

ORIGINAL ARTICLE / PRACA ORYGINALNA

Marzena Kaźmierczak¹, Aleksander Araszkiwicz², Grażyna Gebuza¹, Estera Mieczkowska¹,
Małgorzata Gierszewska¹, Roman Kotzbach³

PSYCHOSOCIAL DETERMINANTS OF POSTPARTUM DEPRESSION**PSYCHOSPOŁECZNE DETERMINANTY DEPRESJI POPORODOWEJ**

¹Laboratory of Fundamentals in Obstetric Care, Faculty of Health Sciences CM NCU

Head: Małgorzata Gierszewska, M.D.

Marzena Kaźmierczak, D.H.Sc

Grażyna Gebuza, D.H.Sc

Estera Mieczkowska, MSc.

²Department of Psychiatry, Faculty of Medicine CM NCU

Head: Professor A. Araszkiwicz, M.D., Ph.D.

³ Department of Obstetric Nursing, Faculty of Health Sciences CM NCU

Head of the Department of Nursing and Midwifery: Assoc. prof. Roman Kotzbach, M.D., Ph.D.

S u m m a r y

Objective. To evaluate the severity of postpartum depression for maternity cases in the first week after childbirth, and to establish the impact of the psychosocial factors on the occurrence of postnatal depression.

Background. The study involved 285 women, who gave birth at the University Hospital No. 2 in Bydgoszcz.

Methods. The study used the Edinburgh Postnatal Depression Scale (EPDS), original questionnaire and medical records.

Results. In the first week after the birth, 66 parturients received score ≥ 12 points on the EPDS, which is 23.2%. The average level of postpartum depression was significantly higher in the group of women who had experienced stressful life events during pregnancy. The presence of relatives during childbirth significantly reduced the level of postpartum depression. The dependent correlation was obtained between the memory of labor as a "traumatic experience", and the incidence of postpartum depression. In a sample of women who developed the

postpartum depression, the percentage of anxiety cases due to motherhood was significantly higher. The dependent correlation was found between mental disorders occurring before pregnancy and the incidents of postnatal depression. In the group of women with postpartum depression, the percent of cases of mental illnesses in the family was significantly higher. There is a connection between an unfavorable economic situation of women and the occurrence of PPD.

Conclusions. The prevalence of postpartum depression in first week after childbirth was estimated at 23.2%. Psychosocial determinants of postpartum depression include stressful life events during pregnancy, childbirth without the presence of relatives, the negative memory of labor, anxiety due to motherhood, the incidence of mental illness before pregnancy, family history of mental disorders and the unfavorable economic situation. There was no association between the lack of social support and the incidence of postpartum depression.

S t r e s z c z e n i e

Cel pracy. Ocena nasilenia objawów depresji poporodowej u położnic w 1 tygodniu po porodzie oraz ustalenie związku czynników psychospołecznych z jej wystąpieniem.

Materiał. W badaniu wzięło udział 285 kobiet, które urodziły w Szpitalu Uniwersyteckim nr 2 w Bydgoszczy.

Metody. W badaniu wykorzystano Edynburską Skalę Depresji Poporodowej (EPDS), kwestionariusz ankiety własnej konstrukcji oraz dokumentację medyczną.

Wyniki. W 1 tygodniu po porodzie wynik ≥ 12 punktów w skali EPDS uzyskało 66 położnic, co stanowi 23,2%. Średni poziom depresji poporodowej był istotnie wyższy w grupie kobiet, u których wystąpiły stresujące wydarzenia życiowe w ciąży. Obecność osób bliskich przy porodzie istotnie obniżył poziom depresji poporodowej. Uzyskano zależność korelacyjną między wspomnieniem porodu, jako „traumatyczne przeżycie” a wystąpieniem depresji poporodowej. W próbie kobiet, u których występowała depresja poporodowa, procent przypadków niepokoju odczuwanego z powodu macierzyństwa był istotnie większy. Stwierdzono zależność korelacyjną między zaburzeniami psychicznymi występującymi przed ciążą a

zachorowaniem na depresję poporodową. W grupie kobiet, u których występowała depresja poporodowa procent przypadków chorób psychicznych w rodzinie był istotnie większy. Istnieje związek między niekorzystną sytuacją ekonomiczną kobiet a wystąpieniem DP.

Wnioski Częstość występowania depresji poporodowej w 1 tygodniu po porodzie oszacowano na 23,2%. Psychospołeczne determinanty depresji poporodowej to: stresujące wydarzenia życiowe w ciąży, poród bez obecności osób bliskich, negatywne wspomnienie porodu, niepokój z powodu macierzyństwa, występowanie chorób psychicznych przed ciążą, rodzinna historia zaburzeń psychicznych oraz niekorzystna sytuacja ekonomiczna. Nie stwierdzono związku między brakiem wsparcia społecznego a wystąpieniem depresji poporodowej.

Key words: puerperium, postpartum depression, The Edinburgh Postnatal Depression Scale

Słowa kluczowe: połóg, depresja poporodowa, Edynburska Skala Depresji Poporodowej

Abbreviations

DSM-IV - Diagnostic and Statistical Manual of Mental Disorders

PPD – postpartum depression

EPDS – Edinburgh Postnatal Depression Scale

ICD-10 – International Statistical Classification of Diseases and Related Health Problems

PP – postpartum psychosis

DSM-IV – Diagnostic and Statistical Manual of Mental Health Disorders

Skróty

DP – depresja poporodowa

EPDS – Edinburgh Postnatal Depression Scale

ICD-10 – International Statistical Classification of Diseases and Related Health Problems

PP – psychoza poporodowa

INTRODUCTION

Pregnancy and childbirth have a significant psychobiological impact on the body and mind of a woman. One of the most common complications of postnatal period is the occurrence of a mental disorder episode. This period may favor the emergence of new disturbances, severity or recurrence of pre-existing disorders. Until now no conclusive factors were identified as to the incidence of mental disorders after the puerperium.

In ancient times emotional disorders of postnatal period were already studied by Hippocrates, who associated the puerperal fever with endogenous secretions reaching the brain and causing anxiety, delirium and mania attacks [1].

A comprehensive review of the literature devoted to depression, childbirth and postpartum period was published in the 80s of the 20th century by Hopkins,

Marcus and Campbell. After a critical analysis of 110 research works, they identified three clinical forms of depression, such as postpartum sadness, postpartum depressive psychosis and depressive symptoms of varying degree (from mild or moderate to severe depression)[2].

The postnatal sadness or "baby blues" is a set of mild mood disorders occurring from 3 to 14 days after the birth. The origins of the "baby blues" is not known. However, since the occurrence of postpartum despondency is a risk factor for developing postpartum depression or postpartum anxiety disorders, the legitimacy of treating these symptoms as the physiological phenomenon is questionable [3]. The symptoms of the "baby blues" include moderate low mood, emotional lability, tearfulness, tension, irritability, excessive sensitivity to stimuli, hypochondriacal attitude, attention deficit disorder, headache, loss of appetite, feelings of hostility towards relatives [3, 4, 5, 6]. Sleep disturbances and a sense of exhaustion by Reck et al. [7] are excluded from the list of symptoms of the "baby blues" because they are treated as common problems experienced by the majority of women after delivery. "Baby blues" concerns 50-85% of women [8].

The second type of disorder is postpartum psychosis (PP) occurring with a frequency of 0.1-0.2%. The clinical picture of psychosis is often atypical and includes the characteristics of the depression of endogenous type and paranoid or catatonic groups [8]. The postpartum psychosis develops rapidly and its early symptoms include insomnia, or even a lack of sleep for the next few days, inability to feel hungry, agitation, irritability, dysphoria, the avoidance of

contacts with a child, inaction on taking care of a child [9]. Psychotic symptoms most commonly take the form of delusions and hallucinations related to the child or childbirth [10]. Postpartum psychosis is more common after giving birth to the first child, among single mothers, after a cesarean section, if bipolar disorder or schizophrenic psychosis was previously diagnosed. Another risk factor for PP seems to be a close kinship with a person suffering from psychosis [11, 12].

The third type of affective disorders is observed in 10-20% of women after childbirth [13,14]. These are the depressive symptoms of varying degree which meet the diagnostic criteria for "big" or "small" depression [8] and appear in four (according to DSM-IV) and six (according to ICD-10 system) weeks after the parturition. Symptoms of postpartum depression include crying, a sense of hopelessness, guilt, anhedonia, psychomotor agitation or inhibition, impairment of concentration and memory, avoidance of social contact, a sense of low attractiveness, the difficulty in showing positive emotions to family and friends, "theatrical" way of expressing complaints on the "unbearable" sadness, depression or exhaustion [3]. Women suffering from postpartum depression often experience cognitive dissonance between the joy of having a new child and an inability to enjoy it [15]. They perceive the child as an extremely troublesome and exaggerate minor problems. They may be indifferent to the needs of the infant as a result of difficulties in reading and understanding the signals sent by the child [16].

In research studies on postpartum depression one can normally find the classification of factors which contribute to the occurrence of depressed mood in women after childbirth. Among the important socio-demographic variables are most frequently age, low socio-economic status and single motherhood [17,18].

The obstetric-gynecological factors closely related to the situation of pregnancy, childbirth and the postpartum period, most often include negative experiences of the previous childbirth, premature birth, hospitalization during pregnancy, cesarean section performed urgently, suspected fetal distress [3,19 20].

Psychosocial factors constitute the largest group of risk factors for postpartum depression (PPD). Stressful life events, even the positive ones, during pregnancy and after childbirth represent a very important risk factor for depressive disorders [21]. A very important aspect is the social support offering both emotional, instrumental and informative aid as well as the ability

to profit from this support, or a lack thereof. Particularly important and desirable source of support is the closest family, but also the medical personnel [1]. Postpartum depression is more common in women who do not receive support from the partner [22, 23], family of origin and friends [23]. One of the most important factors that significantly affect the incidence of postpartum depression is stress experienced during pregnancy [24]. Other agents that may in various ways facilitate the development of postpartum depression are undoubtedly personality disorders, anxiety and obsessive-compulsive disorders, addiction to drugs, propensity to self-destructive behavior [6,25]. The risk group includes also women with the previous history of affective disorders [17] and the genetic burden of mental illness in the family [26].

OBJECTIVE

The aim of this study was to assess the severity of maternal postpartum depression in the first week after the childbirth, and to establish the relationship between psychosocial factors and the occurrence of postnatal depression.

BACKGROUND

The study involved 285 women who gave birth in the Department of Obstetrics, Gynecology and Gynecologic Oncology at the University Hospital No. 2 in Bydgoszcz. The study was conducted in 2010-2011 after obtaining the approval of the Bioethics Committee. The selection of respondents was intentional, and the participation in the study was voluntary. The parturients consented in writing to participate in the study.

METHODS

The study used the Edinburgh Postnatal Depression Scale (EPDS), original questionnaire and medical records. The study group consisted of women in childbirth on the second day after vaginal delivery and the third day after a cesarean section.

The Edinburgh Postnatal Depression Scale was developed by John L. Cox, Jennifer M. Holden and Ruth Sagovsky in 1987, in Livingston and Edinburgh. It is a self-assessment questionnaire designed to detect depressive symptoms. The scale consists of 10 short questions, which women answer on their own by

choosing one of the possible answers characterizing best their feelings in the last 7 days. The score above 9 points on the EPDS suggests, according to the authors, 'possible depression'. By obtaining a score threshold (12, 13 points of 30 possible) women 'probably' suffer from depressive disorders of varying severity [27]. However, it should be borne in mind that a high score is not a diagnosis of depression, as the final diagnosis depends on medical examination.

In this study, it was assumed that independent variables (psychosocial factors) that affect the dependent variable (postpartum depression) are as follows: unfavorable economic conditions, negative life events during pregnancy, the presence of a close relative during labor, social support, the memory of puerperium, anxiety due to motherhood, family history of mental illness and the presence of psychiatric disorders before pregnancy.

The study analysis was conducted using the features of Microsoft Office Excel 2000, and a package of applications for statistical calculations, STATISTICA v.10. Parametric and non-parametric tests of significance were applied in order to verify the hypotheses. Level of significance $p = 0.05$ was adopted as reliable for verifying hypotheses. Critical values were given for this level.

RESULTS

The age of women in sample was between 15-39 years, with an average of 29 years (28.55) and $SD = 4.81$. Nearly three quarters of women worked professionally. On average, one in four women in childbirth (23.6%) was unemployed. Every tenth respondent admitted that she had financial problems, at the same time the vast majority of women in childbirth (90%) identified their economic situation as at least satisfactory. Out of the 285 surveyed respondents, the majority was of higher (44.6%) and secondary education (36.1%). A small minority were women with primary (6.3%) and vocational education (13%). The vast majority of women was married (75.1%). The questionnaire data show that 23.5% of women have experienced negative life events during pregnancy (death of a close relative). As many as 119 women (43%) mentioned birth as "traumatic". A slight majority of respondents (64.6%) gave birth in the presence of a close relative. The parturient was accompanied most frequently during the labour by a husband, partner, mother, sister or a friend. 26.7% of

women felt anxiety about their motherhood, Almost 90% of women received support from their relatives. While giving medical history, it was revealed by 6.7% of respondents that they had suffered from a mental disorder before pregnancy. The survey data indicate that mental illness in the family occurred in 4.6% of the sample of women.

In the study, the score ≥ 12 points on the 30-point EPDS was regarded as indicating postpartum depression. The dependent variable (postpartum depression) was measured on average on the 3rd day postpartum ($SD=1,339$). The analysis of research data shows that the average value obtained with the EPDS was 8.15 with $SD = 5.357$, the median score was 8. The minimum score of the examined sample was 0 and the maximum was 24. In the first week postpartum, 66 parturients received ≥ 12 points on the EPDS, which represents 23.2%. Further analysis was focused on establishing the relationship between psychosocial factors and the occurrence of postpartum depression. The average levels of postpartum depression were compared according to the occurrence of stressful life events during the pregnancy. It was concluded that the average level of postpartum depression was significantly higher in the group of women who had experienced negative life events during pregnancy ($p < 0.04$) (table I). The statistical analysis results prove that the presence of relatives during childbirth significantly reduces the level of post-natal depression – the average level of postpartum depression was significantly higher among women giving birth alone ($p < 0.03$) (table II). Furthermore, it could be stated that at the significance level close to 0.05, women who received social support were less frequently subject to postpartum depression (table III).

Table I. Average values of postpartum depression levels, depending on the occurrence of negative life events in pregnancy

Tabela I. Średnie wartości poziomów depresji poporodowej w zależności od wystąpienia negatywnych wydarzeń życiowych w ciąży

Postpartum depression level Poziom depresji poporodowej	Parameters Parametry	Negative life events Negatywne wydarzenia życiowe	
		Yes Tak	No Nie
	<i>n</i>	67	218
	min.	0	0
	max	24	24
	average	9.40	7.76
	<i>SD</i>	5.82	5.16
Test z ($z_{kr}=1.96$)	<i>z</i>	2.07	
	<i>p</i>	<0.04	

Table II. Average values of postpartum depression levels, depending on the presence of relatives during childbirth

Tabela II. Średnie wartości poziomów depresji poporodowej w zależności od obecności osób bliskich podczas porodu

Postpartum depression level Poziom depresji poporodowej	Parameters Parametry	Presence of relatives during childbirth Obecność osób bliskich podczas porodu	
		Yes Tak	No Nie
	<i>n</i>	184	101
	min.	0	0
	max	21	24
	average	7.67	9.02
	<i>SD</i>	5.30	5.38
Test z ($z_{kr}=1.96$)	z	2.18	
	p	0.03	

Table III. Establishing the relationship between the lack of social support and the results obtained on the EPDS

Tabela III. Ustalenie zależności między brakiem wsparcia społecznego a wynikami uzyskanymi w skali EPDS

		Social support Wsparcie społeczne		Total Razem
		Yes Tak	Sometimes Czasami	
Postpartum depression Depresja poporodowa	No Nie	194 (90.2%)	21 (9.8%)	215 (100%)
	Yes Tak	52 (81.3%)	12 (18.8%)	64 (100%)
Total Razem		246	33	279
Test χ^2 ($\chi^2_{kr}=3.84$)	χ^2	3.82		
	p	>0.05 (ns)		

The memories of the birth can be so dramatic for some women that it can lead to the development of *post-traumatic stress disorder*. When asked in the questionnaire, "How do you currently look back on your labor?", 119 respondents (41.7%) said that it was a "traumatic experience." Correlative dependence was found between the memories of the birth as "traumatic experience" and the occurrence of the postpartum depression ($p < 0.02$) (table IV).

It was also established that in a sample of women who developed postpartum depression, the percentage of anxiety cases due to the motherhood was significantly higher ($p < 0.0008$) (table V). Statistical analysis results showed the correlative dependency between mental disorders occurring before pregnancy and incidents of post-natal depression ($p < 0.0001$) (table VI). Moreover, it was demonstrated that in the

group of women with postpartum depression the percentage of cases of mental illness in the family was significantly higher ($p < 0.008$) (table VII).

10.2% of women identified their economic situation as unfavorable. A relationship between financial problems and the prevalence of postpartum depression was established ($p < 0.02$) (table VIII).

Table IV. Establishing the relationship between the memory of parturition and the results obtained on the EPDS

Tabela IV. Ustalenie związku między wspomnieniem porodu a wynikami uzyskanymi w skali EPDS

		Positive memory of parturition Pozytywne wspomnienie porodu		Total Razem	Test for 2 fractions Test dla 2 frakcji ($u_{kr}=1.96$)	
		yes	no		u	p
Postpartum depression Depresja poporodowa	No Nie	130 (61.0%)	83 (39.0%)	213 (100%)	2.44	<0.02
	Yes Tak	28 (43.8%)	36 (56.3%)	64 (100%)		
Total Razem		158	119	277		
Test χ^2 ($\chi^2_{kr}=3.84$)	χ^2	6.00				
	p	<0.02				

Table V. Establishing the relationship between the anxiety due to motherhood and the results obtained on the EPDS

Tabela V. Ustalenie zależności między niepokojem odczuwanym z powodu macierzyństwa a wynikami uzyskanymi w skali EPDS

		Anxiety due to motherhood Niepokój z powodu macierzyństwa		Total Razem	Test for 2 fractions Test dla 2 frakcji ($u_{kr}=1.96$)	
		Yes Tak	No Nie		u	p
Postpartum depression Depresja poporodowa	no	50 (22.8%)	169 (77.2%)	219 (100%)	3.29	0.001
	yes	29 (43.9%)	37 (56.1%)	66 (100%)		
Total Razem		79	206	285		
Test χ^2 ($\chi^2_{kr}=3.84$)	χ^2	11.3				
	p	<0.0008				

Table VI. *Establishing the relationship between mental disorders before pregnancy and the results obtained on the EPDS*

Tabela VI. *Ustalenie zależności między zaburzeniami psychicznymi przed ciążą a wynikami uzyskanymi w skali EPDS*

		Mental disorders in an interview Zaburzenia psychiczne w wywiadzie		Total Razem	Test for 2 fractions Test dla 2 frakcji ($u_{kr}=1.96$)	
		yes	no		<i>u</i>	<i>p</i>
Postpartum depression Depresja poporodowa	No Nie	6 (2.7%)	213 (97.3%)	219 (100%)	4.18	<0.0001
	Yes Tak	13 (19.7%)	53 (80.3%)	66 (100%)		
Total Razem		19	266	285		
Test χ^2 ($\chi^2_{kr}=3.84$)		χ^2		23.4		
		<i>p</i>		<0.0001		

Table VII. *Establishing the relationship between family history of mental illness and the results obtained on the EPDS*

Tabela VII. *Ustalenie zależności między rodzinną historią chorób psychicznych a wynikami uzyskanymi w skali EPDS*

		Mental illness in the family Choroby psychiczne w rodzinie		Total Razem	Test for 2 fractions Test dla 2 frakcji ($u_{kr}=1.96$)	
		Yes Tak	No Nie		<i>u</i>	<i>p</i>
Postpartum depression Depresja poporodowa	no	6 (2.8%)	212 (97.2%)	218 (100%)	2.51	0.012
	yes	7 (10.6%)	59 (89.4%)	66 (100%)		
Total Razem		13	271	284		
Test χ^2 ($\chi^2_{kr}=3.84$)		χ^2		7.15		
		<i>p</i>		<0.008		

Table VIII. *Establishing the relationship between financial situation and the results obtained on the EPDS*

Tabela VIII. *Ustalenie związku między sytuacją materialną a wynikami uzyskanymi w skali EPDS*

		Financial problems Kłopoty finansowe		Total Razem	Test for 2 fractions Test dla 2 frakcji ($u_{kr}=1.96$)	
		yes	no		<i>u</i>	<i>p</i>
Postpartum depression	no	17 (7.8%)	202 (92.2%)	219 (100%)	2.35	0.02
	yes	12 (18.2%)	54 (81.8%)	66 (100%)		
Total Razem		29	256	285		
Test χ^2 ($\chi^2_{kr}=3.84$)		χ^2		6.02		
		<i>p</i>		<0.02		

DISCUSSION OF RESULTS

The study showed that on the EPDS, 23.2% of women scored ≥ 12 points. The measurement of the dependent variable was carried out on average on the third day of puerperium, therefore it should be argued that the examined phenomenon was postpartum depression, whose severity of symptoms falls from 3 to 5 days after birth. In 20% of cases, "baby blues" type of symptoms persist above 3 weeks, can become more intense and can mark the beginning of postpartum depression [28]. The obtained result falls into the wide range of reports by other authors, both Polish and foreign. The first studies on lowered mood in Poland were carried out by Borysewicz in 1997, and the incidence of "baby blues" was estimated at 19% [29]. Similar conclusions were reached by Poznan authors who estimated the incidence of postpartum despondency at 22.5% [30]. French researchers conducting the study on a sample of 859 women demonstrated that on the 3rd day of puerperium depressed mood affected 30% of women in childbirth [31]. The high prevalence of "baby blues" is presented by Swedish study (64%) and Greek research (44.5%) [32,33]. However, dissemination indicators of postpartum despondency vary between countries, and these differences are the result of social, cultural and economic factors [3].

Analysing the connection between psychosocial factors and the occurrence of postpartum depression, it should be noted that the majority of hypotheses were confirmed. At the same time own research results correspond to the result of research by other authors. A lot of contemporary studies confirm that the presence of a loved one during delivery has a positive effect on the course and duration of labor as well as reduces pain. The husband's participation at birth is becoming more popular. By attending the birth, a man is the first and foremost a source of instrumental, factual and emotional support. In the in-house research 184 women gave birth in the presence of relatives. The results of the statistical analysis indicate that the presence of close relatives during childbirth significantly reduces the level of postpartum depression. Similar conclusions were reported by Mendel's research. A positive correlation was obtained at 0.56 and it was assumed that women whose partner participated in labor much less frequently suffered from postpartum depressed mood. This is undoubtedly connected with the fact that a young mother

experiences a sense of support from a close person [34]. Own research shows that at the level close to 0.05, social support reduced the post-natal depression level. The studies, carried out both in Poland and in the world, reveal that a significant factor for postpartum depression was lack of social support [22, 23, 35]. Survey results reveal that 119 respondents recall parturition as "traumatic experience." Based on the statistical analysis, the correlative relationship was established between a negative memory of parturition and the occurrence of postpartum depression. Other conclusions were reached by the English authors, whose research results presented the relationship between assessing the childbirth as "difficult" and the occurrence of postpartum depression [36].

Based on the statistical analysis, it was established that there is a correlation between the results obtained with EPDS and the anxiety due to motherhood felt by women in childbirth. The survey results demonstrated that 79 women had experienced precisely such emotions. A particularly difficult situation is experienced by women who are in financial distress, lonely, do not have the necessary social support, face the difficulty of caring for a sick child or their temperamental traits make it difficult to take care of an infant [37]. Awareness of the expenses inherent to the birth of a child, may cause a long-term stress, which can even increase in the case of unspecified family situation. In a situation when a woman is responsible for raising the child on her own, she lacks not only the emotional support of a partner but also the financial assistance. Analyzing the data, it was found that 10.2% of parturients rated their own economic situation as bad. The study concluded that the percentage of cases associated with a poor financial situation is significantly higher among women who have experienced postpartum depression. Conflicting conclusions were provided by the studies carried out by Czarnecka et al. [30].

A lot of authors have described the studies which indicate a link between stressful life events during pregnancy and the incidence of postpartum depression [21,38]. The definition of stressful life events includes loss or congestion events, which, in combination with specific personality traits can trigger depressive symptoms or have a significant impact on the clinical picture. Events of particular significance are as follows: the death of a close relative, marital or family conflicts, financial status changes, interpersonal conflicts or problems with children [39]. Own study

confirms the hypothesis about the relationship between negative life events and the onset of postpartum depression. Research carried out in Sweden in 3293 sample of women in early pregnancy, two months and one year after childbirth, reported that stressful life events in the year before pregnancy were an important factor of postpartum depression [21].

Women suffering from unipolar affective disorder are 30% more likely to develop postpartum depressive episode. In the case of bipolar disorder, the risk of postpartum mood disorders varies between 25-60% and is the highest after the second pregnancy [6]. The present study established the relationship between mental disorders occurring before pregnancy and the incidence of postpartum depression. 19 women had suffered previously from a mental disorder, and 13 of them (19.7%) developed PPD symptoms. A statistically significant difference was demonstrated between the occurrence of depressive illness before pregnancy and the development of postnatal depression in the study of Polish authors [35]. The analogous results were also provided by the world researchers [22,40]. Italian studies show that women with a history of depression are two times more likely to experience depression during the perinatal period [13]. It was also found that in a sample of women who suffered from postpartum depression, the percent of cases of mental illness in the family was significantly higher. 13 women reported mental illness cases in the family, and 7 of them (10.6%) developed PPD symptoms. Similar results were obtained by other authors [41]. The research carried out in Australia on a sample of 490 women in the eighth week after childbirth, stresses the importance of family history of mental illness on the development of postpartum depression [42]. It may testify for a genetic tendency to mental disorder or learned patterns of behavior, which are "the legacy" of the family [43].

CONCLUSIONS

1. The incidence of postpartum depression in the first week after childbirth was estimated at 23.2%.
2. Psychosocial determinants of postpartum depression include stressful life events during pregnancy, childbirth without the presence of close relatives, the negative memory of puerperium, anxiety because of motherhood, the incidence of mental illness before pregnancy, family history of mental disorders and the unfavorable economic situation.

3. There was no association between the lack of social support and the incidence of postpartum depression.

REFERENCES

- Kossakowska-Petrycka K, Wałęcka-Matyja K. Depresyjne zaburzenia nastroju u kobiet po narodzinach dziecka. *Acta Universitatis Lodzianis Folia Psychologica* 2007; 11: 47-57
- Hopkins J, Marcus M, Campbell SB. Postpartum depression: a critical review. *Psychol Bull.* 1984; 95(3): 498-515
- Jaeschke R, Siwek M, Dudek D. Poporodowe zaburzenia nastroju - update 2012. *Neuropsychiatria i Neuropsychologia* 2012;7(3):113-121
- Dudek D, Siwek M, Zięba A, et al. Depresja poporodowa. *Przegl Lek.* 2002;59(11):919-923
- Harris B, Lovett L, Newcombe RG, et al. Maternity blues and major endocrine changes: Cardiff puerperal mood and hormone study II. *BMJ* 1994; 308:949-953
- Siwek M, Dudek D. Depresja poporodowa. Czynniki ryzyka, wykrywanie. W: Meder J. red. *Problemy zdrowia psychicznego kobiet. Komitet Redakcyjno-Wydawniczy Polskiego Towarzystwa Psychiatrycznego, Kraków* 2003. s. 127-133
- Reck C, Stehle E, Reinig K, et al. Maternity blues as a predictor of DSM-IV depression and anxiety disorders in the first three months postpartum. *J Affect Disord.* 2009; 113 (1-2):77-87
- Pużyński S. Zaburzenia afektywne u kobiet. *Kosmos. Problemy Nauk Biologicznych* 2003;1(258): 87-95
- Kaźmierczak M, Gebuza G, Gierszewska M. Zaburzenia emocjonalne okresu poporodowego. *Probl Piel.* 2010; 18(4):503-511
- Szewczuk-Bogusławska M, Kiejna A. Zaburzenia psychiczne związane porodem. *Adv Clin Exp Med.* 2001; 10(3), Suppl.1:35-39
- Harlow BL, Vitonis AF, Sparen P, et al. Incidence of hospitalization for postpartum psychotic and bipolar episodes in women with and without prior pregnancy or prenatal psychiatric hospitalizations. *Arch Gen Psychiatry* 2007; 64(1):42-48
- Jones I, Craddock N. Familiarity of the puerperal trigger in bipolar disorder: results of a family study. *Am J Psychiatry* 2001; 158(6):913-917
- Banti S, Mauri M, Oppo A, et al. From the third month of pregnancy to 1 year postpartum. Prevalence, incidence, recurrence, and new onset of depression. Results from the perinatal depression-research & screening unit study. *Compr Psychiatry* 2011; 52(4):343-351
- Petrosyan D, Armenian HK, Arzoumanian K. Interaction of maternal age and mode of delivery in the development of postpartum depression in Yerevan, Armenia. *J Affect Disord.* 2011; 135(1-3):77-81
- Chaudron LH. Postpartum depression: what pediatricians need to know. *Pediatr Rev.* 2003;24(5):154-161
- Krzyżanowska-Zbucka J. *Problemy emocjonalne kobiet w okresie okołoporodowym. Fundacja Rodzić po Ludzku, Warszawa* 2008
- Kheirabadi GR, Maracy MR, Barekatin M, et al. Risk factors of postpartum depression in rural areas of Isfahan Province, Iran. *Arch Iran Med.* 2009; 12(5):461-467
- Mori T, Tsuchiya KJ, Matsumoto K, et al. Psychosocial risk factors for postpartum depression and their relation to timing of onset: The Hamamatsu Birth Cohort (HBC) Study. *J Affect Disord.* 2011; 135(1-3):341-346
- Adewuya AO. The maternity blues in Western Nigerian women: prevalence and risk factors. *Am J Obstet Gynecol.* 2005; 193(4):1522-1525
- Vigod SN, Villegas L, Dennis CL, et al. Prevalence and risk factors for postpartum depression among with preterm and low-birth-weight infants: a systematic review. *BJOG* 2010; 117(5):540-550
- Rubertsson C, Wickberg B, Gustavsson P, et al. Depressive symptoms in early pregnancy, two months and one year postpartum-prevalence and psychosocial risk factors in a national Swedish sample. *Arch Womens Ment Health* 2005; 8(2):97-104
- Garcia-Esteve L, Navarro P, Ascaso C, et al. Family caregiver role and premenstrual syndrome as associated factors for postnatal depression. *Arch Womens Ment Health* 2008; 11(3):193-200
- Ozbaşaran F, Coban A, Kucuk M. Prevalence and risk factors concerning postpartum depression among women within early postnatal periods in Turkey. *Arch Gynecol Obstet.* 2011; 283(3):483-490
- Kirpinar J, Gözümlü S, Pasinliöglu T. Perspective study of postpartum depression in eastern Turkey prevalence, socio-demographic and obstetric correlates prenatal anxiety and early awareness. *J Clin Nurs.* 2010; 19(3-4):422-431
- Podolska MZ, Sipak-Szmigiel O. Stan cywilny a nasilenie objawów depresji okołoporodowej wśród kobiet ciężarnych. *Ann Acad Med Stetin.* 2010; 56(1):87-92
- Payne JL, MacKinnon DF, Mondimore FM, et al. Familial aggregation of postpartum mood symptoms in bipolar disorder pedigrees. *Bipolar Disord.* 2008; 10(1):38-44
- Cox JL, Holden JM, Sagovsky R. Detection of postnatal depression. Development of the 10-item Edinburgh Postnatal Depression Scale. *Br J Psychiatry* 1987; 150:782-786
- Piotrowski T, Kaczyński J. Zaburzenia psychiczne związane z porodem. W: Dębski R. red. *Stany nagłe. Położnictwo i ginekologia. Medical Tribune Polska. Warszawa* 2012, wydanie I. s. 262-269
- Borysewicz K. Edynburska Skala Depresji Poporodowej. *Post Psychiat Neurol.* 2000;9:71-77
- Czarnecka M, Jaszczak M. The prevalence and risk factors of depression in women postpartum. *Archives of Perinatal Medicine* 2006; 12(3):7-10
- Teissedre F, Chabrol H. A study of the Edinburgh Postnatal Depression Scale (EPDS) on 859 mothers: detection of mothers at risk for postpartum depression. *Encephale* 2004; 30(4):376-381

32. Edhborg M. Comparisons of different instruments to measure blues and to predict depressive symptoms 2 months postpartum: a study of new mothers and fathers. *Scand J Caring Sci* 2008; 22(2):186-195
33. Gonidakis F, Rabavilas AD, Varsou E, et al. Maternity blues in Athens, Greece: a study during the first 3 days after delivery. *J Affect Disord.* 2007; 99(1-3):107-115
34. Mendel A. Doświadczenie porodu a poporodowe obniżenie nastroju u kobiet. W: Lichtenberg-Kokoszka E, Janiuk E, Dzierżanowski J. red. *Optymalizacja porodu-zagadnienie interdyscyplinarne.* Oficyna Wydawnicza Impuls. Kraków 2008. s. 65-69
35. Kosińska-Kaczyńska K, Horosz E, Wielgoś M, i wsp. Zaburzenia afektywne u położnic w pierwszym tygodniu po porodzie - analiza rozpowszechnienia i czynników ryzyka. *Ginekol Pol.* 2008;79:182-185
36. Hannah P, Adams D, Lee A, et al. Links between early postpartum mood and postnatal depression. *Br J Psychiatry* 1992; 160:777-780
37. Bielawska-Batorowicz E. Psychologiczne aspekty prokreacji. Wydawnictwo Naukowe „Śląsk” Katowice 2006
38. Agoub M, Moussaoui D, Battas O. Prevalence of postpartum depression in a Moroccan sample. *Arch Womens Ment Health.* 2005;8: 37-43
39. Rajewska-Rager A, Rybakowski J. Rola stresujących wydarzeń życiowych w patogenezie depresji. *Neuropsychiatria i Neuropsychologia* 2008;3(3-4):147-152
40. Nagy E, Molnar P, Pal A, et al. Prevalence rates and socioeconomic characteristics of post-partum depression in Hungary. *Psychiatry Res.* 2011; 185(1-2):113-120
41. O'Hara MW, Schlechte JA, Lewis DA, et al. Controlled prospective study of postpartum mood disorders: psychological, environmental, and hormonal variables. *J Abnorm Psychol.* 1991; 100(1):63-73
42. Johnstone SJ, Boyce PM, Hickey AR, et al. Obstetric risk factors for postnatal depression in urban and rural community samples. *Aust N Z J Psychiatry* 2001; 35(1):69-74
43. Wasilewska-Pordes M. *Depresja porodowa u kobiet.* Wydawnictwo Radamsa. Kraków 2000

Address for correspondence:

dr Marzena Kaźmierczak
Pracownia Podstaw Opieki Położniczej Wydział
Nauk o Zdrowiu CM UMK
ul. Łukasiewicza 1
85-801 Bydgoszcz
tel. 52 585-59-04
tel. kom. 506023541
e-mail: marzena.kazmierczak@cm.umk.pl

Received: 20.01.2014

Accepted for publication: 26.08.2014