Quarterly Journal Fides et Ratio
Issue 1(53)2023, ISSN 2082-7067, Pages 27-38

Motherhood during the COVID-19 pandemic in Poland – qualitative studies

Macierzyństwo w czasie pandemii COVID-19 w Polsce – badania jakościowe[1]

https://doi.org/10.34766/fetr.v53i1.1092

Oksana Stępień[a], Magdalena Dębska[b], Julia Klimanek[c], Beata Szlendak[d], Joeri Vermeulen[e], Grażyna Bączek[f] ✉

[a] *Oksana Stępień[(1)], https://orcid.org/0000-0002-3993-5458*
[b] *Magdalena Dębska [(1)], https://orcid.org/0000-0003-2681-9965*
[c] *Julia Klimanek[(2)], MSc, RM, https://orcid.org/0000-0002-0010-0963*
[d] *Beata Szlendak[(3)], PhD, RM, https://orcid.org/0000-0002-8227-8166*
[e] *Joeri Vermeulen [(4,5)], MA, RM, https://orcid.org/0000-0002-9568-3208*
[f] *Grażyna Bączek[(1,6)], PhD, RM, https://orcid.org/0000-0001-7897-9499*

1. *Student Scientific Circle of Midwives, Department of Gynecology and Obstetrics Didactics, Medical University of Warsaw, Poland*
2. *"Żelazna" Medical Center LLC, Poland*
3. *Foundation for Supporting Midwives, Poland*
4. *Midwifery Department, Erasmus Brussels University of Applied Sciences and Arts, Belgium*
5. *Department of Public Health, Biostatistics and Medical Informatics Research group, Vrije Universiteit Brussel (VUB), Brussels, Belgium*
6. *Department of Gynecology and Obstetrics Didactics, Medical University of Warsaw, Poland*

✉ *corresponding author: grazyna.baczek@wum.edu.pl, tel. + 48 603 500 337*

Abstract: *Aim:* To analyse the impact of the COVID-19 pandemic on women experiencing motherhood in the areas of perception, adaptation and assessment of the pandemic situation. *Material and method:* A qualitative study was conducted using semi-structured interviews. The interviews were conducted in a group of 25 women aged 22-41 who gave birth during the pandemic. Most of the respondents live in the city with more than 500,000 inhabitants, and have a higher education. In most cases, the research material was collected by means of face to face interviews, and in the case of 9 women, using remote techniques. *Results:* The results do not demonstrate a decreased interest in motherhood during the COVID-19 pandemic. Most of the respondents had planned their pregnancy and complied with the sanitary regime. Online prenatal education turned out to be a good solution for the study group at the time of restrictions. The number of antenatal visits was not increased as compared to previous pregnancies. Five respondents were considering a homebirth. The respondents complained of reduced well-being, which resulted in the recurrence of depressive moods. Most concerns were related to the reliability of tele-counselling and the availability of the doctor and partner during childbirth. *Conclusions:* The analysis of the respondents' answers leads to the conclusion that the COVID-19 pandemic had a significant influence on the mental state of women giving birth at that time. The most difficult aspect for the respondents was the prohibition of giving birth in the presence of family, no mental support and feeling lonely both during the pregnancy and after childbirth at the time of quarantine. The COVID-19 pandemic did not have a significant effect on the perception of motherhood by women or on their reproduction plans.
Keywords: motherhood, pregnancy, prenatal education, COVID-19 pandemic, qualitative studies

Abstrakt: *Cel pracy:* Analiza wpływu pandemii COVID-19 na kobiety doświadczające macierzyństwa w obszarach postrzegania, adaptacji i oceny sytuacji pandemii. *Materiał i metoda:* Badania jakościowe przeprowadzono metodą sondażową z wykorzystaniem techniki wywiadu częściowo ustrukturyzowanego. Wywiady przeprowadzono w grupie 25 kobiet w wieku 22 - 41 lat, które urodziły w czasie pandemii, w ciągu 10 miesięcy od daty porodu. Większość badanych pochodzi z miast powyżej 500 tysięcy mieszkańców oraz posiada wyższe wykształcenie. Materiał badawczy w większości przypadków zgromadzono drogą bezpośrednich spotkań, w przypadku 9 kobiet za pośrednictwem technik zdalnych. *Wyniki:* Wyniki nie świadczą o spadku zainteresowania macierzyństwem w okresie pandemii COVID-19. Większość badanych planowała ciążę oraz przestrzegała zasad reżimu sanitarnego. Dla badanej grupy edukacja przedporodowa online okazała się dobrym rozwiązaniem na czas wprowadzonych obostrzeń. Liczba wizyt kontrolnych w czasie ciąży u lekarza ginekologa nie uległa zwiększeniu w porównaniu z poprzednimi ciążami. Pięć respondentek rozważało poród w domu. Respondentki skarżyły się na obniżone samopoczucie, które skutkowało nawrotem nastrojów depresyjnych. Najczęstsze obawy dotyczyły rzetelności teleporad i dostępności lekarza oraz obecności partnera przy porodzie. *Wnioski:* Analiza wypowiedzi respondentek pozwala wnioskować, że pandemia COVID-19 miała znaczący wpływ na stan psychiczny kobiet rodzących w tym czasie. Najtrudniejszy dla badanych kobiet był brak możliwości porodów rodzinnych, brak psychologicznego wsparcia oraz osamotnienie zarówno w ciąży jak i po porodzie w trakcie trwania kwarantanny. Okres pandemii COVID-19 nie miał większego wpływu na postrzeganie macierzyństwa przez kobiety i na plany prokreacyjne.
Słowa kluczowe: macierzyństwo, ciąża, edukacja przedporodowa, pandemia COVID 19, badania jakościowe

1 Artykuł w języku polskim: https://www.stowarzyszeniefidesetratio.pl/fer/2023-1Step.pdf

Background

On 14 March 2020, the state of COVID-19 pandemic was officially announced in Poland. The life of all people changed dramatically. A number of restrictions were introduced: prohibition of organising events and other gatherings, limits of customers in restaurants, culture centres, churches, sports facilities, and restrictions in travelling abroad. Their aim of these measures was to prevent a further spread of the COVID-19 virus (Ordinance of the Minister of Health of 20 March 2020). The restrictions and limits introduced affected each sector of economy and everyday life. It was necessary for all to adapt to the new restrictions, rules and bans.

Available studies indicated that the quality of life of Polish people was reduced at that time. The citizens of Poland struggled with closed work establishments, reduced state of public and personal finances and with restrictions in transport, offices and trade facilities (Cybulska et al., 2020).

A growing number of cases of depression and anxiety disorders were reported to psychologists and psychiatrists. A study of the first quarantine in the world taking place in China was aimed to determine the quarantine impact on the mental state, level of anxiety, depression and stress in the initial stage of the COVID-19 outbreak. The survey was shared via the Internet. Information on demographics and physical symptoms occurring in the last 14 days was collected, and the mental health was assessed with the Depression, Anxiety and Stress Scale – 12 items (DASS-21). 1.210 subject participated in the study: 53.8% of respondents assessed the psychological effect of the pandemic on the well-being as moderate or severe; 16.5% of respondents reported moderated to severe symptoms of depression; 28.8% reported moderated to severe symptoms of anxiety; and 8.1% reported moderate to severe level of stress (Sokół-Szawłowska, 2020).

A higher level of domestic violence was equally observed. The study included 342 parents (62% mothers) of children aged 4-10 years living in the United States who completed the online questionnaire on their experiences with COVID-19, as well as a questionnaire concerning the handling a family crisis (F-COPES scale). Assessment of the results included a statistical analyss of violence history, depression symptoms of parents, their financial stability, and age and sex of both parents and children. Parents who lost their job, suffered from a severe depression and had a history of mental violence towards their children, were more likely to use mental violence during the COVID-19 pandemic (Lawson, 2021).

Weakening of family relations was observed during home quarantine. Anxiety and stress of the Poles increased. At the turn of March and April 2020, when more restrictions were introduced, an online survey was conducted among1.742 participants. In the early phase, the epidemic was a strong stressor for the majority of the study participants (75%). Increased symptoms of adaptation disorders (constant preoccupation with stresses and impaired functioning) was reported by as many as 49% of the respondents. Women and respondents with no full-time job reported more severe symptoms of disorders. Symptoms of generalized anxiety was reported by 44% of all respondents, while depression was reported by 26% (Dragan, 2020).

Consequences of the COVID-19 pandemic are especially noticeable in the health care system. Hospitals were overcrowded and the medical personnel was not able to provide assistance to all patients. Many hospital employees got COVID-19 and stayed in quarantine. For this reason, there was a growing problem of an insufficient number of health care professionals (Bukowski et al., 2020). From March 2020, the primary health care functioned only in the form of tele-counselling. As a result of limited possibilities of diagnosis, patients did not start treatment when symptoms occurred. The number of hospital admissions of patients in a severe condition much increased. In 2020, the number of deaths in Poland exceeded 485,000. This is 67,000 deaths more than in 2019 (GUS, 2020).

The COVID-19 pandemic also affected women in the reproductive age, who planned pregnancy. Many women reduced their visits at specialists at the time of the pandemic. Being worried about their own health, as well as the health of their unborn

babies, they resigned from their scheduled visits during pregnancy. In a study including 10,257 women who gave birth in the first year of the COVID-19 pandemic (between March 2020 and February 2021), one in four respondents (26%) resigned from some antenatal visits at the doctor attending pregnancy, from some laboratory tests or cardiotocography test (CTG) (Report of the foundation "Rodzić po Ludzku", 2021).

Internationally, one of the biggest concerns for women discussed in social media in spring 2020, was the banning of birth partners from being present at the birth (Vermeulen et al., 2020). . Due to a high risk of contamination, giving birth in the presence of a relative was suspended in Poland for a period of several months. Women were concerned with lack of emotional and physical support during childbirth. A decision in this respect was made by the hospital administrator – after individual assessment of a given hospital conditions enabling isolation of the women in labour and their relatives from other patients (Ordinance of the Council of Ministers, 2020). This resulted in an increased level of anxiety, stress, and pain intensity during childbirth, and an increase in caesarean section rates. A report from Italy on 42 births by women infected with COVID-19 demonstrated that a vaginal (natural) birth was possible in 57% women, and caesarean section was performed in 18 women (43%), but in 8 of them the reason was unrelated to COVID-19 (Studniczek et al., 2020).

Another, similarly important aspect of this situation, is a high decrease in the number of births in Poland. In January 2021, 25,000 of live births were recorded. This result is lower by 25% in comparison with the previous year (Cierniak-Piotrowska et al., 2021). Women are afraid to decide on motherhood in such uncertain times as during the COVID-19 pandemic. A study conducted by researchers from the NYU Grossman School of Medicine concerning a group of 1,179 women in New York revealed that one third of those who considered pregnancy before the pandemic, abandoned plans of reproduction (Kahn, 2021). An Irish study of 70 women conducted in April 2020 showed that after a month of forced isolation and resulting loss of contact with friends and family, 44% of pregnant women had a depressed mood, and 4% had worse relations with their partner (Milne, 2020).

These phenomena were an inspiration to undertake studies in the area of perception, adaptation and assessment of the COVID-19 pandemic by women experiencing motherhood.

1. Material and method

The authors chose a qualitative approach to capture experiences and emotions of women who labour took place during the COVID 19 pandemic in Poland. The strategy of data collection was based on a predetermined semi-structured questionnaire. Then, a qualitative analysis of significant respondents' opinions was conducted, focusing on presented facts and own wording of participants, without resorting to previous frameworks and theories (McIntosh & Morse, 2015). Qualitative studies were conducted by authors from 1 March to 17 May 2021. The research technique involved a one-to-one semi-structured interview lasting about 1-1.5 hours. When more details were needed, the study participant was encouraged with the question: "Can you elaborate on that?". The project was approved by the Bioethics Committee of the Medical University of Warsaw, Poland (AKBE/40/2021) on 15.03.2021.

The interviews were conducted at a convenient time and place indicated by the study participants. Previous to the interviews, both researchers were additionally trained in qualitative study collection and analysis (Irvine et al., 2013; McIntosh and Morse, 2015; Morse, 2006; Sandelowski, 2000), by an experienced tutor. Data were anonymised, and the respondents were assigned consecutive numbers (from 1 to 25).

The study group included 25 women who gave birth within 10 months of the study initiation. The inclusion criterion was an uneventful childbirth during the COVID-19 pandemic.

The respondents were recruited via internet fora and out of patients of St. Sophia Specialist Hospital in Warsaw, Poland, as well as Polikarp Brudziński Children's Clinical Hospital in Warsaw, Poland.

Tabel 1. Characteristics of participants.

Participant code	Age (years)	Education (no, secondary, higher)	Marital status (single, cohabiting, married)	Residence (city, rural area)	Pregnancy planned before the pandemic (yes, no)
1.	26	Secondary	married	city	no
2.	41	Higher	single	city	yes
3.	24	Secondary	single	city	no
4.	29	Higher	married	city	yes
5.	34	Higher	single	rural area	yes
6.	32	Higher	married	city	yes
7.	24	Higher	married	city	no
8.	28	Higher	married	city	yes
9.	27	Secondary	married	city	yes
10.	26	Secondary	married	rural area	no
11.	22	Secondary	single	city	yes
12.	32	Secondary	married	rural area	yes
13.	30	Higher	married	city	yes
14.	26	Higher	married	city	yes
15.	22	Secondary	single	city	no
16.	32	Higher	married	city	yes
17.	27	Higher	married	city	yes
18.	33	Higher	married	city	no
19.	28	Higher	married	city	yes
20.	28	Higher	married	city	no
21.	28	Higher	married	city	yes
22.	27	Higher	married	city	yes
23.	32	Higher	married	city	yes
24.	35	Higher	married	city	yes
25.	27	Higher	married	city	yes

In most cases, the research material was collected by means of face to face interviews, and in the case of 9 women, by remote techniques, using the Teams platform.

The respondents were inhabitants of cities with more than 500.000 inhabitants, aged 22 to 41 years, mostly married and higher educated. 17 pregnancies had been planned (details in Table 1).

The questions referred to the issue of perception, adaptation and assessment of the COVID-19 pandemic situation by women after childbirth. The research tool was a script of a semi-structured interview containing 15 problem areas on which the respondents could freely express their opinions.

Results obtained in the course of registering the respondents' answers on a dictating machine were recorded, and then coded with full anonymization. The authors grouped the responses by topic in accordance with the predetermined research problems. The obtained texts were analysed with regard to quality, frequency and intensity of the respondents' opinions and assessments. The contents analysis was divided into a few stages. In the first stage, individual researchers analysed particular answers, and in the next stage, they compared the results of the analysis. During the entire process of data analysis, regular meetings of the team were held to review the topics, in order to ensure precision of results and agree on the final version of the analysis.

The research problems referred to e.g. planning motherhood, perinatal care, course of pregnancy and labour, participation in prenatal education (online), concerns related to the pandemic, well-being and relations in the family.

2. Results

The main problem which occurred the most frequently in the answers of the 25 respondents who gave birth during the COVID-19 pandemic involved difficulties related to social isolation. The primary issue was lack of contact with medical care and lack of contacts with friends and family who could help in the difficult time of pregnancy, labour and puerperium.

On the basis of the content analysis, 4 topics were distinguished: "Isolation versus medical care during the COVID-19 pandemic", "Social isolation", "Prenatal education and experience of labour", "Experience of motherhood during the pandemic".

2.1. Isolation versus medical care during the COVID-19 pandemic

The respondents' answers were dominated by the subject of isolation and lack of contact with other people. Limited access to public recreational facilities, such as swimming pools, fitness or yoga centres. Lack of possibility of going to the restaurant, cinema or theatre had a destructive effect on the mental state:

> *The pandemic is definitely a challenge, as far as mental state is concerned. It is hard to take care of the child the whole day, without an opportunity to contact other people, without a chance to go to different places, etc. I miss the opportunity to go to the swimming pool or to places for young mothers with children very much. My daughter had practically no contact with other children for 8 months of life* [8].

The majority of respondents pointed to the problem of isolation and lack of contact with the loved ones during their stay at the hospital, where sanitary restrictions related to the COVID-19 pandemic were implemented. The ban on visits during the most important time of puerperium was one of the most difficult moments of motherhood for the respondents:

> *After birth, no visits of the loved ones, which means that during the worst first days the woman is by herself and with a little child (the staff members certainly help but they are strangers)* [1].

A vast majority of the respondents declared that despite the pandemic, their schedule of visits at the gynaecologist during pregnancy did not change:

> *Of course, I took all the necessary examinations and visits, but I would prefer to limit the visits at the hospital to a minimum* [10].

> *I had all the necessary visits recommended during pregnancy* [15].

The majority of respondents claimed that during pregnancy, social isolation caused by the pandemic was not as bad. The time after childbirth was much more difficult, when they missed seeing their friends who had experience in motherhood.

> *It seems to me that the more difficult time is after pregnancy, because during pregnancy you can isolate (...), but after pregnancy, when the child is born, the presence of older, more experienced women was very helpful* [4].

Most respondents emphasised the problem of no access to medical care after childbirth. For young mothers, taking care of an infant without a possibility to consult a paediatrician was a mental burden. Online medical visits and presenting skin problems of the child by means of pictures was a discomfort for a mother, who did not see good effects of remote treatment. The women appreciated real visits of midwives, which reduced their level of anxiety related to the responsibility for the infant's health, and they received specific instructions which brought good effects:

A paediatrician is available only for vaccination visits, and other problems are solved by remote contact. For example, my daughter had skin problems when she was 2 months old (which ultimately turned out to be infantile acne) and I missed the opportunity to visit a paediatrician to see my daughter very much. The diagnosis was made on the basis of pictures, and probably that was why it was incorrect. Finally, a midwife came for a patronage visit and said that it was acne, she instructed me to withdraw all the ointments, and the problem disappeared [8].

The analysis of the respondents' answers shows that most of them felt dysphoria, no desire for life due to fear of infection, and lack of possibility to meet family or friends:

I am quite strong mentally, but there are certain moments when I am tired, and I would like to go out to see my friends, do the shopping, go to the swimming pool, gym, and I can't. Generally, it's not bad, but I had a bit different expectations as to my first months with the baby, I miss going out to see other people [13].

The respondents expressed a need of mental support, which they could not receive in the form of everyday encounters, contacts and chatting with friends or family due to quarantine. Difficult access to specialists made it impossible for the women to fully achieve mental comfort. An additional burden was that being pregnant they felt responsible for the health of their unborn baby:

First of all, I needed a lot of mental support. Pandemic is a time when everybody worries about their own health, and I had to worry about the health of two people [16].

Dynamic spread of the COVID-19 pandemic resulted in a situation when decisions on the health safety of humans and related restrictions were announced from day to day. Lack of reliable information was a problem for the women. In that situation, it was very difficult to plan anything, and new, surprising information induced stress and tension:

First of all, reliable information – the worst scenario is when I have questions which nobody could answer, and I don't know what to do – and this, unfortunately, happened a lot. It would be good if there were some predictability–when I went to hospital for childbirth, I was convinced that there were still births in the presence of family members, but I learned that since the previous day it was not possible anymore [6].

2.2. Social isolation

A few women claimed that pandemic restrictions resulting in remote work had a positive influence on relation with their husbands, who did their professional work at home:

It was very good that me and my husband finally had more time for each other. It was a wonderful time. Now, with two little kids, we do not have much time to cherish our marriage [20].

Negative consequences of social isolation were related to difficulties in maintaining contact with a more distant family. Most women resigned from visiting older family members due to quarantine or for fear of infection. Although most of the respondents resigned from meetings in a large family circle, they still tried to maintain everyday relations and not to lose contact with their loved ones, to contact by phone, thus taking care of mental hygiene.

We practically see nobody, we have sick parents that we do not want to expose. Our son hardly knows his grandparents. We feel sorry, since we often had family gatherings in the past [18].

I tried to talk to my loved ones a lot. We often hear of a higher incidence of depression due to constant isolation [10].

Most respondents tried to care for their physical hygiene, being mindful of their own and their child's health. By maintaining a healthy diet, walking in the fresh air or doing exercises conducted via social media, they ensured that lack of movement in isolation did not affect their health:

I go for a walk every day, I spend three or four hours outdoors, because my son sleeps best in the stroller, and this is my way, and sometimes we do some trainings available on YouTube with my husband, it's real fun (...) [4].

All women cared for themselves by complying with the sanitary regime, they wore masks, regularly disinfected their hands and avoided contact with other people:

I avoided mass events, used disinfectants each time I went out to a public place, and I limited encounters with my friends and family [3].

2.3. Prenatal education and experience of labour

For 16 respondents, online prenatal education was a good and safe form of preparing for childbirth during the COVID-19 pandemic. Staying at home, reducing contacts with other course participants and saving time to reach the appointed destination was a good solution:

It meets my expectations, it's a convenient solution. You don't have to go to the appointed places [13].

A few respondents had different opinions claiming that the online form did not meet their expectations, preventing them from full participation in practical classes.

This can't replace stationary classes. There is less emphasis on practical classes. It's easier for the participants to get distracted [5].

Answers of 20 respondents mostly included concerns related to becoming infected with COVID-19 virus, and resulting impossibility to give birth to the baby in the presence of the child's father. Five women had to face a situation when their partner was not let into the hospital to participate in the childbirth. One woman reported:

I feared a childbirth alone the most, and my fear came true [20].

An alternative to a birth with a family member was to plan a homebirth. Five women were considering such a solution, but eventually none of them decided on a homebirth, motivating their decision with lack of feeling of security at home:

In hospital, with the whole personnel behind a wall (and the available equipment), I felt safer than at home with a midwife or my husband [13].

For 21 of the study women, the presence of loved ones (the child's father) during the birth was crucial and desired. Media reports about the necessity to introduce quarantine in hospitals and prohibiting participation of the father in his child's birth were very stressful for the pregnant women. In such circumstances, women appreciated participation of their partner in the birth, even if earlier it was not so important for them.

I was shocked with such information on TV, when hospital prohibited letting in partners (...) [10].

In the past, before pregnancy, I was not sure if I wanted my husband to be present during birth. However, I changed my mind during pregnancy. Looking from today's perspective, I believe that this was the best decision.

My husband was tremendously supportive for me, and I can't imagine how I would have managed without him. [19].

2.4. Perception of motherhood during the COVID-19 pandemic

17 women declared that the COVID-19 pandemic had no significant effect on their decision to have a baby. The women declared their willingness to make procreation plans partly because of the fact that the situation of pandemic restrictions allowed the baby's father to work from home, which directly translated into his greater involvement in home duties, including assistance in caring for the child:

I actually planned pregnancy when there was no pandemic yet, but if it had been otherwise, I would have decided to have a baby, anyway. On one hand, these are difficult times, and it is harder to get access to doctors. On the other hand, thanks to remote work, my husband is able to participate in the child's development, which for sure would be different before the pandemic – he would return home after the whole day at work, when the baby would go to sleep. [8].

Seven respondents declared that the decision about the next pregnancy taken during the COVID-19 pandemic was considered much longer than in the case of previous reproduction plans made before the pandemic. The main factor deciding about postponing a decision to have another child was a concern about one's own and the child's health:

I think that I would hesitate a little, due to my own and the child's health. If I could decide and wait to become a mum, I think I would wait until the end of the pandemic [10].

17 women declared that the risk of infection and the isolation during the COVID-19 pandemic did not affect their perception of motherhood. The respondents who gave birth during the COVID-19 pandemic, despite difficulties with access to medical care and worry about the health of oneself and the family, did not change their attitude to motherhood:

I guess it did not change [the vision of motherhood due to the pandemic), *you must have a rational approach to everything.* [15].

Eight respondents perceived motherhood as challenge, and the time of pandemic as a difficult period, when mother after birth has to fend for herself:

The pandemic generally makes you aware how important self-help is – it is important to fend for oneself (...) [6].

3. Discussion

Pregnancy is a natural physiological process in the woman's life. It includes the totality of changes occurring in the body in that period. The COVID-19 pandemic makes that both medical personnel and pregnant women look differently at this physiological process. An important fact in the COVID-19 pandemic is that pregnant women are in the group of risk of a more severe course of infection with H1N1 influenza viruses (Szenborn et al., 2010). Subsequent studies show that pregnant women infected with COVID-19 are at a risk of getting more severely ill from the disease (Duszyński et al., 2020 and Nowakowska et al., 2020). The most common symptoms of COVID-19 include fever, dry cough, dyspnoea, muscle pain and fatigue. Patients also develop acute respiratory failure (Chen et al., 2020). Currently, there are regularly updated recommendations concerning obstetric procedures in the case of COVID-19 infection in pregnant women available. As the work on a COVID-19 vaccine progressed, pregnant women were considered as potential participants of clinical trials, unless the risk outweighed potential benefits (Schwartz et al., 2020). Ultimately, vaccination is recommended for pregnant women.

Our own study concentrated on the experience of young mothers who gave birth during the COVID-19 pandemic. In line with a Belgian study, exploring experiences of pregnant women and new mothers during the COVID-19 pandemic, we observed diverse mixed and interconnected experiences (Vermeulen et al., 2022). Most of the respondents planned pregnancy despite the pandemic. Their concerns caused by the pandemic were primarily related to the child's health, limited access to specialists and no contact between people. The respondents readily accepted a remote form of education as part of childbirth classes. When preparing for childbirth, they additionally used books and internet resources.

Similar issues were studied by Studniczek et al., who claimed that if a woman receives no mental support from her beloved ones, there is an increased risk of difficulties and a decreased probability of coping with them. Women who gave birth during the pandemic require close observation for risk factors and symptoms of emotional and mental disorders. They also need much more empathy with regard to their emotional experiences (Studniczek et al., 2020).

The problem of stress experienced in the course of pregnancy was also analysed by Kupryjaniuk et al. Chronic stress felt by the mother affects the central nervous system of the foetus, as well. It may also translate into reduced cognitive function and increased potential emotional difficulties. On the other hand, the mechanisms supporting the mother, like cognitive-behavioural therapy and participation of the family, may translate into improved function both of the mother and the child (Kupryjaniuk et al., 2021).

Planning pregnancy during the pandemic was also analysed by Flynn et al. In their studies, 92% of 504 women planned pregnancy despite the pandemic. More than half of the women declared that COVID-19 affected their plans, and 72% of the respondents deliberately postponed conception. The women's concerns were mostly related to changes in the prenatal care and a negative effect of the virus on the mother and child (Flynn et al., 2021).

Kiełbratowska et al., investigated the subject of remote childbirth classes. Educational meetings preparing pregnant women for childbirth were conducted online during the pandemic, and were defined as a safe form, both for the medical personnel and for the pregnant women. At the same time, it was indicated that this form prepares women correctly for an active childbirth . The COVID-19 epidemic created a necessity to develop a new communication strategy in order to facilitate obstetric care and preparation for childbirth (Kiełbratowska et al., 2021).

The topic of homebirth was taken up by Cheng et al., who claimed that an interest in homebirths increased in the United States immediately after the COVID-19 pandemic was announced, and remained on a much higher level after this period (Cheng et al,. 2022). Also in Belgium a small increase in the demand for a home birth was noticed in April 2020. However in the study of Vermeulen et al., only a small proportion of women expressed the desire to give birth at home due to fear of contamination (Vermeulen et al., 2022). These findings differ from the results of our studies, where only 5 women considered a home birth. This may result from low interest in homebirths in our country. Nevertheless, as in all pandemics, the recommendation as to provide as much care as possible in the community, therefore early transfer to home after birth was promoted in the pandemic (Vermeulen et al., 2020).

The problem of the presence of a close person during childbirth was repeatedly discussed by WHO. Current guidelines expressly recommend that all pregnant women, including those with suspected, probable or confirmed COVID-19, could go through childbirth with their loved one. Women appreciate that very much, and they benefit from the presence of somebody they can trust during birth (WHO, 2020). The interviews conducted showed that 21 respondents were disappointed with the absence of an accompanying person during childbirth. They said that it was a stressful experience, and that in spite of the COVID-19 pandemic, births with the presence of a loved one should not be prohibited.

The issue of the Internet as a source of knowledge in the preparation for childbirth was studied by Stępień et al. It was indicated that modern media have a large influence on the education of society, prophylaxis and health care. For pregnant women,

the Internet may also be a place of social support, so much needed at the moment of such a big change in their life. More than half of the respondents could use the Internet freely, but they also declared using magazines in order to acquire knowledge on female diseases. The authors noticed a high increase in the use of the Internet as a source of information about pregnancy, birth and child development (from 21% in previous years to 80% at present) indicating, that the frequency of using the Internet as a source of knowledge depends on education and place of residence of respondents (Stępień et al., 2015). In our own study, the biggest role in the preparation for childbirth was played by childbirth classes and books about motherhood. The Internet, as a source of knowledge, was mentioned by 9 respondents.

Our study analysed the problem of women's well-being during the pandemic. The same aspect was analysed by Mortazavi et al., proving that the percentage of women experiencing ill-being was relatively high–64.9%. This result requires special attention. Providing care and support for pregnant women should be of high priority during the COVID-19 pandemic (Mortazavi et al., 2021). In present study, most respondents experienced a depressed mood during the COVID-19 pandemic. Some women felt no desire for life due to fear of infection, and lack of possibility to meet family or friends. A few respondents did not have a depressed mood, since they planned to spend more time at home.

Conclusions

Our study show that it is difficult to clearly define the effect of the COVID-19 pandemic on the above-mentioned aspects of women's life after childbirth.

Interest in motherhood was not reduced, and most of the women had planned their pregnancy and complied with the sanitary regime. Prenatal education in a remote form turned out to be a good alternative at the time of the COVID-19 pandemic. The number of medical visits during pregnancy did not change. A low percentage of the respondents considered a homebirth. On one hand, the pandemic brought families closer to one another, but there were situations where relations between people deteriorated. Women complained of reduced well-being and self-appraisal, leading to depressive moods. The greatest concerns were related to tele-counselling and its reliability, availability of the doctor, and absence of partner during labour.

The COVID-19 pandemic had a significant effect on the state of health, especially the mental state of the women giving birth at that time. The most difficult aspect for the respondents was the prohibition of giving birth in the presence of family, no mental support and feeling lonely at the time of quarantine.

When planning perinatal care at the time of the pandemic, one should take into account the role of emotional and informative support from the medical personnel, especially midwives.

Bibliography

Bukowski, H., Czech, M., Kozłowski, Ł., Nojszewska, E., Starczewska-Krzysztoszek, M. (2020). *Wpływ COVID-19 na polski system ochrony zdrowia*, 1-127. (from:) https://www.infarma.pl/assets/files/2021/Rekomendacje_zmian_w_polskim_systemie_ochrony_zdrowia_pandemia_COVID-19.pdf (access: 12.01.2023).

Chen, N., Zhang, L. et al. (2020). Epidemiological and clinical characteristics of 99 cases of 2019 novel coronavirus pneumonia in Wuhan, China: a descriptive study. *Lancet, 395*, 507-513.

Cheng, R., Fisher, A., Nicholson, S. (2022). Interest in Home Birth During The COVID-19 Pandemic: Analysis of Google Trends Data. *Journal of Midwifery & Women's Health, 67,* 427-434.

Cierniak-Piotrowska, M., Dąbrowska, A., Stelmach, K. (2021). *Ludność. Stan i struktura oraz ruch naturalny w przekroju terytorialnym w 2021 r. Stan w dniu 30 czerwca*. (from:) https://stat.gov.pl/files/gfx/portalinformacyjny/pl/defaultaktualnosci/5468/6/28/1/ludnosc_stan_i_struktura_oraz_ruch_naturalny_w_przekroju_terytorialnym_na_30.06.2020.pdf (access: 12.01.2023).

Cybulska, A., Pankowski, K. (2020). Życie codzienne w czasach zarazy, *Komunikat z badań CBOS, 60,* 1-18.

Doroszewska, A. (2021). Opieka okołoporodowa podczas pandemii COVID-19 w świetle doświadczeń kobiet i personelu medycznego. *RAPORT Fundacji Rodzić po Ludzku*, 1-127. (from:) https://bip.brpo.gov.pl/sites/default/files/2021-12/Raport_Fundacji_Rodzic_po_ludzku_2021.pdf (access: 12.01.2023).

Dragan, M., Grajewski, P., Shevlin, M. (2021). Adjustment disorder, traumatic stress, depression and anxiety in Poland during an early phase of theCOVID-19 pandemic. *European Journal of Psychotraumatology, 12*(1), 1860356. https://doi.org/10.1080/20008198.2020.1860356

Duszyński, J., Afelt, A., Ochab-Marcinek, A., Owczuk, R., Pyrć, K., Rosińska, M. (2020). Zrozumieć COVID-19. *Academia, 4*(64), 1-80.

Flynn, A., Kavanagh, K., White, S. (2021). The impact of the COVID-19 Pandemic on Pregnancy Planning Behaviors. *Womens Health Reports, 2,* 71-77. https://doi.org/10.1089/whr.2021.0005

Informacja o zgonach w Polsce w 2020, *Raport GUS 2020*, (from:) https://stat.gov.pl/obszary-tematyczne/ludnosc/statystyka-przyczyn-zgonow/umieralnosc-i-zgony-wedlug-przyczyn-w-2020-roku,10,1.html (access: 01.02.2023).

Irvine, A., Drew, P., & Sainsbury, R. (2013). "Am I not answering your questions properly?" Clarification, adequacy and responsiveness in semi-structured telephone and face-to-face interviews. *Qualitative Research, 13*, 87–106.

Kahn, G. L., Trasande, L, Liu, M. (2021). Factors Associated With Changes in Pregnancy Intention Among Women Who Were Mothers of Young Children in New York City Following the COVID-19 Outbreak. *JAMA Network Open, 4*(9), e2124273. https://doi.org/10.1001/jamanetworkopen.2021.24273

Kiełbratowska, B., Markowska-Sioma, U. (2021). Preparing pregnant women for childbirth during the COVID-19 pandemic. *Ginekologia i Położnictwo Medical Project, 16*(1).

Kupryjaniuk, A, Sobstyl, M. (2021). The influence of stress during pregnancy on the central nervous system of mother and her child. *Kwartalnik Naukowy Fides et Ratio, 47*(3), 492-499. https://doi.org/10.34766/fetr.v47i3.914

Lawson, M., Piel, M., Simon, M. (2021). Child Maltreatment during the COVID-19 Pandemic: Consequences of Parental Job Loss on Psychological and Physical Abuse Towards Children. *Child Abuse & Neglect, 110*(2), 145-167. https://doi.org/10.1016/j.chiabu.2020.104709

McIntosh, M.J., Morse, J.M. (2015). Situating and Constructing Diversity in Semi-Structured Interviews. *Global Qualitative Nursing Research, 2*. https://doi.org/10.1177/2333393615597674

Ministerstwo Zdrowia. (2020). *Rozporządzenie Ministra Zdrowia z dnia 20 marca 2020 roku W sprawie ogłoszenia na obszarze Rzeczpospolitej Polskiej stanu epidemii, Dz. U. z 2019 r*. poz. 1239 i 1495 oraz z 2020 r. 284, 322, 374. (from:) https://isap.sejm.gov.pl/isap.nsf/download.xsp/WDU20190001239/O/D20191239.pdf (access: 01.02.2023).

Ministerstwo Zdrowia. (2020). *Rozporządzenie Rady Ministrów z dnia 1 grudnia 2020 r. w sprawie ustanowienia określonych ograniczeń, nakazów i zakazów w związku z wystąpieniem stanu epidemii Dz.U.,* 2132. (from:) https://isap.sejm.gov.pl/isap.nsf/download.xsp/WDU20200002132/O/D20202132.pdf (access: 12.01.2023).

Ministerstwo Zdrowia. (2021). I*nformacja o zgonach w Polsce w 2020 roku.* Ministerstwo Zdrowia, 1-9. (from:) https://www.gov.pl/attachment/489b7a0b-a616-4231-94c7-281c41d3aa30 (access: 12.01.2023).

Milne, S.J., Corbett, G.A., Hehir, M.P., Lindow, S.W. (2020). Effects of isolation on mood and relationships in pregnant women during the covid-19 pandemic. *European Journal of Obstetrics & Gynecology and Reproductive Biology*, *252*, 610-611. https://doi.org/10.1016/j.ejogrb.2020.06.009

Morse, J.M. (2006). Biased reflections: Principles of sampling and analysis in qualitative inquiry. (In:) J. Popay (ed.), *Moving beyond effectiveness in evidence synthesis: Methodological issues in the synthesis of diverse sources of evidence*, 53–60. London: National Institute for Health and Clinical Excellence.

Mortazavi, F., Mehrabadi, M., Tabar, R. (2021). Pregnant women's well-being and worry during the COVID-19 pandemic: a cross-sectional study. *BMC Pregnancy and Childbirth, 59*, 1-11. https://doi.org/10.1186/s12884-021-03548-4

Nowakowska, E., Sulimiera Michalak, S. (2020). COVID-19-choroba wywołana zakażeniem wirusem SARS-COV-2 globalnym zagrożeniem dla zdrowia publicznego. *Postępy Mikrobiologii – Advancements of Microbiology, 59*(3), 227–236. https://doi.org/10.21307/PM-2020.59.3.16

Sandelowski, M. (2000). Whatever happened to qualitative description? *Research in Nursing & Health, 23*, 334–340.

Schwartz, D.A. (2020). An Analysis of 38 Pregnant Women With COVID-19, Their Newborn Infants, and Maternal-Fetal Transmission of SARS-CoV-2: Maternal Coronavirus Infections and Pregnancy Outcomes. *Archives of Pathology & Laboratory Medicine, 144*(7), 799-805. https://doi.org/10.5858/arpa.2020-0901-SA

Sokół-Szawłowska, M. (2020). Wpływ kwarantanny na zdrowie psychiczne podczas pandemii COVID-19. *Psychiatria, 18*(1), 57-62. https://doi.org/10.1155/2022/8545372

Stępień, E., Dorofeeva,, U., Hdyrya, O. (2015). Internet jako źródło wiedzy o przebiegu ciąży, porodu i połogu kobiet ciężarnych. *European Journal of Medical Technologies*, *1*(6), 39-42. (from:) http://www.medical-technologies.eu/upload/06_internet_jako_zrodlo_wiedzy_o_przebiegu_ciazy,_porodu_i_pologu_kobiet_ciezarnych_-_stepien.pdf (access: 12.01.2023).

Studniczek, A., Kossakowska, K. (2020). Ciąża i poród w czasach pandemii COVID-19: wybrane aspekty psychologiczne. *Kwartalnik Naukowy Fides et Ratio, 43*(3), 274-284. https://doi.org/10.34766/fetr.v43i3.417

Szenborn, L., Matkowska-Kocjan, A. (2010). Grypa u ciężarnych – leczenie i profilaktyka. *Medycyna po dyplomie, 19*(7), 98-103. (from:) https://podyplomie.pl/publish/system/articles/pdfarticles/000/011/153/original/Strony_od_MpD_2010_07-16.pdf (access: 12.01.2023).

Vermeulen, J., Bilsen, J., Buyl, R., De Smedt, D., Gucciardo, L., Faron, G., Fobelets, M. (2022). Women's experiences with being pregnant and becoming a new mother during the COVID-19 pandemic. *Sexual & Reproductive Healthcare: Official Journal of the Swedish Association of Midwives, 32*, 100728. https://doi.org/10.1016/j.srhc.2022.100728

Vermeulen J., Jokinen M. (2020). The European Midwives Association call for action to protect our midwives in delivering best care amidst the COVID-19 pandemic. *European Journal of Midwifery, 4*, 10. https://doi.org/10.18332/ejm/120443

WHO (2020). *Every woman's right to a companion of choice during childbirth*, 2020. (from:) https://www.who.int/news/item/09-09-2020-every-woman-s-right-to-a-companion-of-choice-during-childbirth (access: 12.01.2023)