Archives of Psychiatry and Psychotherapy, 2021; 4: 46–55

10.12740/APP/139246

Postnatal depression – the role of attachment and mentalization

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Abstract

The aim of the study: The aim of this paper was to find differences in the quality of relationships with a partner, mother's attachment to the child, mentalization capacity and the style of the mother's attachment between groups of women with and without postnatal depression (also referred to as postpartum depression) as measured by the EPDS questionnaire.

Materials and methods: The research group comprised 68 women in total. They were divided into two groups. Thirty-three women who scored more than or equal to 12 points in the EPDS questionnaire were included in the group with postnatal depression. The control group consisted of 35 women who scored below 12 points on the same scale.

Results: The following tools were used in the study: Experiences in Close Relationships (ECR), Mental Scale Task (MST), Quality of Relationships Inventory (QRI), and Postpartum Bonding Questionnaire (PBQ).

Conclusions: The results obtained point out to specific differences between the two groups. The women whose EPDS score indicates postnatal depression are characterized by a weaker bond with their child, weakened mentalization capacity, their attachment patterns are more often insecure and relationship-related problems tend to occur.

postnatal depression; attachment; relationship; mentalization

INTRODUCTION

Postnatal depression is a serious clinical and social problem that causes suffering to the mother and adversely affects the well-being and development of her child. It is a depressive disorder accompanied by some characteristic symptoms, i.e. lowered mood, loss of interest, loss of energy, increased guilt, cognitive disorders, sleep disorders, loss of appetite, suicidal thoughts, negative thoughts about oneself. It often occurs within one year after the birth of a child [1], although most episodes have their onset in the second or third month after childbirth [2,3]. The prevalence of postnatal depression ranges from 13% to 19% depending on the identification criteria adopted and the population studied [4]. It is higher (19.6%) in countries with low and medium income [5] and lower (9.6%) in countries with high income [6,7]. The role of biological and psychosocial factors is underlined in the aetiology of postnatal depression. Biological factors include strong fluctuations in the levels of steroid and peptide hormones, which occur dur-

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ing and after pregnancy [8]. Psychosocial factors include previous depressive disorders, low level of social support, and experiencing domestic violence during pregnancy and after childbirth [9].

According to John Bowlby's theory of attachment the child creates expectations towards the availability and responsiveness of the caregiver based on the quality of experienced care. These expectations then serve as the basis for the development of mental representations of oneself, of others and of relationships (they become 'operational models'). High availability and sensitivity of the caregiver to the child's needs allow the child to create a secure style of attachment. In turn, a relationship with an inaccessible, unreliable, inconsistent or insensitive caregiver fosters the development of insecure attachment. The pattern of attachment created during childhood is characterized by stability over the course of life and largely determines the shape of later close relationships and the way of dealing with one's own emotions [10]. In the face of the prospect of becoming a parent, the style of attachment influences the representation of oneself as a caregiver, of the child as a recipient of care and of mutual relationships. It conditions expectations and concerns related to parenthood. Excessive anxiety during the critical time of pregnancy and the postnatal period can lead to mood disorders. Many studies have shown that an insecure attachment style is a risk factor for postnatal depression [11-13].

Mentalization is an imaginative act of explaining behaviour as related to a state of mind, which is composed of thoughts, feelings or desires [14]. Mentalization is the ability to recognize and understand one's own feelings, desires and intentions as well as those of other people. Reasoning regarding another person's mental state requires emotional involvement in the history of the person whose mind is to be recognized as well as being in a real or imaginary relationship with them. Recognizing one's own and others' feelings, intentions and desires helps regulate emotions [15]. It can be predicted that high mentalization capacity will allow the mother to better read the child's mind and respond adequately to his or her needs, which will have a positive impact on her satisfaction with motherhood. At the same time, it will enable her to recognize and regulate her own emotions linked with the relationship with her child. Therefore, high mentalization capacity can be expected to be a protective factor against postnatal depression.

Many studies indicate that postnatal depression is a risk factor in the development of disturbances in the mother's attachment to her child. Women with symptoms of postnatal depression are less involved in the relationship with their child, provide him or her with less closeness and tenderness, are less sensitive to the signals sent by the infant, less tuned to the baby and less emotionally available [16]. One can also consider whether the mother's difficulty in getting involved with her baby is not a factor that affects her mood after childbirth. This is emphasized in the studies in which mothers at risk of postnatal depression were subjected to specific actions to improve their ability to care for their child, which resulted in a reduction of anxiety and depression symptoms [17].

Research indicates that the quality of relationship with the partner is a significant risk factor for postnatal depression [18, 19]. Women who are less satisfied with their relationship experience a lower level of intimacy, self-fulfilment and partnership similarity, as well as a deeper sense of disappointment, suffer from more severe symptoms of postnatal depression [19].

In the light of the above theoretical considerations and research studies, it is interesting to know the correlation between the quality of attachment (to the partner, to the child) and the mentalization capacity and the occurrence of symptoms of postnatal depression. The aim of the study was to check whether there are differences in the quality of relationship with the partner, mother's attachment to her child, mentalization capacity and attachment style of the mother between groups of women with and without postnatal depression as measured by the EPDS questionnaire.

MATERIAL AND METHOD

The research was conducted in the period from November 2018 to February 2019. Participation was voluntary and anonymous and was preceded by information about the purpose and nature of the survey and a re-

quest for written consent. Some of the data were collected by a midwife who visited the women after childbirth (about 3 months after childbirth) and some using a computer program that allows for the posting of questionnaires and sending them to mothers who belonged to support groups for women with postnatal depression. Sixty-eight women were examined in total. Based on results of the Edinburgh Postnatal Depression Scale (EPDS) test, the group was divided into two parts. Thirty-three women who scored more than or equal to 12 points in the EPDS questionnaire were included in the group with symptoms of postnatal depression (PD). The control group (C) consisted of 35 women who scored below 12 points on the same scale. A comparison of the groups in terms of sociodemographic variables did not reveal significant differences in terms of the women's age (PD – 27.4 years; C – 27.8 years), the child's age (PD – 6.5 months; C – 6.7 months), length of breastfeeding (PD – 3 months; C – 4 months), place of residence (village/town or city), education (primary/vocational/secondary/higher), marital status (marriage/informal relationship/lonely motherhood). There were no statistically significant differences in terms of help with raising children provided to mothers by fathers and other people. Neither were there any significant differences in whether the pregnancy was planned and in the type of childbirth (natural childbirth/caesarean section). The subjects were asked to indicate whether the pregnancy was correct or whether there were problems during pregnancy. Most women in the PD group had problems during pregnancy (27.27%), while in the C group problems affected a significant minority of the women (5.71%). There are statistically significant differences in the course of pregnancy between the compared groups.

The following tools were used in the study:

1. Edinburgh Postnatal Depression Scale – EPDS

The EPDS questionnaire was created in 1987 by J. L. Cox, J. M. Holden and R. Sagovsky, and the Polish adaptation – with the author's consent – was prepared by K. Kossakowska. This tool is used to recognize the symptoms of postnatal depression. It is used to assess the subject's well-being in the past 7 days before the examination. The Edinburgh Postnatal Depression Scale consists of 10 statements that describe different aspects of the woman's well-being such as: anhedonia (questions 1 and 2), guilt (question 3), anxiety (question 4), panic attacks (question 5), exhaustion (question 6), sleep disorders (question 7), sadness (question 8), tearfulness (question 9), and suicidal thoughts (question 10). The patient chooses one of four possible answers. The answers are scored from 0 to 3. The sum of all points makes up the overall score. The maximum score is 30 points – the higher the score, the more severe the symptoms of postnatal depression. The authors assume the score of 12/13 points as the limit value for postnatal depression; however, they admit that some specialists should be vigilant even in the case of scores lower than the limit value [20].

The Polish adaptation of the questionnaire is a reliable tool – Cronbach's alpha exceeds the recommended value of 0.7 and totals 0.91 [21].

2. Experiences in Close Relationships – ECR

The ECR questionnaire was created in 1987 by Brennan, Clark and Shaver. The Polish adaptation was made by M. Stawska in 2011. The questionnaire examines attachment in close relationships; two dimensions of attachment are assessed, i.e. avoiding closeness and expressing feelings, and the dimension of fear of abandonment and lack of acceptance. The ECR test is made up of 36 statements and is the most commonly used tool for investigating attachment.

The questions in the questionnaire refer to Bartholomew's concept which presented a theoretical model of attachment and distinguished four subtypes of attachment:

- Secure attachment,
- Anxious-preoccupied attachment,
- Dismissive-avoidant attachment,
- Fearful-avoidant attachment.

These attachment subtypes are based on two main dimensions, which are described by 18 items, i.e. the Avoidance dimension and Anxiety dimension. Based on the scores obtained,

the dominant style of attachment is also calculated [22].

The Polish adaptation of the questionnaire contains statements to which the respondent answers using the following scale: 1 – I strongly disagree, 2 – I moderately disagree, 3 – I minimally disagree, 4 – neutral, 5 – I minimally agree, 6 – I moderately agree, 7 – I strongly agree. A reversed scale was used in some of the statements.

The reliability of the test was evaluated on the basis of test-retest reliability (0.91) and Cronbach's alpha internal consistency reliability (0.86). The accuracy was confirmed by verifying the theoretical accuracy of the ECR scale [23].

3. Mental Scale Task – MST

Genevieve Beaulieu-Pelletier is the author of this tool. She created a shortened test version of the Mental Scale Rating System [24]. The Polish adaptation of MST was made by Lidia Cierpiałkowska and Anna Kwiecień (2011). The test procedure starts with a pre-test, during which the person examined is looking at one of the cards (3ChM) of the Thematic Apperception Test. The card shows a person of unknown sex sitting on the floor with their back turned towards the observer and their head resting on one of their shoulders, with a revolver lying on the side, which is sometimes perceived as keys, or may also be unnoticed. The purpose of the pre-test is to arouse the subject's depressive feelings linked with the loss of a relationship. However, the picture is so ambiguous that it will not necessarily cause this kind of experience and emotions in the examined person. Then the subject is asked to write a story that came to their mind after seeing the picture. They have to write what happened in the story, what led to those events, what the person felt and thought and how the story will end. Then the subject must respond to 24 statements using a 7-grade scale from 1 (I strongly disagree) to 7 (I strongly agree) on how they felt when inventing and writing the story. Based on the responses to the questionnaire one of the six styles of mentalization capacity can be attributed to the subject:

- Concrete thinking – the style describes the lowest level of mentalization capacity, characterized by poor insight and poor representation of experience, as well as the lack of comprehensive emotional content. A person who is characterized by this style is not able to notice a relationship between experiences and emotions and does not recognize the mental states of others. A person this style describes has difficulty in understanding the subjective experiences of others.
- Primitive defence mechanisms – people with this style have a high level of negative affect, are emotionally overloaded with the content of representations and are not able to make sense of them. Primitive defence mechanisms inhibit difficult mental content, hence the inability to experience other people's emotions. This style is characteristic for people with interpersonal and psychological maladjustment.
- Average level of maturity of defence mechanisms – people who are characterized by this style are prone to erase subjective experiences from memory or trivialize the personal meaning of recognized experiences. This contributes to the distortion of the expression of affective content. The characteristic defence mechanisms are suppression, denial and minimization. These defence mechanisms make it impossible to recognize difficult emotions in oneself and in others, which causes interpersonal maladjustment.
- Objective and rational style – people who are characterized by this style are able to partially recognize the emotional content of their experiences; however, they treat their own experiences and those of other people with great distance, which results in impoverished interpersonal relations.
- Mature defence mechanisms – people with this style have great insight into their own experiences, but it is limited by the action of mature defence mechanisms. This style is more adaptive than those mentioned above, which indicates greater psychological and interpersonal well-being.

- Reflexivity – people who are characterized by this style have a great ability to notice and recognize their own full experiences and those of others. Such people have the ability to reflect on themselves and to understand themselves. Reflexivity is related to the presence of mature defence mechanisms and strategies for regulating emotions.

The person examined can score between 4 and 28 points on any scale. The average score of the entire questionnaire indicates an overall level of mentalization capacity. The scale on which the subject obtains the highest score allows the dominant style of mentality to be recognized [24,25].

4. The Quality of Relationships Inventory – QRI

Inwentarz Jakości Związku is the Polish adaptation of The Quality of Relationships Inventory questionnaire [26]. It is designed to assess the quality of relationship between partners. The QRI test allows to assess the perceived support received from the partner, the intensity of conflicts and the depth of relations. The questionnaire consists of 23 statements, to which the subject responds on a four-grade scale (1 – not at all, 2 – not much, 3 – significantly, 4 – a lot). The task of the examined person is to answer questions concerning their relationship with the partner. The relationship depth dimension is made up of six items; this dimension determines the level of commitment to the relationship and its valuation. The conflict dimension consists of twelve statements that reflect the intensity of negative and ambivalent feelings towards the close person. The support dimension consists of seven statements and allows to assess the extent to which one can count on the help and commitment of the close person.

The reliability of the tool – assessed by estimating Cronbach's alpha internal consistency reliability – proved to be satisfactory [26].

5. Postpartum Bonding Questionnaire – PBQ

The Polish translation of the questionnaire, with the author's consent, was done by M. Chrzan-Dętkoś. The tool is used to assess the mother's attachment to her child and helps to assess the quality and strength of the attachment. It is composed of four subscales:

- Difficulties in building a bond,
- Anxiety related to taking care of the baby,
- Anger and rejection,
- Abuse.

The original version of the questionnaire consists of 25 questions to which the respondent answers on a six-grade scale from 0 to 5, where 0 means always, 1 – very often, 2 – often, 3 – sometimes, 4 – rarely, 5 – never. The Polish translation also contains 25 questions, however, one should pay attention to the reversed scoring than in the original version, where 1 means never, 2 – rarely, 3 – sometimes, 4 – often, 5 – very often, 6 – always. In both language versions, scoring is reversed in 17 items. The reliability of the test was evaluated on the basis of test-retest reliability (0.83) and Cronbach's alpha internal consistency reliability (0.81). These coefficients mean that the test is reliable and accurate [27].

RESULTS

The data obtained with the research tools were analyzed statistically using IBM SPSS Statistics, version 25. A verification of the hypotheses was preceded by an analysis of the distribution of the examined variables with division into a cohort of people with and without postnatal depression as measured by the EPDS questionnaire. The analysis, performed with the Kolmogorov–Smirnov test, showed that not all the examined variables were characterized by normal distribution. Due to the fact that the size of the studied groups remained similar, it was decided to conduct further statistical analyses using parametric tests. The parametric test applied in the examination of the materiality of differences was the Student's t-test.

Table 1. Student's t-test scores for the variables from the Mental Scale Task test.

	Group	N	Mean	Standard deviation	Test for equal means		
					T	df	Materiality (bilateral)
Concrete thinking	C	35	15.69	4.619	2.841	66	**0.006**
	PD	33	12.61	4.301			
Primitive defence mechanisms	C	35	14.80	5.935	1.176	66	0.244
	PD	33	13.15	5.608			
Average level of maturity	C	35	17.03	2.662	2.082	66	**0.046**
	PD	33	15.12	4.675			
Objective and rational style	C	35	15.69	4.619	2.841	66	**0.006**
	PD	33	12.61	4.301			
Mature defence mechanisms	C	35	14.80	5.935	1.176	66	0.244
	PD	33	13.15	5.608			
Reflexivity	C	35	17.03	2.662	2.082	66	**0.041**
	PD	33	15.12	4.675			
Overall score	C	35	3.59	0.237	0.327	66	0.744
	PD	33	3.57	0.316			

The highest scores in the Mental Scale Task test (Table 1) in the group of women with postnatal depression were obtained for the reflexivity and average maturity scales, and the lowest for the concrete thinking and objective and rational style scales. The highest scores in the control group were achieved by women for the following style: reflexivity and average maturity, and the lowest for the style based on primitive defence mechanisms and mature defence mechanisms. In both groups, the dominant style is reflexivity and average maturity, while in the group of women with postnatal depression the scores obtained in these styles are significantly lower than in the control group. There were no statistically significant differences between the studied groups in the following styles: primitive defence mechanisms, mature defence mechanisms and the overall result.

Table 2. Student's t-test scores for the four dimensions of bonds with the child: difficulty in building a bond, anger and rejection, anxiety, and abuse.

	GROUP	N	Mean	Standard deviation	Test for equal means		
					T	Df	Materiality (bilateral)
Difficulties in building a bond	C	35	50.40	3.380	6.216	66	**0.000**
	PD	33	42.61	6.552			
Anger and rejection	C	35	31.91	3.364	3.930	66	**0.000**
	PD	33	27.64	5.430			
Anxiety related to taking care of the baby	C	35	14.86	2.463	4.891	66	**0.000**
	PD	33	10.88	4.091			
Abuse	C	35	9.6	0.604	3.210	66	**0.004**
	PD	33	8.24	2.424			

The results obtained (Table 2) indicate that there were statistically significant differences between the groups in all dimensions of bonds with the child (difficulty in building a bond, anger and rejection, anxiety related to taking care of the baby, and the scale of abuse). In all the scales, higher scores were obtained by the women from the control group, which indicates that women with postnatal depression – as measured by the EPDS questionnaire – differ from healthy

women in terms of their bond with the child. The higher the mean value, the less intense the variable. Women with postnatal depression – as measured by the EPDS questionnaire – are more likely to feel anger and rejection in relation to the child, have more difficulty building a bond with the child, are more likely to feel anxiety related to taking care of the baby, and are more likely to resort to abuse.

Table 3. Student's t-test score for attachment patterns – scale of anxiety and fear.

	GROUP	N	Mean	Standard deviation	Test for equal means		
					T	Df	Materiality (bilateral)
Anxiety scale	C	35	2.304	1.242	-4.168	66	**.000**
	PD	33	3.554	1.231			
Avoidance scale	C	35	2.984	0.931	-5.626	66	**.000**
	PD	33	4.342	1.051			

Student's t-test (Table 3) shows that there are statistically significant intergroup differences in the scale of anxiety and avoidance. Women with postnatal depression – as measured by the EPDS questionnaire – have higher mean values on the avoidance and anxiety scale, which indicates a higher tendency to avoiding closeness and difficulty in expressing feelings, as well as a stronger fear of abandonment and lack of acceptance than in healthy women.

Table 4. Student's t-test scores for the variables from the Experiences in Close Relationships test.

Style of attachment	Group	N	Mean	Standard deviation	Test for equal means		
					T	Df	Materiality (bilateral)
Secure	C	35	12.379	8.07	-6.046	66	**.000**
	PD	33	23.921	7.66			
Fearful-avoidant	C	35	8.723	14.59	-5.889	66	**.000**
	PD	33	28.873	13.55			
Anxious-preoccupied	C	35	9.560	12.37	-6.084	66	**.000**
	PD	33	27.648	12.13			
Dismissive-avoidant	C	35	9.560	12.26	-5.556	66	**.000**
	PD	33	25.39	11.31			

Results (Table 4) show that there are significant differences between healthy women and women with postnatal depression – as measured by the EPDS questionnaire – for all attachment styles. In fearful-avoidant, anxious-preoccupied, and dismissive-avoidant attachment style, the higher the mean the higher the intensity of the trait, while in secure attachment – the lower the mean the higher the intensity of the trait. Healthy people had a much lower score in the secure style, which means that they are characterized by this style to a greater extent than the women from the PD group. On the other hand, women with postnatal depression – as measured by the EPDS questionnaire – scored higher in fearful-avoidant, anxious-preoccupied, and dismissive-avoidant attachment styles, which indicates that they are more likely to demonstrate insecure attachment styles.

Table 5. Student's t-test scores for the following variables: perceived support, interpersonal conflict, depth of relationship.

	GROUP	N	Mean	Standard deviation	T test for equal means		
					T	Df	Materiality (bilateral)
Perceived support	C	35	3.363	0.5759	2.146	66	**0.035**
	PD	33	3.069	0.5522			
Interpersonal conflict	C	35	1.974	0.6857	-3.144	66	**0.003**
	PD	33	2.476	0.6260			
Depth of relationship	C	35	3.129	0.7220	0.645	66	0.521
	PD	33	3.030	0.5093			

The results obtained (Table 5) indicate that statistically significant differences occurred in terms of perceived support and interpersonal conflict. The women with postnatal depression – as measured by EPDS questionnaire – perceived their relationship with the father of the child less positively than the healthy women, perceived their partner as a less significant source of support and experienced anger and ambivalent feelings towards him more often.

DISCUSSION

The dominant styles in terms of mentalization capacity – both in the group of women with and without postnatal depression – proved to be reflexivity and average level of maturity of defence mechanisms, while the women with depression recorded significantly lower scores in these styles. The results obtained are in line with theoretical predictions, since a style based on reflexivity means the ability to perceive, recognize and be moved by one's own or someone else's experiences. It involves the ability of self-reflection and self-understanding. The emotions experienced and their expression are adapted to the situation, expressive and varied [25]. This style can be a factor protecting against depression, as the recognition of one's own emotions allows one to deal with them better, and the proper recognition of the child's desires and emotions allows the mother to respond adequately, which has a positive effect on the child and promotes satisfaction from motherhood. On the other hand, a style based on the average level of maturity of defence mechanisms is associated with a tendency to erase subjective experiences from memory or trivialize their personal importance. This contributes to the hindering or distortion of the recognition and expression of affective content. The defence mechanisms used, such as suppression and denial, make it impossible to recognize unpleasant and difficult emotions in oneself and in others, which may be a factor allowing to deal with strong negative emotions (fear, despair, anger) when their intensity exceeds the individual's ability to experience [25]. Since the second dominant style is reflexivity, it can be assumed that when the intensity of emotions decreases, they can be recognized and experienced.

The PBQ test results obtained indicate that women with postnatal depression – as measured by the EPDS questionnaire – are more likely to feel anger and rejection in relation to the child, have more difficulty building a bond with the child, are more likely to feel anxiety related to taking care of the baby, and are more likely to resort to abuse than healthy women. The results are in line with the results of prior studies which indicate that postnatal depression is a risk factor in the development of disturbances in the mother's attachment to her child [16]. In this case, however, it is difficult to decide on the direction of the correlation between variables, as problems in taking care of and attachment to the child may also worsen the woman's mood (lower her mood and increase her fears). Feedback can occur, in which difficulties in building attachment to the child aggravate the mother's depression and her symptoms have a negative impact on the relationship with the child. Undoubtedly, the therapeutic effects directed at the relationship between the mother and the child allow to break the vicious circle [17].

This study confirms previous reports that women with postnatal depression are more likely to have insecure attachment styles. Anxious-

preoccupied attachment styles are a potential factor in the development of internalizing disorders such as depression, anxiety or social isolation [28], while a secure attachment style can be a factor protecting against the development of psychopathology. In the studies carried out by Ikeda, Hayashi and Kamibeppu (2014), an insecure attachment style – in addition to economic status and depression during pregnancy – has proven to be an important predictor of postnatal depression [11]. In contrast, studies by Nanni and Troisi (2017) show that higher scores in the anxious and anxious-preoccupied styles are associated with more severe symptoms of depression and postpartum anxiety, but only the anxious style proved to be a significant predictor of postpartum anxiety when the disruptive effects of mood disorders were considered in the story [12].

The results of the study confirm the important role of the support network in coping with new challenges such as pregnancy, childbirth and early motherhood. Women with postnatal depression perceive their partner as a less significant source of support and experience anger and ambivalent feelings towards him more often than healthy subjects. Similar results were found in the studies conducted by Małus et al. (2016). It was observed that greater intensity of symptoms of postnatal depression (difficulties with sleeping/eating, anxiety/uncertainty, mood swings, mental chaos, sense of loss of one's own self, guilt/shame, suicidal thoughts) occurred in people less satisfied with their relationship, those who experienced less intimacy, self-fulfilment and similarity, and had a greater sense of disappointment [19]. In studies by Faisal-Cury and Tabb (2020), low quality of relationship with the partner and a drop in sexual activity proved to be predictors of late postnatal depression (12-15 months after childbirth) [18].

The study carried out is of a cross-sectional design and, therefore, does not allow to deduce the direction of the correlation. It does not allow to decide whether an unsatisfactory relationship with the partner and the lack of support from him contributed to the emergence of depression symptoms after childbirth, or whether a lowered mood and related cognitive disorders result in a negative perception of the surrounding reality, including the relationship with the partner. This question could be answered after longitudinal studies, which would allow to estimate the quality of relationship and mood at different moments of life, i.e. before pregnancy, during pregnancy and after childbirth.

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