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Current State of Mental Health of Pregnant and Postpartum Women and Direction of Support

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Abstract

The perinatal period is a period in which mental disorders are likely to develop due to large psychosocial and physical changes. The mother's mental health problems not only affect herself, but also the mental and physical development of the fetus and newborn, and the family. As it may lead to serious problems, such as child abuse, the mother's own death, and infanticide, early detection and response, and preparation of a support system are urgent issues. In particular, women with a history of mental illness have a higher risk of relapse and recurrence than those with new onset, and psychiatric care is considered to play a major role.

In recent years, the importance of perinatal mental health care has been recognized in society and national measures have been taken. For example, strengthening the maternity health checkups and support for pregnant and postpartum women was included as an important measure in the comprehensive suicide measures. However, the perinatal period consists of support from both the fields of maternal and child health and child-rearing support, and as many institutions are involved in such support, it is difficult for related organizations to cooperate, and support is divided by systems and institutions. Although there are many points that have not been resolved to address this issue, we assigned a dedicated psychologist to the outpatient department of obstetrics. As such, when mentally unstable pregnant women visit the obstetrics department, we

can collaborate in order to detect and intervene early. This article describes the current state of mental health of pregnant and postpartum women, the difficulty of support, and some of the measures taken at our hospital.

Keywords : perinatal period, mental health, support system, multidisciplinary collaboration

Introduction

In addition to physical changes, the perinatal period is said to be a time of great psychosocial changes, such as gaining a new family and the role of a mother, losing an environment and interpersonal relationships that have been established, and recalling and struggling with past experiences of being brought up through pregnancy and child rearing, which can cause mental health problems. Such mental health problems not only affect the mothers themselves, but also affect the mental and physical development of the fetus and newborn, and may lead to childcare failure, child abuse, maternal suicide, and infanticide. Therefore, early detection of and treatment for perinatal mental health problems, as well as the establishment of a support system, are urgent issues.

I. Prevalence, Incidence, and Recurrence of Mental Disorders in the Perinatal Period

Although all psychiatric disorders have the potential to develop, relapse, and recur during the perinatal period, this article focuses on depression and bipolar disorder, which are the most common disorders.

1. Prevalence and incidence of depression

The prevalence of depression in the perinatal period, as reported in previous literature reviews, varies widely, and there are few representative estimates worldwide. This may be due to diagnostic methods varying from study to study, including self-administered questionnaires and diagnostic tools, the fact that prevalence rates may include depressive states and maternity blues that do not meet the criteria for a major depressive episode, and that prevalence rates may vary according to the socioeconomic status. Therefore, in the latest systematic review 28) consisting of 101 studies, prevalence rates were calculated adjusting for the socioeconomic status and diagnostic methods. The results showed that the

gestational and postpartum period prevalence rates were 9.2 and 9.5%, respectively, in high-income countries, while they were 19.2 and 18.7%, respectively, in low- and middle-income countries, being approximately double those in high-income countries. Furthermore, there was no significant difference in period prevalence between perinatal and non-perinatal women in regions with a similar socioeconomic status. This result is consistent with a previous study that found no significant difference in prevalence rates between the perinatal and non-perinatal periods in high-income countries, such as the U.K. and U.S. 6)18). These findings suggest that differences in economic status, rather than perinatal status, may affect prevalence rates, and are consistent with a previous study showing that the prevalence of major depression was higher among women with lower household income levels 1)19). Furthermore, it should be noted that there was no significant difference in prevalence between the gestational and postpartum periods. Regarding the incidence, the proportion of women who develop depressive episodes during pregnancy or in the weeks to months postpartum is said to be 3-6% 4), and the incidence and prevalence do not necessarily increase significantly in the perinatal period. However, among women who develop depressive episodes postpartum, especially when accompanied by psychotic features, an increased recurrence rate is observed during the subsequent pregnancy and childbirth, which may affect family planning, and may even lead to suicide or infanticide. Since this is a period requiring special attention, the specific term "postpartum onset" was appended to DSM-IV-TR 3). Furthermore, since half of postpartum depressive episodes begin before delivery, DSM-5 4) was revised to "peripartum onset" to specifically call attention to mood symptoms from the gestational period.

2. Bipolar disorder

The prevalence of bipolar disorder in non-pregnant women was 2.3%, whereas the prevalence in the gestational period and 12 months postpartum was 2.8 and 2.9%, respectively, showing no significant difference 24). Although there are few studies on the incidence in the perinatal period, the rate of new cases during pregnancy is said to be low in studies of population databases 13). However, it should be noted that 6 of 64 women diagnosed with postpartum depression, or a little less than 10%, were rediagnosed as having bipolar disorder within 6 months postpartum, and it is possible that some of the women who were considered to be depressed may have had bipolar disorder 21).

3. Recurrence in women with a history of mental illness

It has been reported that more than half of women with depression showed recurrence within 4 weeks postpartum and 90% within 4 months postpartum 2). For bipolar disorder, a population database study reported that although the rate of recurrence during pregnancy was low, the risk of hospitalization during the first 10 to 19 days postpartum was 37 times the normal rate, and 22% of women with bipolar disorder required hospitalization within 3 months postpartum 14). In cases with a history of both depression and bipolar disorder, it has been suggested that adequate attention should be paid during the first 3 to 4 months postpartum, especially during the first month.

4. Pharmacotherapy and recurrence rates in pregnant women with a history of mental illness

Women with a history of mental illness who become pregnant often self-discontinue medication due to concerns about the link between medication during pregnancy and teratogenicity. In a study of pharmacotherapy and recurrence rates in pregnant women with a history of mental illness, the recurrence rate for depression was 26% in the group that continued pharmacotherapy during pregnancy, compared with 68% in the group that discontinued it 5). For bipolar disorder, the recurrence rate was 37% in the group that continued pharmacotherapy, compared with 86% in the group that discontinued it 25). In both cases, the recurrence rate clearly increased in the interrupted group. These results suggest that discontinuation of medication during pregnancy increases the risk of recurrence and should be discussed in advance so that patients do not self-discontinue medication during pregnancy.

5. Effects of perinatal depression on mother and child

Effects of perinatal depression on the mother include inadequate care and food intake by the mother during pregnancy, increased risks of miscarriage and premature delivery, and, postpartum, impaired child-rearing activities due to irregular breastfeeding and insufficient sleep 8)20). Effects on the child include increased activity and abnormal heart rate in the fetal period, elevated cortisol and norepinephrine, decreased dopamine, and electroencephalographic changes in the neonatal period, and in the school-age period, elevated salivary cortisol, internalizing and externalizing problem behaviors, and obesity 9). Postpartum depression of the mother

may affect the child's cognitive and psychological growth by decreasing parenting skills and positive mother-child interactions 12)20).

II. Importance of Perinatal Mental Health Care

1. Perinatal depression and suicide

The 2016 report on maternal suicide may have had a significant impact on paying greater attention to the importance of perinatal mental health care measures. Originally, it was known that suicide accounted for 20% of postpartum deaths and that perinatal suicide attempts were also frequent, ranging from 5 to 14% 11). In a survey conducted in Tokyo over a 10-year period from 2005, 63 of 89 perinatal deaths, or more than 70%, were suicides 23). Of these, 40 (63%) were suicides in the postpartum period, and 60% of the mothers had psychiatric disorders, about 30% of which were postpartum depression. As mentioned earlier, the prevalence and incidence of depression in the perinatal period were not significantly higher than in the non-perinatal period, but the results were consistent with reports that the risk of recurrence is markedly increased postpartum in women with a history of mental illness. In addition, it was confirmed that about half of the group who were found to have no postpartum psychiatric disorder had suffered from child-rearing distress, but the details of this remained unclear because they had refused to see a psychiatrist, which also revealed the high threshold for seeing a psychiatrist and need to establish a cooperative system to detect mental illness at an early stage and promote consultation. In comparison with other countries, the number of maternal suicides per 100,000 live births was 3.7 in Sweden 7) and 2 in the U.K. 17), while the figure was as high as 8.7 in Japan 23).

2. Perinatal depression and child abuse

Another reason why perinatal mental health care is an urgent issue is its association with child abuse. According to the Ministry of Health, Labour and Welfare 10), the number of cases of child abuse consultations and responses in FY 2018 was nearly 160,000, and this number is increasing every year. Of the 65 deaths in FY2017, 52 of which were abusive deaths other than infanticide-suicides, 28 (53.8%) were of children aged 0 years, with a particularly high number of 14 (50%) of those being children aged 0 months. The most common perpetrator was the biological mother in both non-infanticide-suicide and infanticide-suicide deaths, at 48.1 and 46.2%, respectively. Among the psychological and emotional problems of the biological mothers in abusive deaths other than infanticide-suicide, 26.0%

reported low child-rearing ability and 16.0% reported child-rearing anxiety. In addition, the most common background of abusive deaths due to infanticide-suicide was economic deprivation (61.5%) in FY2017, while the most common background was the guardian's own mental illness and mental anxiety (53.6%) in FY2016. These findings suggest associations between postpartum maternal mental illness and mental anxiety and abuse and abusive death.

3. Countermeasures

These facts have led to the recognition of the urgent need for perinatal mental health care measures, and two measures were proposed in FY2017: First, the strengthening of the Maternity Health Checkup Project (hereafter referred to as "maternity health checkup"). The Edinburgh Postnatal Depression Scale (EPDS), a perinatal depression assessment scale, has long been used to assess the mental status during the first month postpartum. However, some local governments have started to provide grants to allow women to have a maternity health checkup even at two weeks postpartum to better assess their mental status in the early postpartum period. Second, comprehensive suicide measures include the strengthening of support for pregnant and postpartum women as an important measure. Specifically, it includes the promotion of collaboration among related organizations and reinforcement of support for specified expectant mothers and for those who do not receive prenatal care. Specified expectant mothers are defined in an article of the Child Welfare Law as "pregnant mothers who are particularly identified as in need of prenatal support for childcare after giving birth," and refer to pregnant women who are expected to have difficulty raising their children due to complicated family circumstances, for example. Thus, the importance of early detection and strengthening of support was reaffirmed, and measures were adopted.

III. Difficulties of Cooperation in the Perinatal Mental Health Support System

1. Changes in support systems for pregnancy and childbirth: "the Comprehensive Support Center for Families with Children"

The importance of caring for and supporting mental health during the perinatal period is becoming increasingly recognized, but the current situation makes it difficult for various organizations to cooperate with each other within the support system. In recent years, the environment surrounding expectant and nursing

mothers has been changing due to the declining birthrate, aging population, nuclear families, late marriages, late childbearing, and isolation of child rearing. Until now, support has been provided to pregnant and postpartum women from both the maternal and child health care and child-rearing support fields. However, because many organizations are involved in this support, it is difficult for the organizations concerned to share sufficient information and cooperate with each other, and support tends to be fragmented by system and organization. In addition, it was pointed out that each related organization tends to grasp only information related to its own support and is not able to continuously and comprehensively grasp the overall situation of pregnant and postpartum women. In light of these issues, the Ministry of Health, Labour and Welfare established the Comprehensive Support Center for Families with Children to build a system that provides seamless support from pregnancy to child rearing according to regional characteristics, and is providing detailed consultation support. Through the integrated provision of these maternal and child health measures and child-rearing support measures, comprehensive support for the maintenance and promotion of the health of pregnant and postpartum women is provided.

2. Outline of support system for pregnancy and childbirth (Figure 1)

In Japan, various maternal and child health care services, such as maternity and infant health checkups, have been provided upon notification of pregnancy and issuance of the Maternal and Child Health Handbook. In addition, in order to enhance support for mental and physical anxieties during pregnancy and after childbirth as well as child-rearing anxiety, in FY2014, the Prenatal and Postpartum Support Project was launched to reduce anxiety through listening, etc., and the Postpartum Care Project to provide guidance to mothers on physical recovery and lactation, etc., and has been in full operation since FY2015. Furthermore, the Maternity Health Checkup Project mentioned above has been implemented since FY2017 to assess the physical and mental health status and strengthen support in the early postpartum period. As part of the Women's Health Support Center Project, counseling and guidance are also provided for women with physical and mental health problems, such as unexpected pregnancy and mental health issues.

3. Factors that prevent successful collaboration

While collaboration in the fields of

maternal and child health and child-rearing support is being strengthened, from the perspective of maternal mental health care, it is still difficult to say that collaboration among multiple professions is sufficient. Watanabe et al. 26) cite three factors as reasons for this: First, there is insufficient horizontal collaboration among various professional organizations, such as "psychiatry and obstetrics", due to differences in specialties, with "mental health and welfare" under prefectural jurisdiction and "maternal and child health" under municipal jurisdiction; second, different organizations are involved during pregnancy, childbirth, and the postpartum period, and support tends to be fragmented; and third, the central support organization changes when mothers go back to their hometown for delivery or their families move.

4. Efforts to strengthen collaboration

As described above, the importance of collaboration between maternal and child health care and psychiatric care has become clear, and measures have been taken to strengthen the collaboration: First, the aforementioned subsidies for maternity health checkups have been introduced, and results of EPDS and other tests conducted at maternity health checkups are promptly reported to each municipality, thereby establishing a system to link mothers in need of support to postpartum care services. Second, a new fee for guidance for high-risk pregnant and postpartum women was established in accordance with the revision of medical service fees in FY2018. One of the requirements for calculation of the fee is that obstetricians, psychiatrists, and local authorities must hold a regular conference once every two months to share information and collaborate in medical treatment, which our hospital has been doing. In this way, efforts are being promoted so that specialized institutions can collaborate with each other.

5. Collaboration among medical care, public health, and welfare in dealing with pregnant and postpartum women with mental health problems

Maternal and child health care is often difficult to coordinate because it involves many professions, including public health nurses, obstetricians, midwives, nurses, and pediatricians. In response to the many comments that "we do not know when to connect to psychiatry," the Japanese Society of Perinatal Mental Health created the "Perinatal Mental Health Consensus Guide 2017" 16) (Figure 2). "Urgency" in the figure refers to: (1) the presence of suicidal ideation and inability of the patient to control these feelings, (2) the

sudden appearance or worsening of psychotic symptoms (hallucinations, delusions, etc.), and (3) the risk of harm to him/herself, surrounding family members, or others.

6. Another problem that makes multidisciplinary collaboration difficult

Psychiatric symptoms are sometimes difficult to assess for medical personnel who are not involved in psychiatric care. Perinatal mental health includes relapse and recurrence of mental illness before and during pregnancy, and a variety of assessments are required, including not only depressive symptoms but also manic symptoms, anxiety symptoms, psychotic symptoms, etc. However, because these projects are limited to the assessment of depressive symptoms during maternity checkups, it is still considered difficult for multidisciplinary professionals to detect various mental disorders in pregnant and postpartum women in the early stages. In other words, one of the challenges is the difficulty in responding to various mental symptoms.

IV. Efforts at Nagoya University Hospital

At our hospital, a psychologist dedicated to supporting perinatal mental health was appointed in FY2017. Five main tasks are being carried out, as follows:

(1) Support during pregnancy: interviews with high-risk pregnant women

(2) Support during hospitalization: consultation-liaison

(3) Postpartum support: psychological interviewing at maternity health checkups

(4) Other support as preventive intervention: psychological education at childbirth classes

(5) Support through multidisciplinary and multi-institutional collaboration: conferences for pregnant and postpartum women with psychiatric disorders

1. Support during pregnancy: interviews with high-risk pregnant women

Our hospital is designated as a General Perinatal Medical Center and accepts many high-risk pregnant women. High-risk pregnant women are defined as those with risky pregnancies such as fetal abnormality, multiple pregnancies, placenta previa, gestational hypertension, and elderly first-time mothers. When a pregnant woman visits the obstetrics department (mainly on the first day), a dedicated psychologist conducts an interview in the obstetrics outpatient clinic to provide psychological education and assess psychiatric symptoms. They are also asked about their anxieties and

thoughts regarding childbirth and childcare, especially if there is a fetal abnormality, as well as their thoughts and feelings after being informed of the diagnosis. In addition, they are asked about their relationships with their partners and family members, and the support they can expect. For symptom assessment, we use the "Two Questions on Depression," 27) which is recommended in the National Institute for Health and Clinical Excellence (NICE) guidelines for the assessment of postpartum depressive symptoms, and the "Questions to Assess Generalized Anxiety Disorder (GAD-2)". GAD-2 is an extract of the first two items of GAD-7 22), which consists of seven questions. The psychological interview at the maternity health checkup (3) is also conducted to understand the condition of the mother by carefully listening to her life after childbirth and her thoughts about her child.

2. Support during hospitalization: consultation-liaison

The perinatal liaison team, consisting of psychiatrists and psychologists, is also active during hospitalization. After a pregnant woman is admitted to the maternity ward, a psychologist visits her room and interviews her, and if proactive intervention is necessary, the patient is immediately referred to a psychiatrist.

3. Other support as preventive intervention: psychological education at childbirth classes

Psychological education on perinatal mental health is provided to all pregnant women, not only high-risk pregnant women, in a 15-minute session during a childbirth class in the fifth month of pregnancy.

4. Other efforts by psychiatrists

Since there are many cases in which the patient is unaware of the illness or refuses to see a psychiatrist, we try to deal with these cases on the same day that the expectant mother visits the obstetrics outpatient clinic, and in some cases, the psychiatrist visits the obstetrics department in order to make sure that nothing is overlooked.

Conclusion

We have described the actual situation of mental health of pregnant and postpartum women and the direction of support. Although the importance of collaboration between maternal and child health care and psychiatric care is being increasingly recognized, it is difficult to say that actual collaboration is sufficient in some cases. As for what medical institutions can do, we strive for early detection, early support, and collaboration by interviewing pregnant and postpartum

women who visit our obstetrics department with our dedicated psychologist and by conducting conferences with local support organizations. Until now, there have been no guidelines developed based on close cooperation and collaboration between the specialties of obstetrics and psychiatry, but in May 2020, the Japanese Society of Psychiatry and Neurology and Japan Society of Obstetrics and Gynecology developed the "Clinical guide for women with mental health problems during perinatal period: General Remarks" 15), and efforts are being made to balance and strengthen medical treatment.

There are no conflicts of interest to disclose in relation to this paper.

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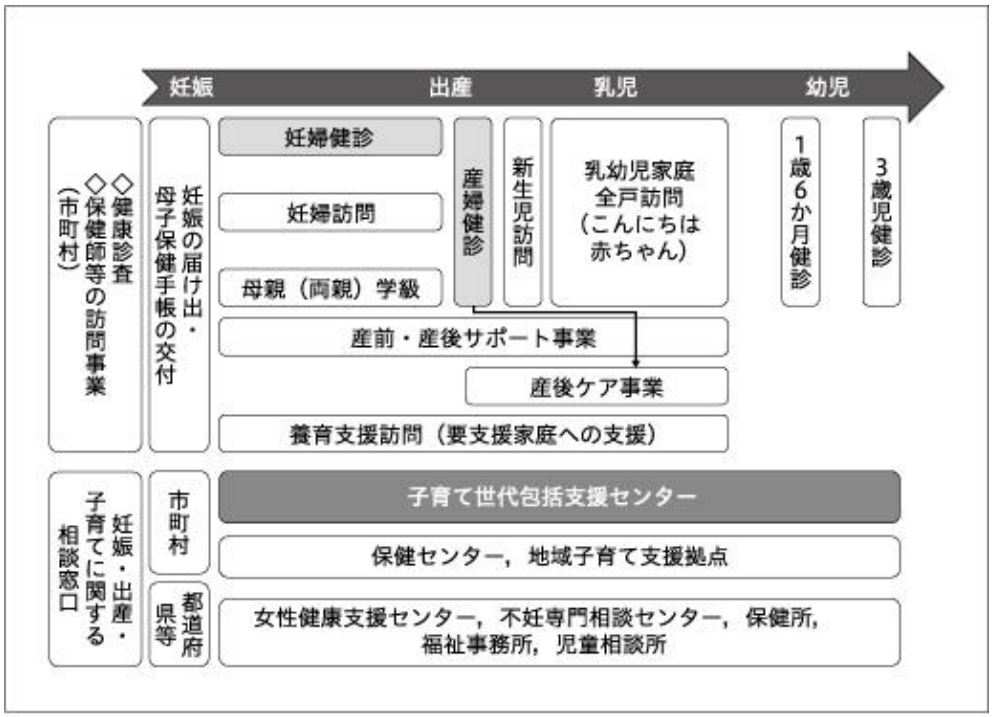

図 1　妊娠・出産などに係る支援体制の概要

Figure 1: Outline of Support System for Pregnancy, Childbirth, etc.

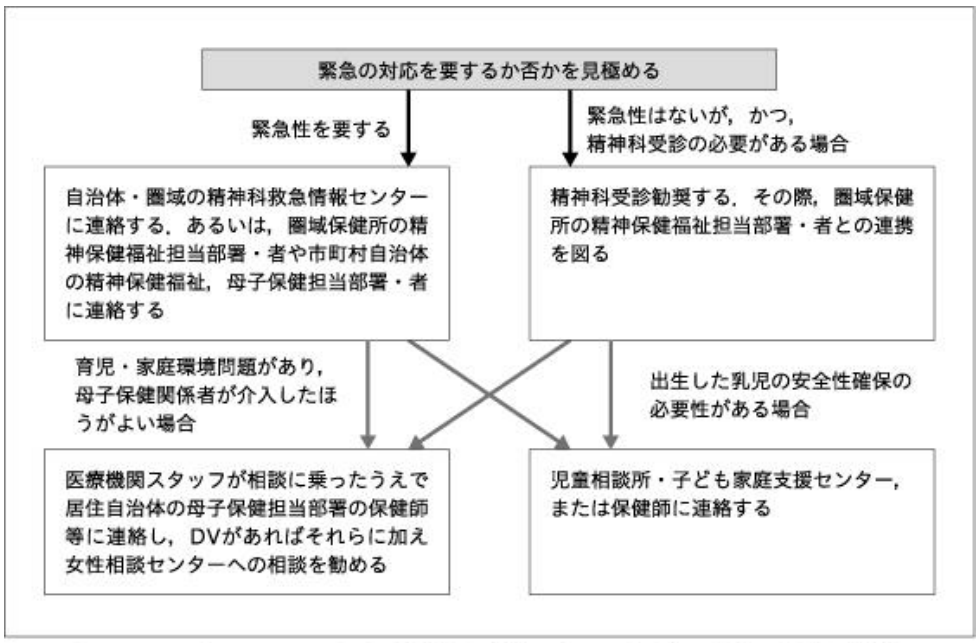

図 2　メンタルヘルス不調の妊産婦の対応における医療・保健・福祉の連携
（文献 16 より著者作成）

Figure 2: Collaboration among medicine, healthcare, and welfare in dealing with pregnant and postpartum women with mental health problems
(Compiled by the author from Reference 16)