The Need for Additional Mental Health Support for Women in the Postpartum Period in the Times of Epidemic Crisis

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Abstract

Background: This study aimed to identify possible intensification of mental health difficulties among women seeking support in the postpartum period during the epidemic state in Poland. We assumed that the epidemic crisis, social isolation and restrictions in hospitals which affect pregnant and postpartum women - lack of family labours, lack of the possibility to be with the newborn when he/she is hospitalized, may increase fear and reduce psychosocial resources of women, hinder their normal process of transition to motherhood and thus contribute to the intensified severity of depressive symptoms.

Methods: The study participants were women seeking support at the on-line platform of the project 'Next Stop: MUM', which is a part of the postpartum depression prevention's program implemented by the Ministry of Health in Poland, and enables remote self-screening for the severity of the postpartum depression symptoms with the Edinburgh Postpartum Depression Scale developed by Cox and collaborators. The analyzed data in this study were obtained from 139 women: 61 filled forms from October 1 - November 10, 2019 (non-epidemic period), and 78 filled forms from February 20 - March 30 (beginning of the epidemic), 2020.

Results: A statistically significant difference in the severity of postpartum depression symptoms was observed among women making a self-assessment with EPDS scale at the beginning of the covid-19 epidemic in Poland (M = 15.71; SD = 6.23), compared to the pre-epidemic neutral period (M = 13.56; SD = 6.46).

Conclusions: The results of this study indicate that the epidemic crisis may be associated with an increased need for additional caution and support of women's mental health in the postpartum period. We believe that recommendations for medical staff, policy and families of women struggling with postpartum depression symptoms during crisis should be widespread as the second wave of covid-19 disease may develop in autumn 2020.

Background

The global epidemic crisis is having a profound effect on all aspects of our life. In Poland, as well as in other European countries self-isolation and severe restriction in everyday routine were introduced in early March 2020. A study carried out in Poland 10 days after introducing restrictions [1] showed that the level of anxiety in Polish society was quite high. 75% respondents were worried that some people would not follow government's instructions and the virus would spread too quickly. 73% were afraid of hospital overcrowding and healthcare system failure, 72% - losing loved ones, 71% - financial crisis and market collapse, and 70% - panic and irrational behaviour of other people. 26% Poles estimated that their anxiety reached the level of panic attack. Moreover, the study [1] revealed that women felt greater fear than men at the beginning of the epidemic crisis.

According to international studies [2, 3], especially vulnerable to stress and mental health problems are front-line health and social care staff, those with pre-existing health issues, young people (aged ≤ 18 years), and older adults (aged ≥ 65 years). However, beyond direct influence, psychological and social effects of the covid-19 epidemic are increasingly seen as pervasive factors which may affect mental health now and in the future [2]. On the basis of the studies concerning the early phase of the severe acute respiratory syndrome (SARS) outbreak, a range of psychiatric morbidities may be suspected including persistent depression, anxiety, panic attacks, psychomotor excitement, psychotic symptoms, delirium, and even suicidality [4–6]. Moreover, we believe that the epidemic crisis and high level of anxiety which was observed in the early stage of the covid-19 outbreak [1] could contribute to the intensification (or be a trigger) of mental health problems among those people who were at high-risk under normal (non-epidemic) conditions [7, 8]. We assumed that such factors as anxiety about the possibility of infection during pregnancy and / or after delivery, restrictions on delivery and hospital stay (limited contact with relatives and friends), limited access to specialist and control treatment (often restricted only to emergency situations), social isolation and loss of social support due to voluntary quarantine and lockdown, confusion and panic (often increased by fake news) – all may affect the well-being and mental health of mothers in the postpartum. It is worth emphasizing that lack of social support is listed as one of major risk factors for postpartum depression along with high life stress, current or past abuse, prenatal depression, and marital or partner dissatisfaction [8].

In the time of epidemic crisis, women after childbirth are exposed to several of the above-mentioned consequences (social isolation, higher life stress), which may worsen their mental health, and the existing psychosocial resources may not be sufficient to cope with the process of transition to motherhood, which can result in the development / intensification of depressive symptoms. Previous studies [9, 10] described the effects of the covid-19 epidemic on the depression and anxiety levels of pregnant women. Recent assessment of depression symptoms with the Edinburgh Postnatal Depression Scale revealed significantly higher rates of depressive symptoms among pregnant women assessed after the declaration of covid-19 epidemic in comparison to women assessed in pre-epidemic period [10]. However, there are no reports on the occurrence of severe depressive symptoms among women in the postpartum period during epidemic crisis.

Postpartum depression (PPD) is a common and serious mental health problem that affects about 13–20% of new mothers [11, 12]. In many cases PPD resolves spontaneously e.g. Whiteford et al. [13] reported the remission rate of 53% in adult samples experiencing depression within one year and O'hara et al. [14] indicated that the symptoms last seven months on average when left untreated. Yet still, about one in three women feel worse even more than a year after delivery, and research [15, 16] indicate that there are about 40% cases of relapses. Researchers [17–19] indicate that suicide accounts for one in five of deaths and is the second leading cause of mortality in the first year postpartum. Therefore, screening procedures (in order to detect PPD symptoms) are widely implemented in many countries. Of course, screening test precedes the extended clinical examination, but helps to quickly detect cases that may require fast professional help [20].

The severity of PPD symptoms is associated with many biological and non-biological factors e.g. Wisner et al. [19] indicates that the particular risk refers to those women with a personal or family history of depression, physical or sexual abuse, unplanned pregnancy, and pregnancy complications. On the other hand, social support is an important protective factor [21]. However now, during COVID-19 pandemic, new mothers are deprived of their social network. According to the British Academy of Medical Science, major adverse consequences of the epidemic crisis are increased social isolation and loneliness [22], which are strongly associated with anxiety, depression, self-harm, and suicide attempts across the lifespan [23, 24]. The aggravated depressive symptoms during global epidemic crisis can thus be caused directly - by concerns about exposure to COVID-19 (an additional strong and widespread stressor) but also indirectly: negative mental state can get worse along with restrictions introduced by many countries e.g. reduced ability to stay in direct contact with family and friends after birth, recommendations for physical distance - all limits the accessibility to sources of social support – grandparents, friends as well as institutions providing support for mothers and their children: e.g. lactation consultations, postpartum home visits of midwives, consultations with pediatricians etc. Many families are also encountering several changes in financial well-being and economic stability. Moreover, prolonged direct contact with other children (daily care and home education during pandemic) can intensify daily fatigue, stress, trigger conflicts and interfere with adapting to life with a new baby. So, epidemic crisis can limit a great part of a psychological resources that builds woman's health in the postpartum period.

Methods

Aim and design

At the turn of February and March 2020, we began to observe an increase in the number of requests for psychological consultations via our on-line platform 'Next Stop: MUM' which offer mental health support for Polish women up to a year after giving birth. We began to wonder if this sudden increase in support requests from women may be associated with exacerbation of depressive symptoms caused by the outbreak of the covid-19 epidemic in Europe. Thus, the purpose of this study was to characterize the mental state of women in the postpartum period seeking mental health support at the beginning of the epidemic crisis in Poland – late February and March 2020, when disturbing information about the virus began to spread to European countries, including Poland. It is worth to add that it was also the time of the greatest panic, confusion and the emergence of fake news.

In order to verify whether the severity of depressive symptoms was different at the beginning of the covid-19 epidemic from the neutral (non-epidemic) period, we decided to compare the results of the severity of PPD among women from February 20th - March 30th (early wave of the covid-19 epidemic in Europe) with those from early autumn 2019 (October 1st - November 10th, 2019). We chose this period because we decided that it is long enough before Christmas preparation time which can contribute to an intensification of symptoms that are compounded by Christmas-related stress - in all people, not just among risk groups.

Procedure

Most European countries conduct screenings to monitor the mental state of women in the postpartum period. In Poland such an obligation was introduced recently - in January 2019 when new, national standard of a perinatal care was introduced. This standard organized, among others, procedures related to early support of women' mental health after delivery. On this basis, Polish Ministry of Health implemented regional programs aimed at screening postpartum mental health disorders and offering quick support in the place of a woman's residence. The regional division makes it easier to coordinate the project by regional implementers and provide direct assistance to women from various places in Poland (not just large urban agglomerations). Regional programs are financed from public funds and co-financed by the European social's funds. One of them is a project 'Next Stop: MUM' (no. POWR.05.01.00-00-0023/18), which was implemented in the northern macro-region of Poland by the Copernicus Health Entity along with the Institute of Psychology at the University of Gdansk in mid-2019. In addition to screening procedures implemented at hospitals and health facilities, implementers of the 'Next Stop: MUM' built on-line platform for women seeking mental health support in the postpartum period. With this on-line formula women seeking postpartum support can independently and anonymously self-assess the severity of postpartum depression symptoms and quickly receive feedback. If a disturbingly high result is obtained, woman is given the opportunity to take advantage of free psychological consultations at the place of her residence or online.

Women via on-line self-assessment are screened with the Edinburgh Postnatal Depression Scale (EPDS) which is a short (10-item), self-reporting tool that was designed by Cox et al. [25] to assist health professionals in detecting symptoms of PPD. The maximum score to be obtained in this scale is 30 points and the more points a woman receives, the more severe the depression symptoms can be suspected. Two cut-off points were assumed for EPDS: 10–11 points are interpreted as slightly increased severity of PPD symptoms, whereas 12 or more points indicate a significant increase in PPD symptoms (requiring extended clinical examination).

The protocol of this study was approved by the Ethics Board for Research Projects at the Institute of Psychology, University of Gdansk, Poland (decision no. 20/2019). Ethics committee indicated that all adult patients have been deemed ethically and medically capable of consenting for their participation in the research presented in this manuscript. The participants of the study were informed that by completing the electronic version of the EPDS questionnaire, they also consented to participate in the study. The Ethics Board for Research Projects (ethics committee) approved this procedure in above mentioned decision no. 20/2019.

Participants

The study analysed questionnaires completed on an on-line platform by 139 women in two time periods:

- October 1st - November 10th, 2019: 61 participants, age: M = 31.14, SD = 3.70 years,
- February 20th - March 30th, 2020: 78 participants, age: M = 31.74, SD = 5.06 years.

Due to the assumption about the anonymity of the study (top-down ministerial guideline), no additional data regarding the surveyed women besides sex and age was collected. All participants were women and groups (October 1st - November 10th, 2019 vs February 20th - March 30th, 2020) did not differ in age.

Statistical analysis

We used SPSS Version 25.0 for statistical analyses. First, data was tested for normality using a Kolmogorov-Smirnov test. Further, to compare the results in EPDS between two groups we used an independent *t* test. Finally, we described the frequencies regarding the classification of clinical results (with cut-off points described above).

Results

The Kolmogorov–Smirnov test revealed that the distribution of the overall scores in EPDS was not significantly different from the normal distribution. Therefore, a decision was made to use the parametric test in further analysis. Independent *t* test indicated on a significant difference ($t = -1.984$; $p = .025$) in the overall scores of the postpartum depression symptoms among women who filled-in the on-line form in the period of February 20th - March 30th, 2020 ($M = 15.71$; $SD = 6.23$; $n = 78$) compared to the measurement from the neutral period of the October 1st – November 10th, 2019 ($M = 13.56$; $SD = 6.46$; $n = 61$). The details are presented on Fig. 1.

The distribution of results was analysed in terms of their significance for subsequent expanded clinical diagnosis. The results of 21.3% of women performing the EPDS scale on our website in the neutral period (October 1st – November 10th, 2019) and 16,7% of those who filled in the scale at the beginning of the epidemic crisis (February 20th - March 30th, 2020) fell within the normal range (0–9 points). Slightly increased results (10–11 points) were obtained by 13,1% of women in the neutral period and 8,9% of women at the beginning of the epidemic crisis. Increased results (12 points and more), that require extended clinical examination, were obtained by 65,6% of women filling in the scale between the October 1st and November 10th, 2019 and by 74,4% of women who completed EPDS on our website between the February 20th and March 30th, 2020.

Discussion

This study investigated the severity of postpartum depression symptoms among women seeking mental health support at the beginning of the epidemic crisis in Poland. We assumed that the postpartum period is a particularly difficult moment (among others because of the psychological transition to the new role - a parent), which is often associated with mood disorders, and the beginning of covid-19 epidemic might have been an additional risk factor for the severity of postpartum depressive symptoms in women. Intrigued by the increased demand for mental health support from recipients of the project ‘Next Stop: MUM’ we decided to verify whether women seeking support at the beginning of the epidemic received higher result in the screening assessment of the PPD symptoms than women seeking support at neutral (non-epidemic) period. Our short study revealed a significantly greater severity of PPD symptoms among

the first mentioned group. This observation is consistent with earlier reports [9, 10] that indicated on a greater severity of depression symptoms among pregnant women during covid-19 epidemic. It can therefore be concluded that the epidemic crisis is associated with intensification of mental health difficulties throughout the whole perinatal period (pregnancy and postpartum).

We assumed that concerns about the exposure to COVID-19 along with the confusion, panic, government's recommendations of a social distance, the experience of isolation, stressors of financial destabilization, can exacerbate depression symptoms in new-mothers. The severity of depressive symptoms may also be associated with limited access to support sources, such as primary healthcare or social support, which women usually use to strengthen psychosocial resources and promote recovery. Although, physical distancing and home isolation is important in the postpartum during epidemic in order to control the spread of the virus, yet it limits the access to the resources that women profit in the postpartum period. It therefore requires some re-organization of the existing mental health support offered to women in the postpartum period.

Based on the literature review, we prepared recommendations for medical staff, women and their families, as well as policy which can be divided into immediate actions as well as long-term strategic programs:

1. In the lack of / limited number of postpartum midwifery patronage visits, it is important to inform about perinatal prevention of mental health during woman's hospital stay, e.g. by including information on the importance of monitoring the severity of depression symptoms after delivery on the discharge form. It is also important to inform about the local support system i.e. support groups in social networks for women in the postpartum period, safe forms (e.g. remote) of psychiatric and / or psychological consultation during epidemic.
2. It is also important for medical staff to be able to inform mothers about the prevalence of postpartum depression in order to minimize fear and social stigma associated with postpartum emotional difficulties as well as pointing out that caring for mental health in the postpartum period may be particularly important during epidemic crisis. Women may not be willing to provide information about their mental state during their stay in the maternity ward (e.g. due to fears of social stigma or possible consequences in the form of a "separation" from the child if such symptoms are revealed). It is also worth noting that many women are not willing to seek help in medical facilities after delivery because of concerns about the exposure of themselves or their child to covid-19. In such situations it is worth to provide a link to an internet platform where new mothers can test the severity of depressive symptoms and receive guides how to take care of postpartum mental health (point 4 below). Prevention and early intervention are the basis for effective prevention of mental illness and thus it is worth to consider the most effective ways of reaching people in high risk who need mental health support during epidemic.
3. Despite the significantly limited availability of services during epidemic crisis, online resources and treatment via telemedicine are gaining popularity. It has been proven so far that psychological online services are nearly as effective as direct assistance [26, 27]. Therefore, it is worth to encourage women to contact professionals - even during pandemic - when they notice disturbing symptoms. It

may be helpful to ensure woman that the meetings can take place in a safe formula e.g. via on-line / telephone consultation or with extreme caution for direct visits. Ensuring women with possible and safe ways of support can reduce their anxiety.

4. Many women give up psychiatric consultations during pregnancy and after delivery due to concerns about the rapid impact of antidepressants on the fetal / child. This also applies to women who undergo chronic treatment, and who - in case of pregnancy - often discontinue medication without psychiatric consultation. Thus, it seems important to promote varied treatment methods for perinatal psychiatric disorders and indicate the actual effects of using medications during pregnancy and in the postpartum period [28, 29]. It also seems important to inform women about seeking information in reliable sources (e.g. during psychiatric / psychological consultations) not in unreliable sources e.g. random websites, Internet forums. This seems particularly important during the epidemic, when women in the postpartum period often limit visits to medical facilities only to those which are obligatory.
5. Increased depressive symptoms may be a part of an adaptive response to an extraordinary stress and psychotherapy techniques such as those based on the stress-adaptation model might be helpful. Women in the postpartum period can also benefit from some lifestyle changes focused on the daily routine adapted to the new pandemic reality. Such a self-care daily program can be based on the NEST-S principles: Nutrition, Exercise, Sleep, Time for Self, Support [30, 31], in the form in which it enables mothers the care of a newborn baby. The dissemination of knowledge about NEST–S principles is important and there is still much to be done: for example, research show [32] that most of the pregnant women are reluctant to exercise or only lightly active, what can also last in the postpartum period. Physical activity is relatively costless intervention which can improve maternal wellbeing [29]. Yet, for those women presenting with more severe mental health problems psychiatric treatments should be provided.
6. Lockdown in many cases can create new possibilities of co-parenting: working from home and social distancing can enable both partners to engage in a childcare: fathers working from home can have more opportunities to support women emotionally – and that can be an important factor in adjusting to motherhood [33]. Additionally, partners who stay at home during the day also have a greater opportunity to observe changes in the mental state of woman, talk about it and seek help or support outside. Thus, it is also worth to allocate some space on mental health support platforms for women where information for fathers (and other family members) about how to support women in postpartum during an epidemic would be included.
7. According to Xiang, Yang and Li [34] in any biological disaster, themes of fear, uncertainty, and loss are common and may act as barriers to appropriate medical and mental health interventions. The access to mental health assessment, and availability of support, treatment, and services is crucial during epidemic crisis. Due to the possible negative consequences of postpartum depression for both the mother and her child, it is important for a woman to receive immediate help / support. Thus, it is worth to create a quick path for the access to professionals for women in the postpartum period who struggle with symptoms of mental health disease e.g. postpartum depression. The implementation of treatment at an early stage of symptom development may shorten the time of

therapy and allow women to fully enjoy motherhood, even in such difficult circumstances as the covid-19 epidemic.

8. We believe that in the current epidemic situation, a very important element of psychological / psychiatric consultation is to support women in the possibility of thinking about painful emotions inscribed in this particularly difficult transition to motherhood. In practice, this means above all listening carefully to patients who often do not have the opportunity to freely share their experiences deviating from social expectations: doubts about their own competences in protecting the child and themselves from exposure to the virus, the experience of losing important moments of early motherhood due to restrictions associated with a pandemic (limited mobility, leaving home, meetings with family and loved ones). Concerns about subsequent months and a lack of predictability can increase mothers' sense of stress. When women are unable to talk (and perhaps think) about such feelings, professionals can support this skill by asking questions about the type of experience (of loss, stress, doubts) emphasizing their normality in such a situation. In this way professionals can support the mentalizing skills of patients in thinking about experienced losses and the complexity of feelings inscribed in early motherhood.

Conclusions

Our research indicates that during the epidemic crisis, women in the postpartum period may be in greater need for mental health support. This is demonstrated by the increased severity of depressive symptoms among women seeking support during epidemic crisis compared to the neutral (pre-epidemic) period. Therefore, it seems important to design solutions for the increased emotional needs of women in the perinatal period in the case of the probable second wave of covid-19.

Abbreviations

SARS – severe acute respiratory syndrome

EPDS - Edinburgh Postnatal Depression Scale

PPD - Postpartum depression

COVID-19 - Coronavirus Disease 2019

Declarations

Ethics approval and consent to participate

The protocol of this study was approved by the Ethics Board for Research Projects at the Institute of Psychology, University of Gdansk, Poland (decision no. 20/2019). Ethics Board for Research Projects at the Institute of Psychology, University of Gdansk indicated that all adult patients have been deemed ethically and medically capable of consenting for their participation in the research presented in this

manuscript. The participants of the study were informed that by completing the electronic version of the EPDS questionnaire, they also consented to participate in the study. The Ethics Board for Research Projects (ethics committee) approved this procedure in above mentioned decision no. 20/2019.

Consent for publication

Not applicable.

Availability of data and materials

The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.

Competing interests

The authors declare that they have no competing interests.

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Authors' contributions

MC-D: the conception, MC-D and TW-K: design of the work; MC-D and TWK: the acquisition and analysis, MC-D, TW-K and M-L interpretation of data; MC-D, TW-K and M-L have drafted the work and revised it.

All authors have read and approved the manuscript.

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Figures

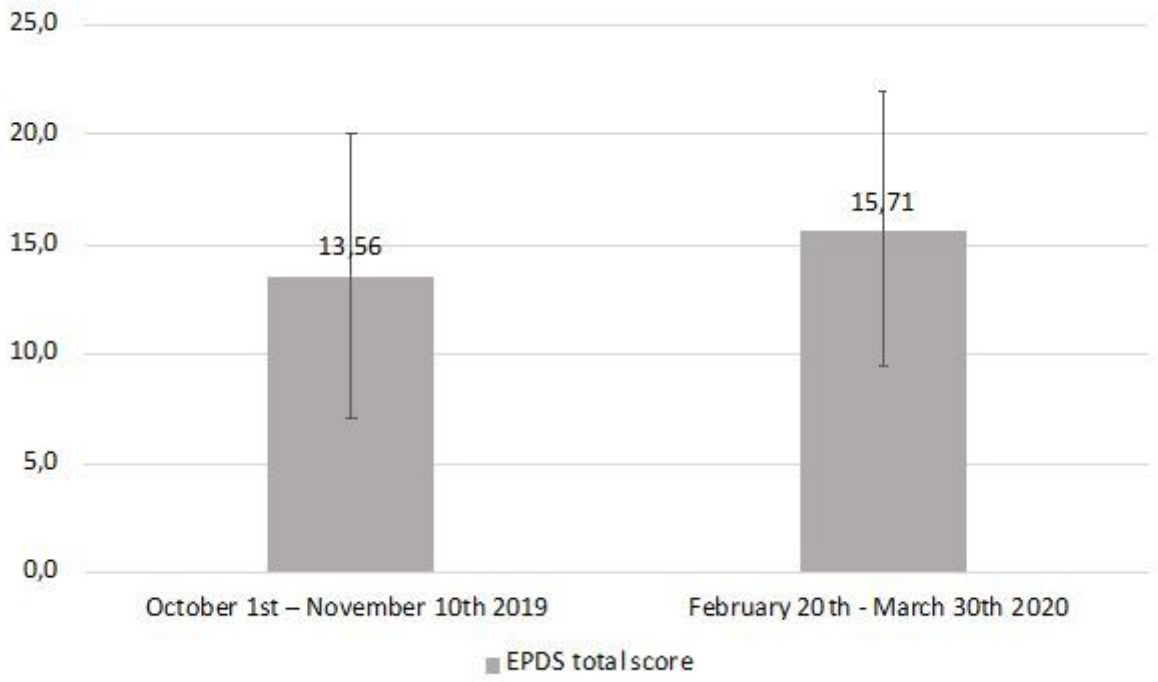

Figure 1

The differences in the severity of postpartum depression symptoms (measured using the EPDS scale) between two measurements: before covid-19 epidemic (the October 1st – November 10th, 2019) and at the beginning of the covid-19 epidemic (February 20th - March 30th, 2020).

Supplementary Files

This is a list of supplementary files associated with this preprint. Click to download.

- EPDSquestionnaire.docx