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**PTSD SYMPTOMS AFTER THE DELIVERY IN WOMEN WHO
DELIVERED ALONE OR ACCOMPANIED BY THEIR PARTNERS¹**

INTRODUCTION

Childbirth is an event that can be analysed in the framework of an autobiographical memory as it is defined by T. Maruszewski (2000). Firstly, because it is experienced by an individual – a woman and also by her partner, if he is present. Secondly, because it is organized within a sequence of other events, such as meeting a partner, getting pregnant, continuing the pregnancy until its end and delivering the baby. The sequence is always established and the order of the events is clear and definite. Thirdly, because it is well placed in the time frame – it is always a precise date when such an event as a birth of one's child takes place. And finally, because a birth of one's child has a meaning for a person concerned. It might be an important event, it might be painful, it might be magnificent, it might be the most important event in life or the most stressful experience, etc. It is a person who has an attitude toward this event, has memories related to it and can recall that event in more or less details. Research into autobiographical memory, for instance, has revealed that events associated with less positive emotions are forgotten more often and usually recalled in less details (Maruszewski, 2000).

Recently childbirth started to become conceptualised as a traumatic event. The core concept in this approach to labour and delivery is the control over the course of events and also the emotional reaction to birth. According to S. Allen (1998) a woman feels not in control in three situations related to

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labour. The first one is the extreme pain she can't handle, the second are signals that something might be wrong with the baby, and the third are intrusive memories from her previous, usually negative, birth experience. When the feeling of not being in control emerges a woman tries to regain control by using her own resources (for example relaxation and breath techniques, constructive thinking) or by looking for emotional and practical support from others. If she can't get necessary support her feeling of not being in control is reinforced. Such feeling increases and the situation is perceived as more and more unpredictable, dangerous and threatening. These are included in the definition of a traumatic event as proposed in DSM-IV (Bryant, Harvey, 2003; Dudek, 2003). Therefore it is often considered that a childbirth, especially the difficult and complicated one, can become very traumatic and result in the development of posttraumatic stress disorder (PTSD). It is worth to remind the reader that PTSD is diagnosed when the following groups of symptoms are present: 1) the re-experience of traumatic events in the form of intrusive memories, nightmares and distress when a person is exposed to stimuli or situations similar to the event; 2) the avoidance of stimuli connected with the trauma; 3) the high level of arousal reflected in sleep disturbances, poor concentration and high vigilance (Dudek, 2003).

The posttraumatic stress disorder and PTSD symptoms have been recognised in a number of women some time after the delivery. The percentage of those with PTSD symptoms varies from study to study. For instance, J. Menage (1993) has found in her sample of 500 postpartum women a group of 30 (6%) who expressed the PTSD symptoms (in this study DSM-III-R criteria were used). All have experienced an obstetric procedure regarded by them as "very distressing" or even "terrifying". In later studies PTSD symptoms were detected in 9.5% (Lyons, 1998), 13.7% (Allen, 1998), and 5.6% of women (Creedy et al., 2000). In very recent study J. E. Soet et al. (2003) found that 34% of the sample of 103 postpartum women considered their childbirth experience as traumatic. Two (1.9%) have developed all the symptoms needed to diagnose PTSD, and 31 (30.1%) women were partially symptomatic. It was found that the birth was considered traumatic when women experienced intense pain, felt powerless and when medical intervention was performed on them. This last finding confirms results of the earlier studies (Mclean et al., 2000; Menage, 1993). Postnatal PTSD symptoms were predicted by the pain experienced during the birth, level of social support, trait anxiety and coping (Soet et al., 2003).

In recent review of studies on post-traumatic stress following childbirth D. Bailham and S. Joseph (2003) pointed to several factors that might

be linked to the development of PTSD symptoms. The authors have classified them into two categories. The first category comprises delivery experience factors, such as the type of delivery (i.e. emergency caesarean section, instrumental delivery), fear of losing a baby and perception of control (i.e. those who had little control, were less supported by a partner and/or medical staff and were less informed were more likely to develop PTSD symptoms). The second category includes personality and prior vulnerability factors. Among them the most significantly related to PTSD are pre-existing traumatic life events, trait anxiety, history of receiving psychiatric treatment or psychological counselling, negative attitudes towards childbirth, lack of support during labour and after the delivery. Other authors include in the list of predisposing factors also the poor relationship with a woman's partner (Saisto, Halmesmaki, 2003). According to findings from several studies women with PTSD after childbirth experience difficulty breastfeeding and express attachment difficulties (Bailham, Joseph, 2003). Those with traumatic experiences might develop the fear of childbirth and request either the termination if they accidentally conceived (Bailham, Joseph, 2003) or a planned caesarean section (Ludwig, Loeffler, 2001; Saisto, Halmesmaki, 2003; Sjorgen, 1998).

Both theoretical analyses (Allen, 1998) and empirical studies (Bailham, Joseph, 2003; Saisto, Halmesmaki, 2003; Soet et al., 2003) pointed to the role of support from a birth companion as a buffer against a birth becoming traumatic. Taking into account the concepts discussed above we could conceptualise the role of a birth companion, namely a child's father who is present at the delivery. First of all a partner is the source of practical support for a delivering woman. The partner can help in changing the position, can offer the massage, can help to control breathing and can also communicate with the staff expressing a woman's wishes and provide information the staff is asking for. The partner is also a valuable source of emotional support – he encourages the woman, talks to her, and accompanies her in an environment she is not familiar with. The partner is also a source of information – he tells the delivering woman what is going on the ward, answers her questions, describes what she can't see etc. After the delivery he can also discuss with her the whole event, comment on her own and other persons' behaviour and thus help her to remember details and to develop an attitude toward the childbirth.

Therefore we hypothesized that a presence of a birth companion, who for a delivering woman is a source of emotional and practical support, might change a woman's perception of control over the course of labour. His presence helps to feel more comfortable and more in control and thus prevents labour to be perceived as a traumatic experience. We assumed this

to be the case also in non-complicated childbirth. So women who delivered with their husbands being present should develop less symptoms that resemble PTSD symptoms. By using the phrase ‘‘PTSD symptoms’’ we mean the similarity and not the actual diagnosis of PTSD. We also hypothesized that a woman’s coping style might be an important factor in shaping reactions towards childbirth and thus preventing development of PTSD symptoms. In previous Polish studies labour and delivery was analysed from the point of view of emotional reactions while in the labour ward and women’s attitudes (e.g. Kořcielska, 1998). To our knowledge our study is the first attempt to link the childbirth with PTSD symptoms.

METHOD

Procedure and subjects

Women were recruited in the out-patients clinics for children when they came with their healthy infants for a check-up. They were asked to participate in the study on birth experiences and memories. The outline of the study was explained and the questionnaires were handed to women who gave their consent to participate. Out of 95 persons approached 73 matched all the inclusion criteria (e.g. singleton birth, uncomplicated pregnancy, marriage/stable relationship with a child’s father, vaginal delivery 2 to 6 months ago), and 3 women returned incomplete questionnaires. Thus the final sample consisted of 70 women. The age range of participants was 18–36 with the mean of 25.9 years ($SD = 3.9$). There were 49 primiparas and 21 multiparas in the sample. Half of the participants delivered accompanied by their partners. These women did not differ from the rest of the group in terms of education, financial status, the duration of marriage/relationship and parity.

Measures

Demographic questionnaire was designed for this study. This tool collected information on age, duration of marriage, education, financial status, participation in childbirth classes, obstetric history and type of delivery.

Symptoms questionnaire was designed to measure the PTSD symptoms after delivery (Szembek, 2002). It consists of 15 items evaluated on a 4-points rating scale from 1 (never) to 4 (often) that enables respondents to describe how often the particular symptom is experienced. Thus the total score ranges from 15 to 60 points. Phrases related to childbirth were used

in all items (i.e. “I try to avoid places associated with the childbirth (e.g. hospitals)”, “I try to avoid thoughts about labour and delivery”, “I have nightmares related to childbirth”). The factor analysis (principal components, Varimax rotation) revealed 3 factors that explained 61.5% of the variance. The items were grouped according to the 3 categories of PTSD symptoms – Arousal (4 items), Avoidance (8 items) and Re-experience (3 items), what resulted in 3 subscales of the questionnaire. Internal consistency of the scale is acceptable – Cronbach a coefficient is 0.85. In the analyses reported here both total score and the scores for each subscale were used.

Coping Inventory for Stressful Situations (CISS) questionnaire by N. S. Endler and D. A. Parker in the Polish version by P. Szczępaniak et al. (1996) was used. The questionnaire has very sound psychometric parameters and allows to assess the coping style. Three scales measure the task-oriented, emotions-oriented and avoidance-oriented coping. This last scale includes 2 subscales: avoidance through social contacts and avoidance through distraction. In the study presented here these two types of avoidance were not distinguished and one score for the avoidance-oriented coping was used.

Analyses

In statistical analyses *t*-test and Pearson correlation coefficients (*r*) were used. All the differences or coefficients were considered significant when *p* was at least 0.05.

RESULTS

The descriptive statistics such as mean, standard deviation, median and range, for all the measures administered in the study are given in Tab. 1.

A series of analyses was performed on the data. First we looked at the differences between PTSD symptoms scores calculated for primiparas and multiparas. As the figures given in Tab. 2 indicate those who delivered their first child scored similarly to women who delivered their subsequent baby on all PTSD scales except the Arousal scale. For this scale scores for multiparas are significantly higher ($p < 0,05$) what indicates more prevalent symptoms of arousal and anxiety that were not experienced before the birth. However, these might be linked to more stress related to additional duties involved in looking after more than one child. We also found that symptoms scores were not significantly correlated with age on neither of the scales.

Table 1

Descriptive statistics for *Symptoms questionnaire* and *Coping Inventory...* – mean (*M*), standard deviations (*SD*), median (*Me*) and range

	<i>M</i>	<i>SD</i>	<i>Me</i>	Range
PTSD total score	24.5	7.2	23	16–50
PTSD Arousal	6.5	3.3	5	4–15
PTSD Avoidance	12.4	5.2	11	7–31
PTSD Re-experience	5.7	2.3	5	3–11
CISS – task-oriented coping	48.7	13.5	48	25–72
CISS – emotions-oriented coping	33.4	12.4	30	18–69
CISS – avoidance-oriented coping	18.2	5.7	17	7–41

Table 2

Symptoms questionnaire mean scores and standard deviation (in brackets) for the primiparous and multiparous women

	Primiparas	Multiparas	<i>t</i>	<i>p</i>
PTSD total score	23.9 (7.2)	26.0 (6.9)	-1.165	0.248
PTSD Arousal	5.9 (2.9)	7.6 (3.7)	-2.057	0.043
PTSD Avoidance	12.0 (5.3)	13.3 (4.9)	-0.949	0.346
PTSD Re-experience	5.9 (2.3)	5.2 (2.0)	1.248	0.216

The scores for women who delivered alone or with their partners are given in Tab. 3. Those who delivered alone (group I) scored significantly higher on Arousal and Avoidance scales. They had also higher PTSD total scores. Thus, this group of women more often expressed symptoms than those who at the childbirth were accompanied by their partners.

Table 3

Symptoms questionnaire mean scores and standard deviation (in brackets) for the groups of women who delivered alone or accompanied by their partners

	Women who delivered alone	Women accompanied by partners	<i>t</i>	<i>p</i>
PTSD total score	26.7 (7.9)	22.3 (2.7)	2.704	0.008
PTSD Arousal	7.2 (3.8)	5.7 (2.4)	2.001	0.049
PTSD Avoidance	14.0 (5.7)	10.8 (4.1)	2.677	0.009
PTSD Re-experience	5.6 (2.1)	5.2 (2.4)	0.572	0.569

A number of women from the sample participated in childbirth classes. Such classes are helpful in providing knowledge about labour and techniques to deal with pain. Those who participated in classes delivered both alone and with the partner. Two-way ANOVA was performed to look at the effect of childbirth classes and the presence of a partner on symptoms scores. Neither the main effect of childbirth classes ($F(1,68) = 1.503$) nor the interaction effect of classes and the presence of the partner ($F(1,68) = 0.071$) was significant.

As can be seen from Pearson's correlation coefficients presented in Tab. 4 women with task-oriented coping express less symptoms. That concerns PTSD total score, Arousal, and Avoidance scales scores. Other coping styles were not related to symptoms.

Table 4

Symptoms questionnaire and Coping Inventory..., Pearson's correlation coefficients (r)

	CISS – task-oriented coping	CISS – emotions-oriented coping	CISS – avoidance-oriented coping
PTSD total score	-0.543*	0.014	0.181
PTSD Arousal	-0.464*	-0.160	0.231
PTSD Avoidance	-0.389*	0.142	0.073
PTSD Re-experience	-0.108	-0.107	0.061

* $p = 0.01$.

DISCUSSION

The main aim of the study was to look at longer term effects of the presence of a birth companion and not to diagnose posttraumatic stress disorder in childbearing women. Therefore we decided to include in the sample only women who went through relatively uncomplicated pregnancy and delivery, and medical procedures such as forceps delivery or emergency caesarean section were not performed on them. At least from this perspective their childbirth experience was not traumatic. Half of the women were accompanied by their partners in the labour ward, while others delivered alone. That created different situation for both groups of women. To look at the effects of these two different situations was the focus of our study. Plausibly a birth companion was a source of emotional and practical support during labour and delivery and helped a woman to feel in control over the whole event, and also to feel more comfortable and secure. If that was true then those who delivered alone should express more signs of past negative

or quasi-traumatic experiences, namely posttraumatic-like symptoms. Therefore we used the *Symptoms questionnaire* to examine the expression of such symptoms.

Our data confirmed these assumptions. The findings indicate that women who have delivered a baby without a partner being present, express more PTSD symptoms after the birth of their child. Such finding would suggest that for these women the birth experience provoked some negative reactions, that otherwise might have been prevented by the partner's support during labour. Our results are in line with findings presented by J. Czarnocka and P. Slade (2000), who also pointed to a significant role of support from a partner that decreased posttraumatic symptoms following childbirth. According to theoretical analyses provided by S. Allen (1998) previous birth experiences together with concurrent events might play a crucial role in the development of traumatic experience. In our study, however, the scores for primiparas and multiparas were not significantly different for most of the symptoms' measures. That indicates that the previous birth experience might be less important than other factors. The same holds true for preparation for labour. Neither the main effect nor the interaction effect of childbirth classes on symptoms' scores was detected.

Our data indicate also a preventive role of a coping style – those less susceptible to adverse effect of labour are women with task-oriented coping. These women expressed less intense symptoms after the birth, what is comparable with results received by J. E. Soet et al. (2003). In their study women with less traumatic symptoms received significantly higher scores for coping. It is worth to note, however, that these authors do not use *Coping Inventory...* to measure coping and therefore no comparison of coping styles can be made. Our finding related to task-oriented coping corresponds with results of studies on posttraumatic stress disorder after such traumatic events as floods or other disasters. Persons with task-oriented coping usually reveal less intense symptoms, while those with emotions-oriented coping reveal much intense symptoms (Strelau et al., 2004). In our study emotions-oriented coping was not related to PTSD symptoms, but task-oriented coping correlated significantly with symptoms' scores, and what is more, the correlation was in the expected direction. According to some authors coping should be regarded a predictor and not an effect of symptoms after traumatic experiences (Soet et al., 2003; Strelau et al., 2004). That might explain why in our study task-oriented coping emerged as a variable negatively correlated with symptoms. It seems plausible that women with this coping style approached childbirth differently. They might have been more concentrated on the course of labour, activities to be performed, and advices given by the staff. They might have learned a lot about labour beforehand from books and medical consultations. If so, for this women

labour becomes more controlled and predictable, and thus less frightening. M. Kościelska (1998) distinguishes such approach to labour and names it “task-oriented labour”.

The results presented here should be interpreted with caution, mostly due to the characteristics of the sample. Our participants were not randomly selected. The presence of the partner at birth was also not randomised. Thus we can't ignore the effects of pre-existing factors that might have changed the response to birth experience, such as an attitude towards childbirth and the idea of a joint delivery as the best solution for a woman. The cross-sectional design of the study has its own disadvantages. We can't comment, for instance on fear of labour that might have affect the perception of labour and the symptoms afterwards.

We included in the sample only women after vaginal delivery. Although we have found in them symptoms that resemble PTSD symptoms we can't conclude that for these women the delivery was a trauma. We can conclude, however, that the normal delivery has different effects when a woman is accompanied by her partner. If a woman has a chance to deliver with her partner she is probably less afraid beforehand, feels in control over the event and has positive memories from it. These might be important arguments for those who still do not accept that the presence of the child's father at the delivery is beneficial.

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OBJAWY PTSD PO PORODZIE – PORÓWNANIE KOBIEŃ RODZĄCYCH SAMOTNIE I W TOWARZYSTWIE PARTNERA

Poród jest przez rosnącą liczbę badaczy traktowany jako doświadczenie traumatyczne. Najważniejszym elementem koncepcji porodu jako wydarzenia traumatycznego jest poczucie kontroli nad przebiegiem wydarzeń i związane z nimi reakcje emocjonalne występujące u kobiet. Towarzyszący rodzącej partner jest źródłem emocjonalnego i praktycznego wsparcia, a jego obecność może zmienić sposób, w jaki kobieta spostrzega poród i swoją nad nim kontrolę, a tym samym zmniejszyć ryzyko pojawienia się po porodzie objawów przypominających objawy zaburzenia po stresie traumatycznym (PTSD). W badaniu uczestniczyło 70 kobiet, z których połowa rodziła w towarzystwie partnera. Zastosowano *Kwestionariusz objawów* uwzględniający 3 grupy objawów typowych dla PTSD (unikanie sytuacji przypominających o urazie, pobudzenie, odtwarzanie stresującej sytuacji), a także *Inwentarz radzenia sobie w sytuacjach stresowych (CISS)* do pomiaru stylu radzenia sobie. Kobiety rodzące samotnie uzyskiwały istotnie wyższe wyniki w zakresie unikania i pobudzenia. Ich ogólny wynik w *Kwestionariuszu objawów* był również istotnie wyższy. Natężenie objawów PTSD było związane ze stylem radzenia sobie ze stresem – badane ujawniające styl skoncentrowany na zadaniu uzyskiwały niższe wyniki w *Kwestionariuszu objawów*, co świadczy o mniej intensywnych objawach. Wyniki wskazują również, że ani uczestniczenie w zajęciach szkoły rodzenia, ani uprzednie doświadczenia położnicze nie modyfikowały natężenia objawów.

Słowa kluczowe: objawy PTSD, poród, radzenie sobie.