

Risk Factors, Early Identification, and Intervention of Postpartum Depression

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Abstract: With the rapid development of modern society, people's living demands continue to grow, leading to increasing levels of stress, which poses significant threats to recently delivered mothers. Today, the incidence of postpartum depression is on the rise, and it has adverse effects on both the physical and mental health of mothers and the health and growth of infants. Therefore, society as a whole should pay close attention to postpartum depression. This article primarily analyzes the risk factors and clinical manifestations of postpartum depression and provides measures for its prevention based on these factors.

Postpartum depression can permanently affect the mental state of some women after childbirth, not only negatively impacting childbirth but also having adverse effects on the physical and mental health of the child. It can lead to cognitive impairments, emotional disturbances, personality changes, behavioral disorders, and negative effects on family relationships[1]. Therefore, to ensure the physical and mental health of both mothers and infants, it is imperative to actively explore the risk factors for postpartum depression and implement preventive measures.

1. Clinical Manifestations of Postpartum Depression

Due to fluctuations in hormone levels during pregnancy and childbirth, the incidence of postpartum depression increases with the mother's age. During pregnancy, expectant mothers may experience anxiety, tension, emotional instability, and irritability. After delivery, they may experience persistent and severe depression, loss of interest, loss of joy, and a sense of meaninglessness in life. Some may even engage in self-harm, suicidal thoughts, and infanticide. With improved living standards and increasing attention to mental health, people are becoming more concerned about their psychological well-being. The adverse effects of postpartum depression on pregnant women are gaining public attention. From the perspective of psychiatrists and psychologists, it is essential to monitor emotional and psychological changes in pregnant women during diagnosis and treatment, detect signs of postpartum depression early, and provide early intervention to reduce the negative impact of postpartum depression[2].

Early symptoms of postpartum depression include unexplained anxiety, restlessness, emotional instability, guilt, fear, and irritability. There may also be symptoms of anxiety, agitation, and anger in some patients. Some patients may experience mild symptoms in the afternoon but more severe symptoms in the early morning (4 to 5 a.m.), and patients with severe symptoms during this time

may have a higher risk of suicide. Patients with depressive symptoms also tend to have low self-esteem, believing that they are inferior to others, attributing all mistakes to themselves, feeling useless, hopeless, helpless, and worthless. Some patients may experience pessimism, depression, guilt, and other negative emotions. In addition, patients often have poor communication within their families, leading to a lack of care for their children, and over time, even hallucinations of harming their children and a severe lack of a sense of security.

1.1 Slowed Thinking

Patients with depression experience a gradual decrease in their ability to think and problem-solve, leading to slower thinking. This results in slower mental activity, difficulty in switching thoughts, reduced speech, shorter content in speech, lowered voice volume, slower speech rate, low tone, and reluctance to speak or answer questions. Patients feel that their brains have become dull, often asking themselves, "Why am I so stupid?" Communication becomes difficult. Some patients find it challenging to fall asleep, taking more than 30 minutes to do so. Some patients feel a lack of deep sleep or inadequate sleep, always feeling that they haven't slept well.

1.2 Decreased Volition

Behavioral activity decreases, and some patients may become entirely inactive, leading a passive life, having passive contact, feeling lonely, being lazy, unwilling to do anything, feeling tired, lacking energy, having poor interpersonal relationships, lying in bed all day, neglecting food and drink, and neglecting personal hygiene. In some cases, this can develop into a state known as "inhibitory stupor," which is often associated with self-harm, suicidal thoughts, or a severe tendency to harm infants[3].

1.3 Physical Symptoms

Various parts of the body experience discomfort or pain that is mostly unexplained and cannot be ruled out through physical examinations. Symptoms may include indigestion or abdominal pain, nausea, loss of appetite, palpitations, chest tightness, previous pain, weight loss, frequent urination, urgency, constipation, decreased libido, and sleep disturbances. Abdominal discomfort and palpitations are common reasons for some patients to seek medical attention. Sleep disturbances are also a primary complaint for some patients. Most of them wake up very early, have trouble falling asleep, and usually wake up 2 to 3 hours earlier than usual. During this period, there is a high risk of suicide, which is diagnostically valuable for the onset of depression. Some people have difficulty falling asleep, and they still cannot fall asleep after 30 minutes; others feel a lack of deep sleep or insufficient sleep, always feeling that they haven't slept well.

1.4 Anxiety

Anxiety coexists with depressive symptoms and becomes an important or early symptom of depression. Patients exhibit irrational restlessness, anxiety, selfishness, concern for their families, fear of accidents to their infants, and concerns that others will not take good care of the infant. These symptoms are often accompanied by restlessness, irritability, and inexplicable anxiety and difficulty concentrating.

1.5 Other Symptoms

In severe cases, patients may experience hallucinations, delusions, and other mental symptoms such as delusions of criminality, delusions of illness, and delusions of disasters. Some may also experience depersonalization, derealization, and symptoms of obsessive-compulsive disorder, believing that they are no longer their original selves.

2. Risk Factors for Postpartum Depression

Biological Factors After childbirth, estrogen is expelled from the body, resulting in long-term low levels of sex hormones. This leads to increased sensitivity of dopamine receptors and increased expression of dopamine transport proteins in the brain. The cessation of these hormonal changes can cause mood disorders in some mothers.

Prenatal Factors The extension of sick leave during pregnancy, increased prenatal visits, and pathological changes caused by complications bring significant mental stress to expectant mothers, leading to emotional instability[4].

Obstetric Factors The mode of delivery, fear of delivery pain, and delivery complications are major risk factors for postpartum depression. Patients who undergo vacuum extraction and forceps delivery have a significantly higher incidence of depression than patients who undergo cesarean section or natural delivery.

During the delivery process, psychological stress can lead to neuroendocrine disturbances, immune system suppression, and many other physiological changes that affect uterine contractions in mothers. This can increase the duration of delivery and even lead to difficult childbirth, further exacerbating anxiety and pain in mothers, promoting the occurrence of postpartum depression.

Health Factors The words and attitudes of healthcare providers can affect the mother's emotions. This is closely related to the professional ethics and awareness of healthcare personnel.

In addition to the factors mentioned above, research has found that the following factors are also key risk factors for postpartum depression:

Women with lower levels of education are more likely to suffer from postpartum depression. The reason may be that pregnant women lack awareness, which is an important cause of severe psychological stress in patients. Good social support can effectively alleviate environmental stress for pregnant women and enhance their self-confidence, which plays a crucial role in emotional control. For women, pregnancy and childbirth are stressful events, and social support mainly comes from spouses, namely marital relationships [3]. Harmonious marital relationships can effectively improve various negative emotions of mothers, such as stress, depression, and anxiety.

An important factor for maternal postpartum depression is the health of the newborn. If the newborn falls ill, it can easily lead to anxiety and depression in the mother. In addition, research reports have shown that the gender of the newborn is closely related to postpartum depression. The reason may be that the gender of the newborn does not meet the expectations of the mother and family. Unstable contractions, tension, and pain can increase the psychological pressure and discomfort of the mother. If healthcare personnel do not provide emotional support during this period, it can also lead to postpartum depression in mothers. In addition, maternal age, mode of delivery, income, and other factors are also related to the occurrence of postpartum depression to some extent[5].

3. Prevention and Treatment of Postpartum Depression

3.1 Prevention

Prenatal Psychological Support: During the prenatal period, it is important to briefly assess the pregnant woman's physical condition. If the pregnant woman has a family history of mental illness, depression, anxiety, or pregnancy-related complications, close attention should be given to pregnant women with risk factors, helping them resolve potential interpersonal conflicts, encourage them to adapt and maintain optimism and stability, build their confidence, promptly correct any negative attitudes during pregnancy, and reduce and eliminate their stress and fear.

Partial Compensatory Assistance During Delivery: Effective counseling measures should be taken during the delivery process to help mothers take appropriate actions and manage daily tasks such as eating and bowel movements during contractions when needed.

Postpartum Psychological Counseling: The postpartum period is a time of increased risk. Patients experience contractions during delivery, which require a lot of physical effort. Therefore, a supportive environment must be created to ensure the patient's recovery, reduce unnecessary visits, and avoid all forms of psychological stimulation, especially sensitive issues such as the baby's gender. The hospital room should be calm, orderly, clean, and comfortable to ensure the patient can rest in peace. Communicating frequently gain the trust of the mother, understand her psychological state in a timely manner, help her solve problems, and make her feel healthy and happy.

Establishing a Good Nurse-Patient Relationship: Healthcare personnel should have a sound mind, be optimistic, warmly welcome mothers, explain the physiological characteristics and precautions of postpartum mothers and babies, educate mothers on breastfeeding knowledge and techniques, and teach them how to communicate with the baby. Guiding postpartum women to exercise, take breaks, eat, and participate in activities within their capabilities. Furthermore, healthcare personnel should exhibit patience, punctuality in their work, accurate diagnosis, and targeted care to motivate mothers to maintain good mental health[6].

Sleep Awareness and Guidance: When discussing the benefits of breastfeeding and explaining that it is the mother's responsibility and duty, we encourage mothers to face reality correctly. We recommend some books on women's mental and physical health, explain the various negative effects of postpartum depression, and encourage patients to maintain a good emotional state. We advise mothers to rest quietly while the baby sleeps or request that family members reduce unnecessary anxiety about the newborn. We aim to create a quiet and comfortable environment, ensuring that mothers have a good night's sleep and can relax both physically and mentally.

Family and Social Support: Surveys have shown that 99% of mothers hope to receive care and understanding from their husbands. Healthcare personnel should explain the basics of postpartum depression and the psychological needs of mothers during this period to husbands, encouraging them to take care of their wives and provide comfort by making them feel familiar. Warmth from family members can help alleviate anxiety and depression in mothers more quickly. Guide husbands and other family members to provide accurate and positive feedback to the mothers, strive to create a good family atmosphere, and reduce negative emotions for the mothers, enhancing their self-confidence. Maintaining an optimistic mindset in work and family also helps build confidence.

3.2 Treatment 3.2.1 Psychological Therapy

Supportive Psychotherapy: The family support system is crucial. The care, tolerance, and understanding of spouses and family members can promote the emotional response of patients. Psychological counseling can alleviate psychological factors causing the patient's illness, such as unhealthy emotions caused by gender expectations and psychological disorders due to tense marital

or in-law relationships [4]. Specific measures include: (1) Being patient, listening carefully, and offering unconditional attention; (2) Teaching patients to recognize their own emotions and encouraging them to express their emotions and thoughts; (3) Strengthening health education to help patients objectively understand their psychological or mental problems and grow positively; (4) Encouraging patients to build confidence in overcoming the illness[7].

Cognitive-Behavioral Therapy: This therapy aims to eliminate negative emotions by changing thought patterns and behaviors, thereby altering negative cognition.

Interpersonal Psychotherapy: This therapy addresses current interpersonal relationship issues faced by patients. Introverted patients should pay special attention to interpersonal interactions.

Marital and Family Therapy: This therapy targets the entire family, especially the husband.

Medication Treatment: Suitable for moderate to severe postpartum depression and when psychotherapy is ineffective. It is more effective when combined with psychotherapy. Medication should be administered under the guidance of a psychiatrist, following principles of individualization, once, appropriate dosage, throughout, early intervention, safety, and efficacy. Adverse reactions should be closely monitored. [5]

(1) Novel Antidepressants:

Selective serotonin (5-HT) reuptake inhibitors (SSRIs): Paroxetine hydrochloride is most suitable for treating anxiety and depression. Orally administered, start with a low dose of 5-10 mg/day and increase by 5-10 mg per week. Usual dose range is 30-50 mg/day. Sertraline, orally administered, start with 20 mg/day and increase by 30-40 mg per week, with a usual dose range of 50-100 mg/day. Fluoxetine, orally administered, start with a low dose of 15 mg/day, with a usual dose range of 15-50 mg/day. Fluvoxamine, orally administered, start with a low dose of 45 mg/day, with a usual dose range of 100-300 mg/day. Citalopram, orally administered, start with a low dose of 15 mg/day, with a usual dose range of 20-60 mg/day. Escitalopram, orally administered, start with 10 mg/day, with a usual dose range of 15-20 mg/day. These drugs are widely used with rich clinical experience and minimal adverse effects.

Selective serotonin and norepinephrine reuptake inhibitors (SNRIs): Dual-action antidepressants like Venlafaxine are used to treat severe depression. Orally administered, start with a low dose of 36.5 mg/day, with a usual dose range of 70-370 mg/day. Duloxetine, effective for chronic pain and oral pain, starts with a low dose of 55 mg/day, with a usual dose range of 55-115 mg/day. Milnacipran hydrochloride, orally administered, start with a low dose of 50 mg/day, with a usual dose range of 70-100 mg/day.

Norepinephrine and specific serotonin antagonist/antidepressant (NaSSA): Mirtazapine, orally administered, starts at 10-15 mg/day, with a usual dose range of 15-40 mg/day. It increases appetite, so caution is advised regarding weight gain.

Norepinephrine-dopamine reuptake inhibitor (NDRI): Bupropion, not suitable for depression with psychotic symptoms.

Serotonin antagonist/reuptake inhibitor (SARI): Trazodone, with strong sedative effects, orally administered, starting at 150 mg/day, with a usual dose range of 150-300 mg/day.

MT1/MT2 melatonin receptor agonists and 5-HT_{2C} receptor antagonists: Agomelatine, improves sleep quality, orally administered, starts at 25 mg/day, with a usual dose range of 25-50 mg/day.

Vortioxetine, a novel multimodal antidepressant, with recommended starting and maintenance dose of 10 mg, once daily.

(2) **Tricyclic Antidepressants (TCAs):** These drugs have severe adverse effects and are rarely used. They are considered second-line treatments. Amitriptyline, 20 mg per dose, 1-2 times/day, with a maximum dose of less than 300 mg and a maintenance dose of 50-100 mg/day.

(3) **Herbal Medicine:** Herbal medicine is mainly used for treating mild to moderate depression.

For example, Shugan Jieyu Capsules, 1-2 capsules per dose, 1-2 times/day.

(4) Electroconvulsive Therapy (ECT): This therapy involves stimulating the central nervous system with sufficient electrical current to induce synchronized electrical activity in the brain cortex, resulting in seizures. It is used to treat depression effectively [7]. Modified electroconvulsive therapy (MECT) is commonly used in clinical practice. It is administered under intravenous anesthesia and muscle relaxants before electrical stimulation, making seizures less noticeable and reducing pain and complications. It is suitable for the treatment of severe depression and is widely used abroad.

4. Conclusion

The prevalence of postpartum depression is on the rise. This condition not only has severe adverse effects on the physical and mental health of the patients themselves but also poses a significant threat to the physical and mental health of their children, leading to cognitive, emotional, personality, behavioral disorders, and family relationship problems.

Therefore, society as a whole should pay close attention to postpartum depression. To ensure the physical and mental health of both mothers and infants, we must actively investigate the risk factors for postpartum depression and take preventive measures.

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