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Review Paper

Postpartum Depression: Systematic Review

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ABSTRACT

Postpartum depression is among the psychological side effects of childbirth that occur most frequently. It is a non-psychotic mental illness that strikes new moms in the first six weeks following childbirth. It is characterized by depressive symptoms such mood swings, a loss of joy, a reduction in physical activity, a reduction in function, a drop in self-esteem, and suicidal thoughts. The illness is frequent in the first six weeks following childbirth and, if addressed, can last up to a year. Additionally, maternal depression throughout pregnancy and after delivery has been impacted by the covid-19 pandemic. Tears, emotional bewilderment, dissatisfaction, and restlessness are some symptoms. Due to new mothers altered eating and sleeping patterns, detection is difficult. The most popular instrument for identifying PPD is the Edinburgh postnatal depression scale. Untreated depression can have a bad effect on a child's behaviour, development, and mother-child relationship. It can also make them more likely to grow up with anxiety and depressive symptoms. Approximately 80% of postpartum mothers have emotional issues in the first few days following delivering. PPD can be prevented and managed with the help of early diagnosis, therapy, and care of the mother.

Keywords: *Postpartum Depression, Hormonal Imbalance, Cultural Factor*

The World Health Organization defines a mother's mental health as a state of well-being in which a mother recognizes her own abilities to cope with day-to-day stresses and can work successfully and productively with the capability of contributing to her society. It is commonly established that a woman's body changes physically, physiologically, and psychologically throughout pregnancy. Along with these changes, the interaction of genetic and epigenetic modifications, changes in nutrition, and environmental factors such as socioeconomic status and interpersonal connections produces a psychological impairment known as postpartum depression (PPD) in new mothers. [1]

PPD is a curable non-psychotic mental disease marked by depressive symptoms such as mood fluctuations, loss of joy, decreased physical activity, diminished function, low self-esteem, and even suicidal ideation. The disease is common in the first six weeks after childbirth and can linger for up to a year if left untreated. Although researchers have discovered that depression during pregnancy, hormone withdrawal, and being a mother

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thinking about herself and her brand-new child, as well as a lack of social support and a poor socioeconomic level, may be causes of PPD, the origin of PPD is unknown. [2] The recent global spread of the COVID-19 pandemic across nations has also prompted substantial concern among pregnant women, which has had a significant impact on maternal depression throughout pregnancy and the postpartum period. Symptoms include restlessness, unhappiness, being emotionally confused, and shedding tears. The identification of postpartum depression is challenging due to changes in the eating and sleeping habits of new moms. Between two weeks and six months following delivery, postpartum depression screening is most beneficial. According to the diagnostic and statistical manual of mental illnesses, version V (DSM-V), postpartum depression symptoms typically start to show up four weeks after delivery and can continue even after the new baby is delivered for up to a year. Many women may still remain at risk for PPD. The most widely used tool to detect PPD is the EPDS (Edinburgh Postnatal Depression Scale). The use of EPDS showed an increased rate of diagnosing PPD from 3.7% to 10.7% before and after screening, respectively, and 19.8% of women showed unfavourable screening results. Undiagnosed depression in mothers can have a negative impact on a baby's development and behaviour, as well as mother-child bonding, and increase the likelihood that children will experience anxiety and depressive symptoms later in life. It can also cause problems with mother-child connections, emotional disturbances in children, marital conflict, and may have an indirect impact on the family's mental health.

Previous psychiatric conditions such as bipolar disorder, obsessive-compulsive disorder, eating disorder, and schizophrenia increase the chances of postpartum depression, and the first two months of pregnancy are critical for the diagnosis of postpartum depression. As a result, it is important to consider the woman's past psychiatric history in order to rule out high-risk instances. Maternal depression is the strongest predictor of postnatal paternal depression, with severe depression and high prenatal symptom ratings being the most important factors that influence them. Fathers who have a personal history of depression are more likely to exhibit reluctant or impulsive behaviour, interpersonal difficulties, and a lack of impulse control. Maternal sadness during pregnancy, marital dissatisfaction, perceived stress levels, and personal qualities are all associated with paternal depressive symptoms. The absence of father-infant contact, which is essential for the formation of the father-child bond, may be connected to postpartum depression in fathers. Understanding the difficulties in father-infant connections in the setting of postnatal depression can be crucial for the child's long-term development, and physicians should be aware of potential risks to the growing baby and depression risk in new fathers. [3]

Approximately 80% of postpartum mothers experience emotional problems in the first few days after childbirth. In nearly 30% of women, the postpartum depression phase can last for two years, while 50% have major depression throughout, with the course of depression varying and having stable moderate depression, major stable depression, or repetitive intervals of significant depression. A considerable number of postpartum women report symptoms associated with depression, such as a lack of appetite, inadequate sleep, and weariness, as well as a lack of energy for working. Additional diagnoses for postpartum depression include postpartum blues and, in certain cases, postpartum psychosis. These symptoms differ from one another. Up to 80% of new moms have postpartum blue, 10% to 15% experience PPD, and 1–2% of new mothers experience postpartum psychosis. Early diagnosis and timely treatment and management of the mother can easily prevent it. Understanding the underlying pathophysiology might also aid in the prevention and management of the condition. [4]

Etiology

Pregnant women with depression and/or anxiety can develop postpartum depression (PPD) in any trimester. PPD has an enigmatic origin. Hormonal and physical changes, a personal or family history of depression, and the stress of caring for a new infant can all contribute to the development of postpartum depression. Hormonal shifts may be a factor, according to the evidence. Determining the neuroendocrinology characteristic of PPD has proven to be difficult due to the unpredictable changes in the brain and biological systems during pregnancy and postpartum. Based on a review of exploratory investigations in PPD, women with PPD exhibit more significant alterations in HPA (hypothalamic-pituitary-adrenal axis) axis activity, but the directionality of specific hormone increases or decreases is variable. Within 24 hours of giving birth, levels of estradiol and progesterone return to those seen during pregnancy, and this abrupt change may be the cause. Many moms are unable to receive the rest they require for recuperation completely from childbirth. Insufficient sleep may lead to physical discomfort and fatigue, exacerbating postpartum depression symptoms. Major lifestyle changes brought on by caring for the infant are another factor that is usually suggested as a cause of PPD. [5]

Symptoms

Symptoms of PPD include,

i. persistent melancholy
ii. Inability to concentrate
iii. thoughts of guilt and worthlessness
iv. Irritation
v. inability to feel pleasure
vi. Sleep deprivation
vii. feeling unusually tired all day or excessive sleep during day
viii. difficulties bonding with the infant
ix. Constant thoughts of self-harm or suicide.
x. somatic symptoms like headache, fatigue, nausea, vomiting
xi. lack of appetite
xii. body weight changes
xiii. bouts of crying

Certain symptoms observed family members were emotional and behavioral instability, being excessively unhappy, stressed and anxious, detached from the outside world, altering one's way of life, taking excessive care of and being concerned about the children, ignoring the child and being delusional. [6,7]

Epidemiology

Postpartum depression has been documented in approximately 10% to 20% of mothers worldwide. According to research, between 0.5% and 63.3% of mothers worldwide have PPD. In comparison to upper-middle and high income countries, the prevalence of PPD is highest in low-middle income countries (20.14 (range: 16.39-24.50)).However, research on the prevalence of PPD during the COVID-19 pandemic have recently revealed a two-fold (34% (95% CI: 21-46%)) higher prevalence of PPD among women than before the pandemic. [6] An 18.6% prevalence of postpartum depression was found in a systematic assessment of 47 research from 18 countries. [3]

Pathophysiology

Postpartum depression has no recognized cause. It has been hypothesized that genetics, hormonal and psychological stressors, and social life stressors all play a part in the development of postpartum depression (PPD). The importance of reproductive hormones in depressive behavior suggests that PPD has a neuroendocrine etiology. There is substantial evidence to suggest that changes in reproductive hormones cause dysregulation of these hormones in sensitive women. Changes in numerous biological and endocrine systems, such as the immune system, the hypothalamic-pituitary-adrenal axis (HPA), and lactogenic hormones, can all contribute to the pathophysiology of PPD. It is well established that postpartum depression is a disease process involving the hypothalamic-pituitary-adrenal axis (HPA). In trauma and stress, the HPA axis induces the production of cortisol, and if the HPA axis function is abnormal, the response inhibits the release of catecholamines, resulting in a poor stress response. Pregnancy causes an increase in HPA-releasing hormones, which persist at increased levels for up to 12 weeks following delivery. In women who are predisposed to stress, the sudden changes in reproductive hormones like estradiol and progesterone after delivery may be a stressor. These changes may also trigger the start of depressive symptoms. Prolactin and oxytocin also have a significant impact on the etiology of PPD. Both the synthesis of breast milk and the milk let-down reflex are governed by these hormones. It is common for lactation failure and the beginning of PPD to occur together. Particularly in PPD and unintentional early weaning, low levels of oxytocin have been found. Decreased oxytocin levels during the third trimester are linked to higher depression symptoms during pregnancy and after birth. [8]

Risk factors

The risk factors such as nutrition, stress, financial constraints, and anemia, past psychiatric history, multiparous women, hormonal imbalance, and lifestyle habits, social and obstetric risk are responsible for causing PPD. [3, 4, 7]

a. Nutrition: Postpartum depression is significantly influenced by diet quality, correct intake, and nutritional status, which has a favorable impact on the mother's mental health. Lack of nutrients in the neurotransmission system during pregnancy and nursing can affect postpartum depression. Individuals suffering from depression can benefit from a well-balanced diet that includes appropriate vitamin D intake. Vitamin D, a neuroactive hormone, influences neurotransmitters associated with depressed symptoms. Reduced n-3 PUFA levels during pregnancy can also contribute to postpartum depression by changing dopamine metabolism. Postpartum depression is increased by a metabolic condition during pregnancy. As the minerals are transferred to the fetus and newborn during pregnancy and breastfeeding thus minerals such as zinc and selenium, may be lacking in women's bodies.

b. Stress: Poor living conditions, family conflicts, financial difficulties, having more children than available employment prospects, and stressful occurrences like a sick baby are all risk factors for postpartum depression.

c. Anemia: Anemia, which is common in India during pregnancy due to iron shortage, can aggravate symptoms such as weariness, irritability, and lack of attention, affecting mood and postpartum interactions. Low hemoglobin levels in the first week of life are associated with an increased risk of postpartum depression. Postpartum depression is more common in younger women after pregnancy, with women under the age of nineteen having the largest number of cases.

d. Psychiatric history & comorbidities: Postpartum depression is exacerbated by a history of despair and anxiety, premenstrual syndrome (PMS), a negative attitude toward the infant, dislike to the baby's gender, and a history of sexual abuse. Women with co-

morbidities, such as hypertension or diabetes, are more likely to experience postpartum depression.

e. **Multiparous women:** Due to psychological burden, multiparous women are more likely to experience postpartum depression, whereas primiparous women have better self-acceptance, which improves their psychosocial well-being.
f. **Hormonal imbalance:** Reproductive hormone variations following childbirth enhance women's risk of postpartum depression. According to hormone depletion theory, low levels of estradiol and progesterone can cause blues and depression. Postpartum depression is uncommon in Indian women, while other circumstances including preterm birth (less than 34 weeks gestation) and giving birth to a child with a congenital impairment can also contribute to depression.
g. **Lifestyle and social factors:** Postpartum depression can be induced by a variety of circumstances, including a lack of social support, spousal violence, and prenatal smoking. Eating habits, sleep cycle, physical activity, and exercise are among lifestyle factors that can influence illness development. Vitamin B6 is involved in the conversion of tryptophan to serotonin, which impacts mood, and lack of sleep is linked to depression. Physical activity and exercise can help alleviate depressed symptoms, boost self-esteem, and improve problem-solving abilities. Overall, identifying these factors can aid in the management of postpartum depression.
h. **Obstetric factors:** A high-risk pregnancy includes an emergency caesarean section and hospitalizations during the pregnancy. PPD is connected with meconium passage, umbilical cord prolapse, preterm or low birth child, and low hemoglobin.
i. **Cultural factor:** The birth of a female child is viewed as a risk factor in Asian and African countries due to the gender preference for male offspring, who are seen as future breadwinners and sources of support for parents, whereas females are perceived as burdens and would become a part of the groom's family after marriage.[9]

History and physical

Postpartum depression is diagnosed when at least five depressive symptoms persist for at least two weeks. When a patient experiences a major depressive episode in addition to the peripartum beginning, postpartum depression is taken into account in the diagnostic and statistical manual of mental disorders (DSM-5), but it is not specifically mentioned as a separate illness. It is characterized as a serious depressive episode occurring at the start of pregnancy or within four weeks of birth. The nine symptoms appear practically every day and in addition to them the five symptoms to be diagnosed should include either depression or anhedonia (lack of interest). Furthermore, these symptoms are not caused by any medication use or any health issue. A gloomy mood, loss of interest, sleeplessness, psychomotor slowness, guilt, fatigue, suicidal thoughts, decreased attention, and weight changes are some of the symptoms of postpartum depression (PPD) which is a disorder that affects women after giving birth. It is not caused by a drug or a medical condition, and it is not the outcome of a previous manic or hypomanic episode. Postpartum onset is defined as beginning within six weeks of delivery in the 10th edition of the International classification of diseases and related health problems (ICD-10). Symptoms include mood changes, a lack of interest, trouble falling asleep, not being hunger, lack of worth, struggle in focusing, and suicidal perception are all signs of PPD. Women may experience anxiousness as well. Hallucinations and delusions are among the psychotic symptoms that PPD patients may experience. Poor maternal-infant connections, breastfeeding difficulties, bad parenting habits, marital discord, and inferior results for the child's physical and psychological development can all be caused by PPD. Symptom remission lowers the risk of behavioural and mental issues in children. A

previous episode of PPD raises the likelihood of future severe depression, bipolar disorder, and PPD. Past personal and family history related to PPD must be noted. [8]

Differential diagnosis

- **Postpartum fever:** Postpartum fever is defined as an oral temperature of 38.0°C (100.4°F) or above on any two of the first ten consecutive days after birth, excluding the first 24 hours.[10]
- **Postpartum blues:** Low mood and mild depressive symptoms, known as the "postpartum blues," are very typical during pregnancy and the early postpartum period. They often occur 2-5 days after delivery and include weeping, anxiety, sadness, moodiness, sleep problems, lack of hunger, disorientation, and exhaustion, without interfering with everyday functioning or baby care.[11]
- **Postpartum psychosis:** Postpartum psychosis is a psychiatric emergency that can lead to suicidal or infanticidal behavior. A female can have visions, insufficient sleep for several nights, panic attacks, bizarre actions, and psychosis. It is characterized by an acute onset of manic or depressed psychosis within the first few days or weeks following birth. PPP delusions develop more quickly and frequently focus on young children. Dysphoric mania and cognitive problems can manifest as delirium.[12]
- **Hypothyroidism / Hyperthyroidism:** These illnesses can also result in mood swings. Tests for free T4 and TSH can be used to evaluate them.[8]

Evaluation

Postpartum depression is a significant medical condition that requires early identification and treatment. It is critical to include a drug and alcohol history, smoking habits, and a list of all prescription and over-the-counter medications throughout the evaluation. The diagnostic and statistical manual of mental disorders, fifth edition (DSM-5) of the United States describes PPD as episodes beginning during pregnancy and ending within 6 months of delivery. The onset period has, however, been broadly defined to include the year following delivery in clinical practice. The clinical evaluation's goals are to form the diagnosis, assess suicidal and homicidal risks, generally infanticide, and rule out other psychiatric diseases. Clinical evaluation procedures such as the structured clinical interview for the DSM-IV and questionnaires such as the edinburgh postnatal depression scale (EPDS) are extensively employed. EPDS focuses on psychological depressive symptoms and the scale is accurate and dependable. It is one of several screening measures available, and is a widely used screening instrument for PPD. It is a 10-item quiz that patients must complete in a few minutes. To identify if individuals are at risk for developing PPD, an EPDS cut-off score of 13 or higher is required. A usual score of 10 or more is utilized as the criterion for PPD positivity. This screening might help uncover cases of depression that might otherwise go undiagnosed. The EPDS is the foundation for other clinical tests. The patient health questionnaire (PHQ-2) and the 9-item (PHQ-9) are two more questionnaire-based screening methods. The hamilton rating scale for depression (HAM-D) is another screening instrument with a reliability range of 0.46 to 0.98 and the other scales for detecting similar mood disorders, such as the bipolar spectrum diagnostic scale (BSDS), may also be useful during pregnancy. Home visits by nurses are employed for screening in India. Early identification of at-risk populations is critical for primary prevention of postpartum depression, whereas early recognition is critical for secondary prevention. Screening is most effective when performed by obstetrics/gynecology, pediatrics, or public health nurses. [3, 7, 13]

Treatment

Effective Postpartum Depression (PPD) care requires a comprehensive, interdisciplinary approach. Following diagnosis and treatment of co-occurring medical and mental issues and psychosocial methods should be applied to improve self-care, strengthen social supports, and lessen unpleasant life events or stresses. Aerobic exercise can help minimize the symptoms of PPD, while infant behavioral sleep therapies can help enhance the mood of the mother. Psychosocial techniques such as peer support or nondirective counseling can be beneficial for moderate symptoms. Additional treatment options may be required to achieve remission for moderate severity symptoms. Cognitive-behavioral therapy (CBT) and interpersonal therapy (IPT) have been shown to be useful in treating postpartum depression (PPD) in mothers. CBT focuses on identifying and changing negative thought patterns and beliefs, while also encouraging moms to participate in enjoyable activities that promote positive mood and well-being. In contrast, IPT focuses on strengthening communication skills, resolving relationship issues, and increasing social support. Depending on the mother's wishes, these interventions can be offered individually or in groups. Individual therapy provides customized attention and treatment, whereas group therapy creates a supportive setting for women to share their experiences, receive validation, and learn from one another's views. Individual and group settings both provide a secure space for moms to express their emotions, get emotional support, and learn appropriate coping strategies. These interventions aim to improve the mother's overall well-being and quality of life as well as to address immediate symptoms. The majority of women who have postpartum depression (PPD) prefer psychological therapies over drug therapies, and refraining from taking medication, particularly while nursing, is a barrier to receiving adequate care. Electroconvulsive therapy (ECT) is a somatic therapy that is useful in the treatment of severe PPD, although it needs a general anesthesia and can impair memory. Focal brain stimulation therapies such as repetitive transcranial magnetic stimulation and transcranial direct current stimulation are being investigated for the treatment of PPD in women who have not experienced remission from psychotherapy or pharmacotherapy, or who are reluctant to use antidepressant medication while breastfeeding. Further investigation is needed to determine the safety and efficacy of neurostimulation therapy for PPD. Pharmacological therapy, such as selective serotonin reuptake inhibitors (SSRIs), is prescribed for severely depressed individuals who do not respond to non-pharmacological therapies or according to patient preference. Common SSRIs include paroxetine and sertraline, which are safe for breastfeeding. Sertraline is the primary treatment for new-onset postpartum depression due to its minimal excretion in breast milk. The most successful method for treating postpartum depression is through medications and telemedicine. Telemedicine Telemedicine is the electronic transmission of medical data from one location to another to enhance patient health. Following symptom remission, women should stay on medication for nine to twelve months. In complex or treatment-resistant situations, augmentation with benzodiazepines, antipsychotics, and mood stabilizers may be necessary. Omega-3 polyunsaturated fatty acids (PUFAs) are preferred sources for postpartum depression, with Docosahexaenoic acid (DHA) and Eicosapentaenoic acid (EPA) being the most biologically available sources. An allopregnanolone solution called intravenous brexanolone (BRX) controls $GABA_A$ (gamma-aminobutyric acid) receptors, raises levels in the third trimester, and promotes receptor adaptation and symptom relief. Some women with postpartum depression may be given extra benzodiazepines for anxiety and insomnia. Breastfeeding infants exposed to benzodiazepines may have sedative effects and poor feeding, so low doses are recommended. [3, 14, 15]

CONCLUSION

PPD is a psychological disease that affects new moms in the first six weeks after childbirth, causing mood changes, decreased physical activity, impaired function, lack of confidence, and suicide thinking. PPD detection has been severely impacted by the COVID-19 pandemic and screening for PPD is most effective between two weeks to six months following birth. Untreated PPD can affect the child's long term development, mother-child relationships, and eventual anxiety and depressive symptoms. PPD affects 10% to 20% of new mothers worldwide, with low- and middle-income nations having the highest frequency. Risk factors include nutrition, stress, financial restrictions, anemia, prior psychiatric history, multiparous women, hormonal imbalance, lifestyle choices, social and obstetric risk, and cultural variables. Treatment entails a multifaceted strategy that includes diagnosis, medication, and psychological interventions. Cognitive-behavioral therapy, interpersonal therapy, electroconvulsive therapy, and selective serotonin reuptake inhibitors are all effective treatments.

REFERENCES

[1] Rupanagunta, G. P., Nandave, M., Rawat, D., Upadhyay, J., Rashid, S., & Ansari, M. N. (2023). Postpartum depression: aetiology, pathogenesis and the role of nutrients and dietary supplements in prevention and management. Saudi Pharmaceutical Journal: SPJ: The Official Publication of the Saudi Pharmaceutical Society, 31(7), 1274–1293. https://doi.org/10.1016/j.jsps.2023.05.008

[2] Lema Fikadu Wedajo, Solomon Seyife Alemu, Mohammedamin Hajure Jarso, Aman Mamo Golge, & Dejene Edosa Dirirsa. (2023). late postpartum depression and associated factors: community-based cross-sectional study. 23(1). https://doi.org/10.1186/s12905-023-02444-7

[3] Shelke, A., & Chakole, S. (2022). A Review on Risk Factors of Postpartum Depression in India and Its Management. Cureus. https://doi.org/10.7759/cureus.29150

[4] Suryawanshi, O., & Pajai, S. (2022). A Comprehensive Review on Postpartum Depression. Cureus. https://doi.org/10.7759/cureus.32745

[5] Postpartum depression. (2023, September 18). Wikipedia. https://en.wikipedia.org/wiki/Postpartum_depression

[6] Abenova, M., Myssayev, A., Kanya, L., Turliuc, M. N., & Jamedinova, U. (2022). Prevalence of postpartum depression and its associated factors within a year after birth in Semey, Kazakhstan: A cross sectional study. Clinical Epidemiology and Global Health, 16, 101103. https://doi.org/10.1016/j.cegh.2022.101103

[7] Nguyen, H. T. T., Do, L. T. K., Pham, H. T. T., Hoang, A. P., Truong, H. T., & Nguyen, H. T. H. (2022). The symptoms of postpartum depression observed by family members: A pilot study. Frontiers in Psychiatry, 13. https://doi.org/10.3389/fpsyt.2022.897175

[8] Mughal, S., Azhar, Y., & Siddiqui, W. (2022, October 7). Postpartum Depression. PubMed; Stat Pearls Publishing. https://www.ncbi.nlm.nih.gov/books/NBK519070/

[9] Agrawal, I., Mehendale, A. M., & Malhotra, R. (2022). Risk factors of postpartum depression. Cureus, 14(10). https://doi.org/10.7759/cureus.30898

[10] Boushra, M., & Rahman, O. (2020). Postpartum Infection. PubMed; StatPearls Publishing. https://www.ncbi.nlm.nih.gov/books/NBK560804/

[11] Balaram, K., & Marwaha, R. (2020). Postpartum Blues. PubMed; StatPearls Publishing. https://www.ncbi.nlm.nih.gov/books/NBK554546/

[12] Friedman, S. H., Reed, E., & Ross, N. E. (2023). Postpartum Psychosis. Current Psychiatry Reports, 25. https://doi.org/10.1007/s11920-022-01406-4

[13] Yu, Y., Liang, H.-F., Chen, J., Li, Z.-B., Han, Y.-S., Chen, J.-X., & Li, J.-C. (2021). Postpartum Depression: Current Status and Possible Identification Using Biomarkers. Frontiers in Psychiatry, 12. https://doi.org/10.3389/fpsyt.2021.620371

[14] Stewart, D. E., & Vigod, S. N. (2019). Postpartum Depression: Pathophysiology, Treatment, and Emerging Therapeutics. Annual Review of Medicine, 70(1), 183–196. https://doi.org/10.1146/annurev-med-041217-011106

[15] Saharoy, R., Potdukhe, A., Wanjari, M., & Taksande, A. B. (2023). Postpartum Depression and Maternal care: Exploring the complex effects on Mothers and Infants. Cureus, 15(7). https://doi.org/10.7759/cureus.41381

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Conflict of Interest

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