-.09	.05		-.29	.57	.36	.23	.18	.40	.35	.04	.17	.18	.08
8. Birth worse than expected	4.87	5.32	1.21 (.23)	.48	.22	.37	.07	-.38	.52	.36	.11		.35	.42	.15	.43	.23	.27	.03	-.06	.23	.07
9. Life threat	2.64	2.80	0.62 (.54)	.30	.30	.39	-.19	.05	.48	-.21	.25	.28		.54	.34	.13	.26	.25	.03	-.28	.03	.01
10. Something going wrong	2.80	2.72	0.21 (.84)	.69	.37	.51	-.03	.18	.54	-.21	.34	.49	.83		.13	.40	.07	.24	.07	.12	.06	.00
11. Self-blame	3.20	0.85	2.88 (.004)	-.20	.39	.42	.16	.12	.31	.07	.14	.04	.14	.44		.04	.50	.46	.08	.46	.30	.05
12. Other-blame	5.15	4.35	1.16 (.25)	.62	.07	.35	.31	.04	.33	.16	-.03	.28	.18	.39	.28		.06	-.01	.06	.07	.20	.09
13. Satisfaction	7.77	8.31	1.14 (.25)	-.01	.08	-.12	.20	.25	.36	-.21	.05	.21	.15	.25	.13	.22		.51	.11	.15	.26	.03
14. satisfaction with partner's coping	8.95	9.13	0.48 (.70)	.16	.10	-.12	.06	.13	-.16	.11	.37	-.02	-.24	.34	.10	.52	.47		.16	.28	.41	.07
15. Relationship consensus	51.45	49.19	1.68 (.09)	.56	-.16	.30	.17	.13	-.11	.16	.36	.04	-.08	-.21	.02	-.07	.24	.33		.30	.43	.49
16. Relationship satisfaction	40.11	41.01	1.74 (.08)	.62	-.08	-.24	.04	.29	-.13	.10	.41	-.01	-.04	.15	.52	-.01	.06	.32	.56		.41	.19
17. Relationship cohesion	16.00	16.69	1.81 (.07)	.62	.01	.01	.07	.06	.08	.05	.05	.12	.09	.01	.39	.56	.01	.27	.48	.31		.30
18. Relationship affection	9.19	8.71	1.25 (.21)	.48	-.02	-.15	.08	.09	-.02	.12	.39	.05	-.21	-.29	.10	.02	.12	.34	.55	.58		.29

N=59 to 64 men, and 60 to 64 women; except q11 and q12 which are based on the 25 women and 24 men who allocated blame for events during birth.

All correlations above .30 (Cohen's medium *r*) are in **bold** and are significant at the 5% level (except for those involving q11 and q12 which need to be above about *r* = .40 to be significant at 5%). All correlations above .50 (Cohen's large *r*) are also underlined.