Is she on cloud nine, or are black clouds gathering over her?
Psychopathology during and after pregnancy

T. Verbeek
B.N.W.J. Geelhoed-Jenner
E.R. Nijhuis
C.D. Peer
M.Y. Berger

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Abstract

This article describes two patients with psychosocial problems during and after pregnancy. The first woman suffers from an obsessive-compulsive disorder and developed a postpartum depression after her first pregnancy. Her second pregnancy was marked by uncertainty, anxiety, and stress. Her caregivers noticed her problems and referred her to a Psychiatry-Obstetrics-Paediatrics (POP)-team, which provided her with a successful treatment. The second woman had physical symptoms, which were largely ascribed to an antenatal depression and were effectively treated using antidepressants and cognitive behavioural therapy. Although these patients experienced different problems in different situations, the impact on the woman, partner and child(ren) was tremendous in both cases.

This article makes clear that early screening and treatment of symptoms of anxiety and depression are important during and after pregnancy. Vigilance and screening by midwives, general practitioners, and obstetricians may help in early recognition and ultimately in earlier treatment, either medicinal and/or using psychotherapy, which may reduce or even prevent harmful consequences.
Background

The time around a pregnancy is accompanied by many emotions. Mostly, the main emotion is happiness, as a result of the hope of an uncomplicated pregnancy, a pleasant postpartum period and a healthy child. However, many pregnant women suffer from symptoms of anxiety and depression. Nevertheless, recognition and treatment are still insufficiently integrated in obstetric care. This article intents to show that screening and timely referral to specialized care are important because of the tremendous impact of the complaints on women, partners, and child(ren).

Case descriptions

**Patient A**, a 25 years old woman, gravida 2 para 1, was referred to the POP-team, consisting of a psychiatrist, an obstetrician, and a paediatrician, in the first trimester of her second pregnancy, because of mental health problems. Since her childhood, she suffered from an obsessive-compulsive disorder (OCD), but she refused treatment. In addition to anxiety and depression disorders, OCD was present in her religious family.

During her first pregnancy, no attention was paid to her OCD. During her maternity time, she developed a postpartum depression with psychotic features. She experienced delusions and thought that her child had a deformed and frightening appearance, which was objectively incorrect. In the course of time, her gloominess and delusions disappeared and therefore she still felt no need for treatment.

In the following two years, the OCD symptoms returned: she had cleaning compulsions and obsessional thoughts about her son, soiling himself. As a consequence of these thoughts, she restricted his freedom of movement and prohibited him playing outside or crawling on the floor, which ultimately resulted in a lot of conflicts with her husband.

The results of a screening in the first antenatal consult during her second pregnancy indicated mental problems, whereupon the midwife referred the woman to the POP-team. During the intake appointment, the psychiatrist saw a young woman with a well-groomed appearance, who was friendly in contact. She was openhearted about her medical history and had an adequate insight and understanding of her progressing symptoms of OCD. During the intake, she made normal eye contact, she reacted properly and adequate, her attention was easy to attract and she could focus well. Her memory was intact, her cognition appeared to be normal, and she was well oriented in time, place, and person. Her perceptions were normal and she told the psychiatrist that she had no delusions or hallucinations after the postpartum period of her first pregnancy. Since her second pregnancy, she
had more obsessive and anxious thoughts. Nevertheless, her mood was normal and she had no suicidal thoughts.

Because the woman noticed that her symptoms were increasing, she accepted treatment, in contrast to the years before. The POP-team offered her a cognitive behavioural therapy (CBT), which was provided during the remaining months of her pregnancy. During these therapy sessions, anxiety and obsessional thoughts were the main subjects. In addition, attention was paid to the prevention of a depression. The CBT was, after a careful explanation of the advantages and disadvantages, medicinally supported using a serotonin reuptake inhibitor (SSRI) named Sertraline (Zoloft®, Lustral®) 50 milligrams daily. Sertraline has a therapeutic function in OCD patients and works preventative on averting a postpartum depression.

In the following months, the POP-team kept in close touch with the patient. Her psychiatric symptom levels decreased and there was no need to increase the dose of her Sertraline. She reported to be less anxious and had less obsessive-compulsive thoughts and behaviours aimed at herself, her partner and child.

After an uncomplicated pregnancy of 38 weeks, she gave birth to a healthy boy. His birth weight was below average (2900 grams; -1 standard deviation; SD) and he had a weak start (Apgar scores of 2, 6, and 8, after 1, 5, and 10 minutes). However, his umbilical artery pH was normal. He recovered quickly and his mother was very proud. To everyone’s satisfaction the woman’s postpartum period went by uneventful. The following months her psychiatric situation remained stable and she finished her therapy. She continued the use of Sertraline because of the effect on the OCD.

Patient B, a 24 years old woman, gravida 1 para 0, was referred to the POP-team because of mental health complaints, at the end of the second trimester of her pregnancy. The patient grew up in a family with a low socio-economic status (SES). She was poorly educated, was unemployed and suffered from a strong fear of performance over the years. In addition, she had lost her little brother when she was young.

In the years before her pregnancy, she tried to get pregnant from her former partner, but despite fertility examinations and several tests these attempts remained unsuccessful. The tension and uncertainty resulting from the unfulfilled desire to have a child resulted in a lot of stress and eventually in the end of the relationship. Only two months after the start of her new relationship, the patient was pregnant by her new partner. He insisted on an abortion, but she refused and ended this relationship.

During an antenatal consult with her midwife, the patient told that she was often nauseated and vomited frequently. Besides that, she was very tired,
melancholic, and had been fretting for weeks. The joy of being pregnant decreased and ultimately she considered offering her child for adoption. At the end of the second trimester of her pregnancy, her general practitioner referred her to the POP-team.

During the intake appointment, the psychiatrist saw a young woman with a moderately groomed appearance, who looked very exhausted. While she was friendly and cooperative, she made a passive and submissive appearance. She had an inadequate insight in her condition: she saw no association between her somatic and psychiatric symptoms. Her attention was easy to attract and she could focus well. Her memory was intact, her cognition appeared to be normal, and she was well oriented in time, place, and person. Her perceptions were normal and she told that she had no delusions or hallucinations. She had a negative thought about her self-image and her future. Her mood was dejected and depressed and her affect was flat, but she had no suicidal thoughts. The psychiatrist diagnosed her with an antenatal depression. In her family medical history, no depression was present.

After a careful explanation about the psychiatric origin of her somatic complaints, patient was willing to be treated with CBT and medication. Because she did not tolerate Sertraline, the POP-team decided to prescribe another SSRI, named Citalopram (Cipramil®, Celexa®) 10 milligrams daily. In the following months, she was fretting less and her mood improved. Her nausea disappeared, she slept better at night, and was less tired during the day.

After an uncomplicated pregnancy of 38 weeks, she gave birth to a healthy boy. His birth weight was below average (2840 grams; -1 SD) but he had a good start (Apgar scores of 9, 10, and 10, after 1, 5, and 10 minutes). The pH of the umbilical artery was normal. The patient was very proud of her son and her postpartum period went by without both physical and mental problems. She told that she had benefited a lot from the CBT. After finishing the treatment of the POP-team, she continued her medication because of the positive effect on the prevention of postpartum depression. After six months, she reduced and eventually stopped the Citalopram, under the supervision of her general practitioner.
Discussion

Psychiatric problems are highly frequent complications of pregnancy. Of all pregnant women, 10-20% suffers from symptoms of anxiety and depression.\textsuperscript{12} Besides on the pregnant women, these symptoms have adverse effects on perinatal outcomes and the unborn children.\textsuperscript{57} Thus, recognition and timely treatment of psychiatric complaints in pregnant women are important for the mothers to be, their partners, and children.

In spite of the nature and frequency of psychiatric problems, systematic screening is not integrated in obstetric care. Midwives and obstetricians do assess psychiatric disorders in the medical history of the patient, but they often do not screen on risk factors and symptoms of psychiatric disorders.\textsuperscript{89} During her first pregnancy, patient A was not screened on psychiatric disorders in her medical history, or her midwife did not realise the consequences of a positive screening result. During her second pregnancy, her increased risk was recognised and resulted in an effective referral by the general practitioner to the POP-team.

Risk factors

Literature shows that an earlier episode of psychopathology is not the only risk factor for anxiety and depression during or after pregnancy. Other risk factors include an unintended pregnancy, low social support, low SES, and negative life events, especially child traumas and events that happen shortly before the pregnancy.\textsuperscript{45,46} Besides, the experience of symptoms of anxiety or depression during pregnancy is known to be a strong predictor of such symptoms in the postpartum period.\textsuperscript{55}

In the joint guideline of the Dutch Association of Obstetrics & Gynaecology (Nederlandse Vereniging voor Obstetrie & Gynaecologie; NVOG), the Dutch Association of Paediatics (Nederlandse Vereniging voor Kindergeneeskunde; NVK), and the Dutch Association of Psychiatry (Nederlandse Vereniging voor Psychiatrie; NVvP), it is advised to systematically screen on these risk factors.\textsuperscript{73} Aside from the midwife or obstetrician, the general practitioner can indicate a patient with an increased risk and enable a quick referral to a POP-team for further diagnostics and treatment. Patient B had an increased risk of anxiety and depression, based on her poor social network, low SES, the loss of her brother (a major childhood negative life event), and the stress she experienced before and during pregnancy.

Differential diagnosis

Anxiety and depression are not the only mental health problems pregnant women might suffer from. Psychiatric problems that may occur outside of
pregnancy, for example schizophrenia, autism spectrum disorders, and eating disorders, may as well occur during pregnancy. Particularly bipolar disorders should be kept in mind, because these are associated with postpartum psychoses. Furthermore, alcohol and drug use should be detected because of the major adverse consequences for the unborn child. As alternative diagnoses, hypo- and hyperthyroidism should be considered, as well as physiological (emotional) manifestations of the physical and social changes during pregnancy.

Treatment

Above-mentioned multidisciplinary guideline advises to treat psychiatric disorders during pregnancy on time. In patients with anxiety and/or depression, three treatment options are available, i.e. antidepressants, psychotherapy, or a combination of both.

Due to ethical concerns on performing research on pregnant women, both beneficial and possible adverse (side) effects of these treatment options have not been well studied, but it is unlikely that the effectivity differs between pregnant versus non-pregnant women. When medicinal treatment is chosen, therapeutical benefits should be weighted up to the possible dose-dependent toxicity for the unborn child.

Although there is a lot of clinical experience in using tricyclic antidepressants (TCAs), prudence is called for because these can cause neonatal withdrawal reactions. Monoamine-oxidase inhibitors (MAOIs) should be avoided during pregnancy because of the risk of a maternal hypertensive reaction and because there are reports of teratogenicity while using MAOIs.

A commonly used group of antidepressants is formed by the SSRIs. According to the guidelines, none of the types of SSRIs is clearly preferred. However, the SSRIs that were used in the treatment of patients A and B, namely Sertraline and Citalopram, probably have the smallest risk of adverse neonatal effects. Escitalopram (Lexapro®, Cipralex®) and Fluvoxamine (Fevarin®, Luvox®) have been less researched. Paroxetine (Seroxat®, Paxil®) has been associated with low birth weight and congenital abnormalities. Because of the risk of neonatal persistent pulmonary hypertension, delivery in a hospital, as well as neonatal observation under supervision of a paediatrician for a minimum of 12 hours after birth are recommended when a woman uses SSRIs during pregnancy. Like in every medicinal therapy, the lowest possible dosage, still providing an effective result, should be prescribed, both in pregnant and in breastfeeding women.

Likewise, the evidence of the effectivity of psychotherapy as a treatment for psychopathology during pregnancy is insufficient. Cognitive behavioural therapy is one of the most often applied forms of psychotherapy and is based
upon a combination of basic behavioural and cognitive principles. In the non-pregnant population, cognitive behavioural therapy has proven to be effective and it is implausible that its effects in pregnant women differ from effects in non-pregnant women. However, there is only mixed evidence of beneficial effects of cognitive behavioural therapy during pregnancy. Furthermore, risks for the unborn child have not yet been studied.\footnote{92}

Both patient A and B benefited from the combination of CBT and an SSRI. In non-pregnant women this combination is very effective in reducing symptoms of psychopathology.\footnote{92} However, effects on the foetal are still unknown. The children of both patients were born at term but had low birth weights and the child of patient A had a weak start. While perinatal outcomes result from many factors, these outcomes may be adversely influenced by the psychopathology, or by the treatment.\footnote{73} Therefore, the expertise of the POP-team is helpful in balancing the pros and cons of the treatment options.

In more and more Dutch hospitals, care for pregnant women with psychiatric complaints is organised in POP-teams. These multidisciplinary teams are desirable in the individual assessment of cases. To increase the success rate of the treatment, close cooperation with the general practitioners and their psychiatric nurse practitioners is recommended. They know the context and family situation of their patients therefore the can provide a quick adequate screen and referral. Involvement of the paediatrician in the POP-team is meaningful in the anticipation of the effects on the child, antenatally and postpartum.

**Conclusion**

These cases indicate that awareness and early screening of symptoms of anxiety and depression is of great importance during and after pregnancy. While patients A and B had divergent symptoms in different situations, the complaints had a tremendous impact in both cases. Timely observation and adequate treatment have reduced or even prevented adverse consequences. It is important to evaluate the risk of psychiatric problems and quickly refer pregnant women to a POP team. Treatment, consisting of medicines and/or psychotherapy may be started earlier to reduce adverse consequences. The multidisciplinary approach of the POP-team is preferred in the diagnostics, treatment, and follow-up of this complex group of patients.