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A REVIEW OF FETAL DEVELOPMENT AND PREGNANCY PROGRESSION: THE GROWING LIFE

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ABSTRACT

Pregnancy is a unique and complicated time in a woman's life. In addition to the medical and physiological level, the following changes are also evident in her social and psychological functioning. Throughout the whole pregnancy, including the postpartum phase, altered psychological functioning may take place. The body's look, femininity, affections, and sexuality all undergo noticeable changes throughout pregnancy, while the woman's function and position also acquire new characteristics. Psychological ambivalence, emotional disturbances, mixed anxiety- depressive disorder, and frequent mood swings from tiredness to exaltation are all common experiences for pregnant women, to varying degrees. Pregnancy also brings about a variety of specialized concerns about the process and result, which renders the woman especially susceptible and necessitates appropriate care, contingent on her personality style. Furthermore, pregnancy may be a powerful stressor from a psychological perspective, as it is a highly emotional condition. Perinatal maternal stress can result in a variety of issues that could have a significant impact on the newborn's physical and mental development. Numerous changes in a woman's psychological functioning during both normal and psychologically complex pregnancy stages are examined in this review, which views pregnancy as a complex psychological phenomena.

INTRODUCTION

Pregnancy should be viewed as a complicated bio-psycho-social event, with psychological character changes and altered social environment interactions occurring in tandem with bodily changes. Pregnancy can be viewed as a situation in which psychic tensions are maintained and relieved alternately by the body and soul taking on the burden together.

Consciously or unconsciously, the dread of losing one's identity, emotions of uncertainty and loneliness, fear of losing the kid, or anxiety of giving birth, are the things that lead to tension.

Psychological and physiological events are linked to pregnancy. Pregnant women find it difficult to handle the extra demands placed on them. It's crucial for the expectant mother and her unborn kid to have a pleasant mental attitude during pregnancy.

A lot of writers view being pregnant as a "psychological burden." Frequent mood fluctuations, spanning from eagerness to exaltation, are associated with these states. Additionally, there is a great deal of anxiety during pregnancy.

Women go through a variety of changes, including mood swings, worry, weariness, despair, tiredness, and excitement, according to Bjelica and Kapor-Stanulovic. Furthermore, pregnancy and the gestation period can both be stressful events that affect how well a mother and a newborn operate.

The intricacy of psychological changes during pregnancy was initially noted by writers with a psychoanalytic bent.

These alterations are connected to anxiety, regressive tendencies, The return of conflicts from the early stages of development, and the satisfying of narcissistic desires. Pregnancy is thus viewed as an innate phenomenon that reflects primitive sexuality.

Changes in a pregnant woman's psychological functioning are always linked to pregnancy. Ambivalence, mood swings that occur frequently, ranging from worry to weariness, lethargy, and sleepiness, as well as melancholy reactions to exhilaration, are typically linked to it.

Pregnancy brings about changes in body image, affectivity, and sexuality, as well as a new dimension in women's roles and positions. Many anxieties concerning the course and result of the pregnancy, particularly the delivery process, can arise even from mere thoughts of pregnancy.

These anxieties can become so severe that they develop phobia-like symptoms, which may be the cause of the avoidance of pregnancy.

It has been shown that there is a relationship between depressed emotions and motherhood, with the relationship depending on the age at first delivery.

Early parenthood may have a negative impact on a person's life experiences, disrupting the transition from youth to maturity and perhaps having long-term effects on an individual's emotional stability. After adjusting for age, gender, minority affiliation, and education, there is evidence of a negative connection between the age at the time of the first delivery and depression symptoms. Compared to those who were not parents, the participants who were under 23 at the time of their first child's birth displayed increased symptoms of depression. (Korenromp, M.J., & et al 2005).

The woman's preparation for pregnancy and her emotional reactions reveal the extent of her acceptance. The woman may have mixed feelings about her pregnancy, rejecting it, accepting it, or feeling proud of herself.

A pregnant woman may feel unattractive, defenseless, and unduly dependent on others if she views her condition as a disease. These unfavorable attitudes towards oneself are probably going to cause anxiety and irritation, which will then be transferred to the fetus through changes in the circulation (e.g., de Muylder, 1989).

The majority of healthy women experience some level of distress, which can range from issues that limit their ability to engage in social activities and interfere with their ability to work, to discomforts related to pregnancy and stomach expansion.

Pregnancy's physiological processes frequently result in related psychological issues. In actuality, there is a distinct psychological component to each physiological stage of pregnancy.

It is commonly known that immune system activation can have a major impact on mood and behavior. The immune system is in constant communication with the brain and endocrine system. For instance, a number of studies have shown that changes in cytokine expression stimulate the expression of “sickness behavior,” a highly structured neuro-immune strategy that enables an organism to combat infection as effectively as possible by inducing a variety of adaptive behavior like anhedonia, malaise, reclusion, decreased appetite, and listlessness.

It is a significant patho-psychological problem in pregnancy. "A woman's drive to control pregnancy weight gain through extreme dieting and exercise" is what it alludes to. These women suffer from both bulimia and anorexia concurrently.

Although pregorexia is not commonly recognized by obstetricians, it is a real behavior that can negatively affect the health of the fetus.

Pregorexia is still quite uncommon. Pregnant women are far more likely to gain too much weight than not enough. Women who obsessively worry about their weight gain and body image during pregnancy are "good candidates" for pregorexia.

Women with a history of eating disorders and those with a fragile social support network may be more susceptible to pregorexia.

Talking about pregnancy as if it were not real, skipping meals and obsessing about calorie counts, and excessive exercise are warning indicators of pregorexia.

Pseudocyesis, also known as false pregnancy, phantom pregnancy, or hysterical pregnancy, is a unique issue when non-pregnant women exhibit pregnancy-related symptoms and clinical indicators. Endocrinological alterations in the body result in physical changes resembling those experienced during a false pregnancy. (Poudevigne, M.S & et al 2006).

OBJECTIVE

- To examine the psychological changes of pregnancy on women’s mental health
- Investigate impact of pregnancy on relationships and social support
- Identify psychological symptoms and disorders like anxiety, post-traumatic stress disorders (PTSD), obsessive compulsive disorders I
- Improve maternal and fetal health
- To identify changes in brain functioning, memory and concentration
- Investigate socioeconomic factors to prenatal care and mental health service
- Develops evidence based guidelines for prenatal mental health care

PREGNANCY IS AN NINTH MONTH EVENT WHICH INCLUDE VARIOUS CHANGES IN MOTHER AND FOETUS

Fig. 1: Fetal Development in Pregnacy.

SOURCE: *https://preganews.com/the-stages-of-fetal-development-month-by-month-in-pregnancy/*

- **First Trimester (Weeks 1–12)**

Changes in Mothers:

Hormonal Variability: Hormones including progesterone, estrogen, and human chorionic gonadotropin (HCG) increase significantly. In addition to supporting the pregnancy, these hormones involved in early pregnancy symptoms include mood swings, and nausea (morning sickness).

Physical Changes: Mild weight gain, frequent urination, and breast tenderness are early indicators of pregnancy. Although it is still little, the uterus starts to enlarge. Fatigue and Morning Sickness: Hormonal changes and elevated metabolic demands during the first trimester often cause fatigue and nausea in many women.

Increased Blood Volume: To support the growing fetus, the cardiovascular system adapts by increasing blood volume.

Development of the Baby

Weeks 1-4: The zygote, or fertilized egg, develops into a blastocyst and implants into the lining of the uterus. The placenta starts to form early.

Weeks 5–8: The embryo is formally known as a fetus by the end of week 8. The brain, spinal cord, heart, and digestive system are among the important organs and systems that begin to develop. About week six is when the heart starts beating.

Weeks 9–12: External features such as arms, legs, fingers, and facial features begin to emerge as the fetus grows quickly. The fetus may start to move slightly. By the conclusion of this trimester, the chance of miscarriage drops. (Poon, L.C & et al 2018).

- **Second Trimester (Weeks 13–26)**

Maternal Changes

Physical Growth: To make room for the developing baby, the uterus greatly enlarges. The "baby bump" starts to show between weeks 12 and 16.

Decreased Morning Sickness: Although exhaustion and back discomfort may linger, many women report a reduction in morning sickness during this trimester.

Skin Changes: As the skin stretches, stretch marks could start to show. Pigmentation changes, such as the "mask of pregnancy" or linea nigra, can also result from hormonal changes.

Increased Energy: During the second trimester, many women report feeling less queasy and more energized.

Breast Enlargement: As the breasts continue to swell in anticipation of nursing, increased blood flow may make veins more noticeable. (Heidemann, B.H. & et al 2003).

Development of the Baby

Weeks 13–16: By week 16, the fetus is around the size of an avocado. Eyelids, eyebrows, and hair follicles are among the facial features that become more noticeable. Although the mother might not see them right away, the baby starts to move.

Weeks 17–20: The mother may begin to feel movements (also known as "quickening") by week 20, when the baby is about the size of banana. The baby's muscles get more toned and its skeleton starts to solidify.

Weeks 21–26: The infant is now expanding quickly and gaining more subcutaneous fat. Eyelashes, eyebrows, and hair all keep growing. Although the baby's lungs are still developing, it can practice breathing techniques. The baby's neurological system is maturing, and they are learning to react to light and sound.

- **Third Trimester (Weeks 27–40)**

Maternal Changes

Physical Discomfort: Many women suffer greater physical discomfort as the baby grows,

including swollen ankles, pelvic pressure, back pain, and frequent urination. Heartburn results from the uterus's size, which leaves less space for the stomach.

Practice contractions known as Braxton Hicks contractions can happen at any time during the third trimester. Although they can be uncomfortable, they are typically irregular and painless. Breast Preparation: The nipples may color as the breasts get ready for lactation by producing colostrum, or early milk.

Fatigue and Emotional Changes: The physical strain of childbirth can cause weariness. As labor draws near, some women also feel more sensitive to emotions. (Haghikia, A & et al 2014).

Development of the Baby

Weeks 27–32: The infant grows rapidly, putting on weight and body fat. The skin is less wrinkled as fat builds up beneath the skin, and the bones are fully developed but still supple. The infant may be able to perceive light through the uterine walls and has the ability to open and close its eyes.

Weeks 33–36: The baby's brain develops further and its lungs mature. Through the inhalation and exhalation of amniotic fluid, the fetus exercises breathing. As the baby gets ready to be born, their position may change to the head-down position. The baby's movements may feel more constrained because of the uterus's limited room, and fat storage increases.

Weeks 37–40: The baby keeps growing and is deemed full-term by week 37. The average baby is between 18 and 21 inches (45 and 53 cm) long and weighs between 5.5 and 8 pounds (2.5 and 3.6 kg) at full term. The baby is prepared for delivery becauetse all of its organs are fully developed. Labor may be imminent if the baby's head engages the pelvis. (Reading, A.E & et al 1984).

Trimester	Weeks	Key events in fetal development	Key events in mother
1st Trimester	1-12 Weeks	Weeks 1-2: Ovulation & Fertilization. 3-4: Implantation. 5-6: Heart begins to beat. 7-8: Major organ starts to develop. Week 9: now it called as fetus. Week 10: Rapid fetal development. Week 12: All major organ present. Movement begins. About 2-3 inches long by the end.	-Early: Morning sickness (Nausea, vomiting), Fatigue. -Hormonal change: Increase level of progesterone & HCG. -Physical changes: Mild Weight gain. Frequent urination. -Emotional : Mood swings, Angerness

2nd Trimester	13-26 Weeks	Week 13-14: Gender can be determined via ultrasound. 16: Baby's bones hard, skin becomes less transparent. 18-20: Baby's movements felt by the mother. Week 20: Baby's hearing develops, Week 24: Baby's lungs begin to develop; survival is possible outside the womb with medical assistance. Week 26:ebrows and eyelashes form	-Physical Changes: Noticeable belly growth, weight gain. Symptoms: Back pain, leg cramps, and heartburn. Mood: More stable mood, energy levels rise. Emotional: Starts bonding with the baby, excitement and anxiety about the pregnancy.
3rd Trimester	27-40Weeks	Week 28-30: Baby's brain and lungs continue developing. Week 32: Baby's bones are fully formed, but soft. Immune system matures. 36-38: Baby gains weight. Baby turns head-down, preparing for birth. Week 40: Baby is ready for birth.	-Physical Changes: Significant weight gain, swelling in feet and hands. Symptoms: shortness of breath, insomnia. Physical Discomforts: Back pain, pelvic pressure, more frequent urination, fatigue. Cervix begins to soften and dilate Emotional: Increased anxiety.

Psychological theories

1. Attachment Theory (Bowlby)
2. Self-Identity Theory (Tajfel & Turner)
3. Social Learning Theory (Bandura)
4. Cognitive Dissonance Theory (Festinger)
5. Stress-Buffering Model (Cohen & Wills)

1. Attachment Theory (Bowlby)

According to developmental psychology, John Bowlby's attachment theory explains how babies build emotional ties with their caretakers and how these ties impact a child's growth.

An evolutionary viewpoint the foundation of Bowlby's thesis is the notion that attachment instincts aid in survival. Cooing and wailing are examples of newborn behaviors that attract caregivers' attention and provide protection. (Bowlby, J 1979).

Bowlby thought that the attachment system controlled bad emotions and protected those who were at risk.

Behaviors related to attachment these behaviors, which include smiling, sobbing, and following, encourage closeness to the attachment figure. (Holmes, J 2014).

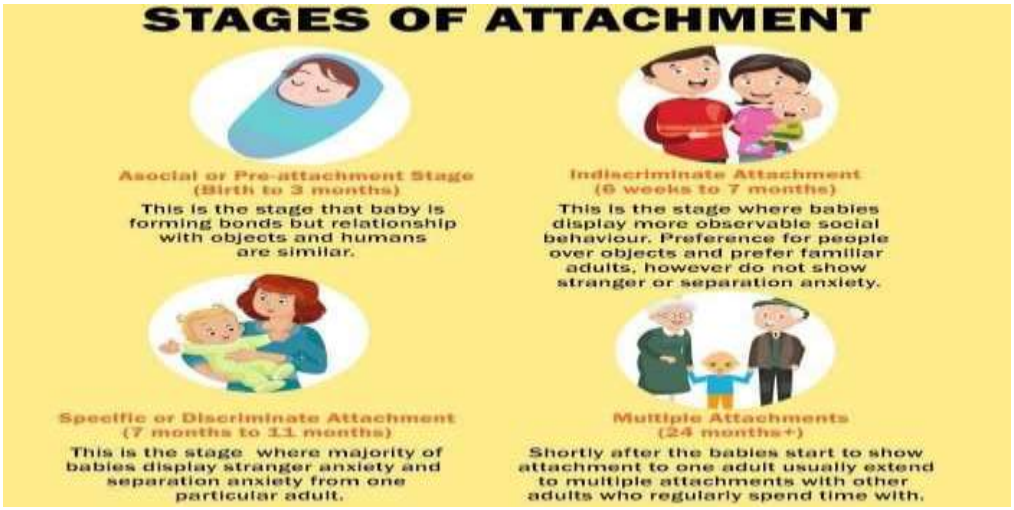

Fig. 2: Stages of Attachment.

Source: *https://images.app.goo.gl/gd9So5C3QW5wuToTg*

Models of internal operations these mental images of oneself and other people are derived from early experiences of attachment. Safe base this caregiver offers a secure environment for the kid to explore and return to.

Loveless psychopathy this disorder is typified by a difficulty to build deep connections, a lack of guilt, and a lack of compassion for other people. Bowlby thought that affectionless psychopathy could result from a prolonged lack of maternal care. (Gu, J. & et al 2021).

2. Self-Identity Theory (Tajfel & Turner)

A social psychology theory called social identity theory (SIT) describes how individuals construct their identities in connection to social groupings. In the 1970s, social psychologists John Turner and Henri Tajfel created the hypothesis. (Horowitz, M.J 2012).

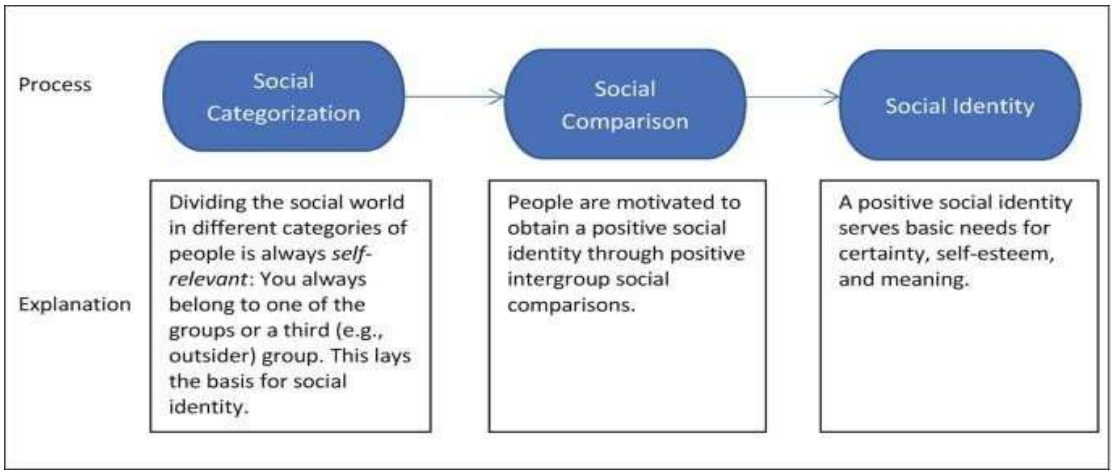

Fig. 3: Self identity theory.

Source: *https://images.app.goo.gl/rmjcvTpEMFQnaek*

Classification of groups

Individuals arrange themselves into categories, such a fan base or a professional organization. Both in- and out-groups Individuals assess the groups to which they belong (in-groups) and those to which they do not belong (out-groups).

Personal mobility depending on whether group identity is more pertinent in a certain circumstance, people are able to switch between them.

Human behavior has been demonstrated to be significantly impacted by SIT. For instance, more than 60% of participants in a National Institutes of Health study modified their behavior to conform to the standards of their group.

3. Social Learning Theory (Bandura)

Albert Bandura, a psychologist, developed the social learning theory, commonly referred to as observational learning theory, which describes how people learn by modeling and observation. According to the hypothesis, people pick up knowledge by seeing the activities of others, evaluating the results, and then internalizing that knowledge to direct their own conduct. (Bandura, A., 1977).

Internal ideas and thoughts: Internal ideas and thoughts, such as pride, contentment, and a feeling of achievement, have an impact on learning.

Bandura's live model involves watching a real person carry out a behavior.

Verbal teaching model: Listening to comprehensive descriptions of a behavior and then responding based on that description. (Islam, G., 2014).

Symbolic model: Education by media, including films, literature,

Fig. 4: Social learning theory.

Source: *https://images.app.goo.gl/9S4y6nULATign*

COMMON PSYCHOLOGICAL EVENTS

1. Emotional changes And Mood Swings.
2. Anxiety and Worry.
3. Cognitive and Behavioral changes.
4. Body Image Issues and Self-esteem.
5. Relationship Changes (partner, friends, family).
6. Identity Changes (motherhood, career).
7. Pregnancy Related Trauma and PTSD.
8. Loss of Control.
9. Emotional Overwhelm.
10. Bonding with the Fetus.
11. Depression (prenatal depression).
12. Fear of the Unknown.

Fig. 5: Psychological changes during pregnancy.

Source: *https://images.app.goo.gl/ELExPCR3Hw6vW2tD9*

- **Emotional and Mood Changes**

Mood Swings: Hormonal changes can result in abrupt changes in mood, especially during the first trimester. Anxiety, grief, enthusiasm, and irritation are some examples of these emotions. Emotional variability results from the effects of hormones such as progesterone and estrogen on brain chemistry.

Joy and Euphoria: Many women go through happy times, particularly after learning they are pregnant or after experiencing the baby's first movements. The expectation of motherhood and the attachment to the growing child frequently intensify this joyful sensation. (Christian, L.M 2012).

Irritability and Frustration: Physical discomforts (morning sickness, exhaustion, etc.) and the stress of acclimating to the body's changes during pregnancy can cause elevated emotions. These elements could make a pregnant person irritable or frustrated, particularly if they feel overburdened by the duties of pregnancy. (Horsch, A., & et al 2016).

- **Anxiety and Worries**

Fear of Miscarriage or Complications: Concern about the pregnancy's viability, especially in the first trimester, is one of the first psychological reactions that occurs throughout pregnancy. Miscarriage is a prevalent dread that is frequently brought on by past experiences or the absence of obvious pregnancy indicators. (Lorén-Guerrero, L & et al 2018).

Concern for the Infant's Health: Pregnant women may be concerned about the health of their unborn child, particularly in the face of unexpected test results or medical concerns. If there is a family history of genetic problems or if there are pregnancy issues, this anxiety may worsen. (Alvarenga, P & et al 2017).

- **Cognitive and Behavioral Changes**

Pregnancy Brain (also known as "Mommy Brain") or Cognitive Fog: People who are pregnant frequently complain of memory loss, trouble focusing, and mental fog. Pregnancy-related hormone changes, physical demands, and the stress of preparing for impending life upheavals are probably the causes of these cognitive abnormalities. (Yahya, A.H. & et al 2020).

Changes in Priorities and Ways of Thinking: Pregnancy frequently causes changes in cognitive focus, such as an increased awareness of the needs of the unborn child and future

planning. Women might reassess their professional and personal objectives, consider life after childbirth more, or concentrate on providing a secure and nurturing environment for the infant. (Tomfohr-Madsen, L.M. & et al 2016).

- **Changes in Body Image and Self-Esteem**

Body Image Issues: Due to the substantial physical changes that pregnancy brings about, some people may have feelings of insecurity regarding their looks. (Leifer, M., 1971).

Self-esteem and body image can be affected by weight gain, stretch marks, and changes in body form. Some women may feel self-conscious or less attractive, although many accept these changes as a natural aspect of pregnancy. (La Marca-Ghaemmaghami, P. & et al 2015).

- **Relationship and Social Dynamics**

Partner Dynamics: Relationship dynamics, particularly between partners, are frequently altered by pregnancy. Pregnancy-related physical changes may result in pain or alter sexual behavior, while hormonal changes may impact intimacy. (Klann, E.M. & et al 2020).

Enhanced Family Interaction: Being pregnant frequently results in increased engagement with friends, family, and social networks. While many women feel loved and supported, some could encounter unwelcome expectations, pressure, or advice regarding pregnancy and parenting from family members. (Molfese, V.J & et al 1987).

Fig. 6: Factors affecting pregnancy risk.

Source: *https://www.gecos.fr/topics-that-affect-mom-in-the-third-m-3685588.html*

- **Maternal Identity Formation**

Relationship with the Baby: During pregnancy, a person's relationship with their unborn child frequently grows stronger. With emotions of enthusiasm, affection, and protectiveness, this attachment process can start early.

- **Pregnancy-Related Trauma and PTSD**

Trauma from Past Pregnancies: For many women, traumatic events from the past, including a loss, stillbirth, or a tough childbirth, may recur during later pregnancies. Post-traumatic stress disorder (PTSD), increased anxiety, and mental suffering can result from this. (Hedegaard, M. & et al 1993)

Fear of Birth Trauma: The anxiety that comes with giving birth itself can potentially turn into a psychiatric crisis. Tokophobia (the fear of childbirth) is a condition that can result from prior experiences with difficult or traumatic deliveries. It can cause a great deal of distress and have an impact on delivery technique choices. (Baas, M.A & et al 2020).

THERE ARE MANY THERAPIES AND MEDICATIONS THAT HELPS TO TREAT THESE EVENTS

- Anxiety and Stress Management- Therapy

Cognitive behavioral therapy, or CBT, is a very successful treatment for stress and anxiety during pregnancy. It assists people in recognizing and combating harmful thought patterns as well as creating more constructive coping strategies. Additionally, CBT can help with specific phobias associated with childbirth (tokophobia) or the expectation of becoming a mother. (Staneva, A.A & et al).

Medication

SSRIs (Selective Serotonin Reuptake Inhibitors): SSRIs such as sertraline (Zoloft) and fluoxetine (Prozac) are commonly prescribed for anxiety and depression during pregnancy. These medications are generally considered safe for short-term use during pregnancy but should be prescribed and monitored by a healthcare provider. (Bellantuono, C & et al 2015)

Benzodiazepines (with caution): Medications like lorazepam (Ativan) and diazepam (Valium) are sometimes used for severe anxiety. However, these should be used with caution during pregnancy, especially in the first trimester, due to potential risks for the baby, such as congenital malformations or neonatal withdrawal symptoms. (Bellantuono, C. & et al 2013).

- Insomnia and Sleep Disturbances Management- Therapy:

Education on Sleep Hygiene: Improving sleep quality can be achieved by establishing a calming nighttime routine, cutting back on screen time before bed, and sticking to regular sleep cycles. Finding patterns that are preventing you from sleeping can be aided by a therapist. (Vizziello, G.F & et al 2008).

Medication

During pregnancy, melatonin, a natural hormone supplement, can help control sleep patterns. Although melatonin is usually regarded as safe, it should only be taken under a doctor's supervision. (Payne, J.L., 2021).

Pregnancy-related minor sleep aids include diphenhydramine (Benadryl), which should be used with caution. However, because its efficacy and safety in pregnant individuals are not well proven, it should only be taken sparingly and under supervision. (Bailey, L.A & et al 1989).

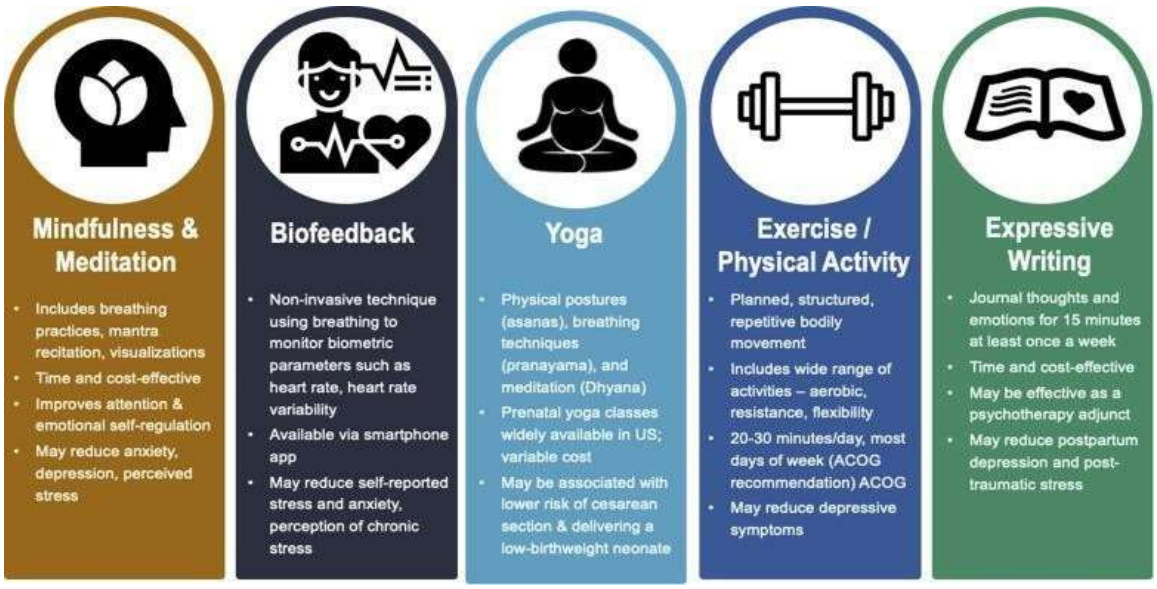

Fig. 7: Theorapies to treat psycological event in pregnancy.

Source: *https://images.app.goo.gl/UepvQtKXzCAF3bQGA*

- Post-Traumatic Stress Disorder (PTSD) or Trauma from Previous Pregnancies Management Therapy:

The goal of trauma-focused cognitive behavioral therapy (TF-CBT) is to assist people in processing and overcoming trauma. In order to lessen the emotional impact and assist people in rephrasing their memories in a more balanced manner, it entails exposing them to the

traumatic incident in a controlled setting.

The specialist therapy known as Eye Movement Desensitization and Reprocessing (EMDR).

(Goutaudier, N. & et al 2019). Medication:

SSRIs: To lessen anxiety and intrusive thoughts associated with trauma, doctors frequently give medications such as sertraline or fluoxetine to those with PTSD (Vesga-Lopez, O & et al 2008).

Beta-Blockers: Drugs such as propranolol are occasionally used to treat the physical signs of anxiety associated with trauma, such as trembling or a fast heartbeat.

Prazosin: PTSD sufferers may occasionally be prescribed prazosin, an alpha-blocker used to treat high blood pressure, to help them sleep better and have fewer nightmares. (Baas, M.A & et al 2020).

- Supportive Therapies and Lifestyle Adjustments-

- **Psychosocial Support**

Support from a spouse and Family: During pregnancy, mental health depends on having open lines of communication with a spouse and family. Stress and feelings of loneliness can be lessened by establishing a support system, communicating worries, and having reasonable expectations. (Müldner-Nieckowski, Ł & et al 2015).

Support Groups: Participating in online forums or pregnant support groups can lessen feelings of loneliness and offer emotional affirmation. People can exchange stories, counsel, and coping mechanisms in these groups. (Van der Windt, M. & et al 2021).

- **Exercise and Physical Activity**

Pregnant Yoga and Exercise: Engaging in regular physical activity, such as swimming or pregnant yoga, can enhance mood, lower anxiety, and advance general physical health.

Additionally, back pain, poor sleep, and overall pregnancy discomfort can all be alleviated by exercise.

Mind-Body Techniques: Stress, anxiety, and physical discomfort associated with pregnancy may be reduced by using techniques like acupuncture, massage therapy, and aromatherapy. (Van der Windt, M. & et al 2021).

HERE ARE SOME ADVERSE DRUG REACTIONS OF THESE MEDICATION DURING PREGNANCY

Anxiety and stress management medications ADRs-

Gastrointestinal Distress: Common adverse effects, particularly in the early phases of treatment, include dry mouth, diarrhea, and nausea.

Sleep disturbances: You may experience excessive sleepiness or insomnia. Other pregnancyrelated issues, such as hormone changes, might occasionally make this worse throughout pregnancy.

Sexual Dysfunction: This can include erectile dysfunction, delayed orgasm, or decreased libido.

Weight Gain or Loss: Due to changes in appetite, some people may gain weight while others may lose it. (Kitamura, T & et al 1993).

Insomnia and sleep related medication ADRs-

Melatonin can encourage sleep, but it can also cause tiredness or grogginess during the day, which can affect coordination and cognitive performance.

Hormonal Effects: Pregnancy hormone balance may be hampered by the moderate estrogenic effects of melatonin. Particularly in people with hormonal imbalances or high-risk pregnancies, it should be taken with caution.

Headaches or Dizziness: After taking melatonin, some people get headaches or dizziness. (Traylor, C.S. & et al 2020).

SNRIs (Serotonin-Norepinephrine Reuptake Inhibitors ADRs-

Similar to SSRIs: SNRIs have the same potential to produce sleep problems, sexual dysfunction, and gastrointestinal upset as SSRIs.

Hypertension: An important adverse effect of SNRIs is the possibility of elevated blood pressure, especially at larger dosages. Keeping an eye on this is especially crucial during pregnancy.

Like SSRIs, SNRIs can cause withdrawal symptoms in infants, including jitteriness, poor feeding, and irritability. This condition is known as neonatal withdrawal syndrome.

Headaches and dizziness: These adverse effects are more frequent when the medicine is started for the first time or when the dosage is raised.

Increased Risk of Bleeding: Similar to SSRIs, SNRIs have the potential to raise the risk of bleeding, particularly during the third trimester.

Benzodiazepines (e.g., Lorazepam, Diazepam) ADRs-

Teratogenic Effects: The FDA has classified benzodiazepines as either category D (for some drugs) or category X (for others) during pregnancy, meaning that they have been shown to harm the fetus in animal studies or human case reports. (Laegreid, L & et al 1989).

Cognitive Impairment: Benzodiazepine use during pregnancy may cause cognitive and developmental issues in the child, especially if used during the first trimester. (Shyken, J.M & et al 2019).

Sedation and Drowsiness: The sedative effects can cause drowsiness, dizziness, and motor impairment, which can increase the risk of falls and accidents, especially as the pregnancy goes on and physical coordination may be compromised.

Respiratory Depression in Newborns: Benzodiazepines can cause respiratory depression in newborns, especially if used near delivery. (Yonkers, K.A & et al 2004).

CONCLUSION

One major life event that causes considerable physical and psychological changes is pregnancy. Pregnancy-related psychological alterations can vary greatly, as this review explains, depending on a number of variables, including support networks, cultural contexts, past mental health histories, and hormone fluctuations.

Although a variety of emotions are experienced by many women, ranging from joy and excitement to worry and anxiety, these changes in mood are a normal aspect of the reproductive process and reflect the challenges and thrill of becoming a mother. In order to protect the health of the developing fetus and the mother, mental health disorders like anxiety and depression are common throughout pregnancy, and the perinatal period is a crucial time for recognizing and treating these problems.

Both the mother and the unborn child can benefit from early intervention, supportive care, and education regarding the possible psychological effects of pregnancy.

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