05 - Mental Health

GYAN - VAHINI

FROM

FOGSI, FOOD DRUGS & MEDICOSURGICAL EQUIPMENT COMMITTEE

MAY - 2025

Message From Dr. Sunita Tandulwadkar

Dr. Sunita Tandulwadkar

President FOGSI-2025

My dear FOGSI family,

It is with immense pride and a deep sense of responsibility that I address you as your President. FOGSI has always been at the forefront of championing women's health in India, and our journey continues with renewed vigour. Our mission extends beyond clinical excellence; it encompasses a holistic approach to women's well-being, acknowledging the intricate interplay of physical, emotional, and mental health.

In line with this commitment, I urge you all to pay closer attention to an often-overlooked aspect: perimenopausal mental health. This critical phase in a woman's life, marked by significant hormonal shifts, can profoundly impact her psychological state. As many of you know, this is a subject I've dedicated considerable research to, culminating in a recent FOGSI publication. It is imperative that we, as gynaecologists, are equipped to identify, address, and support our patients through these challenges. Let us integrate mental health screening and counselling into our routine practice, fostering an environment where women feel comfortable discussing their emotional struggles. Together, we can empower women to navigate perimenopause with resilience and dignity, ensuring their mental well-being receives the attention it truly deserves.

Warm regards,

Dr. Sunita Tandulwadkar

President, FOGSI 2025

Message from Dr Abha Singh

Dr. Abha Singh
Vice President FOGSI-2025

Dear Fogsians, Warm Greetings!

Greetings to my esteemed colleagues and the dedicated members of our committee!

As the Vice President overseeing your vital work, I want to express my sincere appreciation for your unwavering commitment and the remarkable efforts you consistently put forth. The progress we have made as a committee is truly commendable, and it is a testament to your collective expertise, passion, and collaborative spirit. Each of you brings invaluable perspectives and skills, which are crucial in addressing the complex challenges in women's healthcare today.
Your dedication to research, advocacy, and practical implementation is making a tangible difference on the ground. Remember, the impact of our work resonates far beyond our meetings; it directly translates into improved health outcomes and better lives for countless women across India. I encourage you to continue fostering open dialogue, sharing innovative ideas, and supporting one another. Let us leverage our strengths to overcome obstacles and push the boundaries of what's possible. I am here to support you every step of the way, and I look forward to celebrating many more successes together. Keep up the excellent work!

Best wishes,

Warm Regards,

Dr Abha Singh
Vice President North Zone Fogsi

Message from Dr Suvarna Khadilkar

Dr. Suvarna Khadilkar
Secretary General FOGSI-2025

Dear FOGSI Members,

It is my distinct pleasure to connect with you as the Secretary General of FOGSI. Our federation thrives on the active participation and dedication of its members, and it is through our collective efforts that we continue to uphold FOGSI's legacy as a leading voice in women's health. The past year has seen us embark on several impactful initiatives, from nationwide awareness campaigns to crucial policy recommendations, all aimed at enhancing the standard of obstetric and gynaecological care in India.

We are currently focusing on strengthening our outreach programmes, ensuring that evidence-based practices and health education reach even the remotest corners of our nation. Your role in this endeavour is paramount. Whether through participating in CMEs, contributing to publications, or engaging in community health drives, every contribution strengthens our mission. Let us continue to work synergistically, leveraging our vast network to advocate for women's rights, promote preventive healthcare, and address critical health disparities. I urge you all to stay engaged, provide your valuable feedback, and actively participate in FOGSI's upcoming events. Together, we can build a healthier future for the women of India.

With best and warm wishes,

Dr. Suvarna Khadilkar
Secretary General, FOGSI

Dr. Asha Jain
Chairperson
FOGSI FDMSE Committee

FOREWORD

It gives me immense satisfaction to present this fifth edition of our FDMSEC e-magazine for May 2025, dedicated to Mental Health Month, with a sharp focus on the psychological wellbeing of women and women healthcare providers.
I begin by thanking our dynamic FOGSI leadership—President Dr. Sunita Tandulwadkar, Secretary General Dr. Suvarna Khadilkar, and Vice President Incharge Dr. Abha Singh—for their constant encouragement and support. Their vision and commitment to holistic women's health continue to inspire the work of our committee.

This issue brings together the efforts of several dedicated authors who have covered mental health in obstetrics and gynaecology from diverse and relevant perspectives. I thank each one of them:
Dr. Ishan P Shah, Dr. Purvi Agrwal, Dr. Jyothi, Dr. Sugandha Goel, Dr. Neetha George, Dr. Deepti, Dr. Chandra Ponnusamy, Dr. Prerna Saigal, Dr. Himleena Gautam, Dr. Sonal Gupta, Dr. Varuna Pathak, Dr. Chitra Pandey, Dr. Shikha Sachan, Dr. Okram Sarda Devi, Dr. Ragweshwar Jyoti, and Dr. Sandhya Rani.

Each contribution provides practical insights—from managing perinatal and postpartum depression to addressing menopause-related mood disorders, ethical dilemmas in psychotropic prescribing, adolescent mental health, violence, infertility-related distress, and workplace wellbeing for women doctors. Together, they form a handbook of sorts for every practicing gynecologist.

My heartfelt thanks to Mr. Bhupendra Sahu for the thoughtful and visually appealing design of this edition.

I hope this magazine encourages reflection, empathy, and action in integrating mental health into daily gynaecological care.

Warm regards,
Dr Asha Jain
Chairperson, FOGSI FDMSE Committee (2025 – 2027)

"Know Your Numbers" is an ambitious health initiative.

- This project seeks to gather vital health data- Weight, Blood pressure, Blood Sugar Level with HbA1C, and Hemoglobin level -from women across India.
- By focusing on these key health indicators, the project aims to foster a proactive health management culture among women.
- The data collected will be instrumental in identifying prevalent health issues early and promoting interventions that can significantly reduce the incidence of che diseases.
- This initiative not only emphasizes the importance of regular health monitoring but also strives to empower women with the knowledge and tools needed to take charge of their health, ensuring they lead longer, healthier lives.
- Collect key health data: weight, blood pressure, blood sugar, HbA1C, and hemoglobin from women across India.
- Encourage proactive health management for early identification of prevalent health issues.
- Promote timely interventions to reduce chronic disease incidence.
- Empower women with knowledge and tools for better health and longevity.
- Gather vital health data: weight, blood pressure, blood sugar (HbA1C), and haemoglobin levels from women across India.
- Foster proactive health management among women.
- Identify prevalent health issues early and promote timely interventions.
- Reduce the incidence of chronic diseases through regular monitoring.
- Empower women with knowledge and tools for healthier, longer lives.

SURVEY FOR KNOW YOUR NUMBER (KYN) PROJECT

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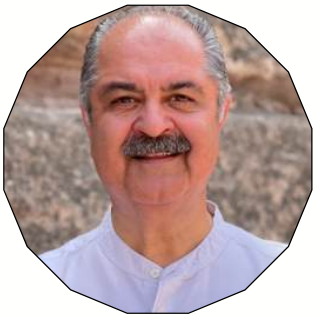

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Preface

Dr. Asha Jain
Editor, FOGSI E-Magazine
Chairperson, Food, Drugs, and Medicosurgical Equipment Committee
Federation of Obstetric and Gynaecological Societies of India (FOGSI)
May-2025

Mental Health Month offers an opportunity to focus on an element of care that often lies just below the surface of everyday obstetric and gynaecological practice: the mind-body link. This special e-magazine from the Food, Drugs & Medicosurgical Equipment Committee of FOGSI is designed to give busy clinicians a single, practical source of current knowledge on how mental health intersects with women's reproductive health needs across the lifespan. The articles that follow translate research and guideline recommendations into clear actions that can be implemented in antenatal clinics, infertility centres, menopausal health services, oncology units and operating theatres. Clinicians will also find tools to safeguard their own mental well-being.

Obstetricians and gynaecologists occupy a unique position. We see women during adolescence, reproductive years, menopause and beyond. Each stage brings social, biological and psychological stressors that can influence medical outcomes. Unrecognised anxiety may heighten labour pain; depressive symptoms can erode adherence to treatment plans; trauma may complicate pelvic examinations. The e-magazine therefore aims to normalise routine mental health inquiry, show how to use brief validated instruments, and illustrate pathways for counselling, drug therapy and referral. The tone is straightforward, rooted in Indian practice realities but aligned with global standards.

Perinatal mental health

Early detection is the first step. A practical article outlines how to embed the Edinburgh Postnatal Depression Scale and the Generalised Anxiety Disorder-7 questionnaire into the first antenatal visit. It explains training nurses to administer the forms, setting up low-cost tablet kiosks, and coding results into electronic records so that scores flag automatically. Another piece discusses stepped care after a positive screen: brief cognitive-behavioural strategies that fit into ten-minute visits, community support groups, tele-counselling, and when to involve a psychiatrist. Case examples show how early treatment improves breastfeeding, bonding and obstetric outcomes.

Post-partum depression

Pharmacological, nutritional and device-based options are covered in depth. Selective serotonin re-uptake inhibitors remain first line when symptoms are moderate to severe, and the article lists initiation doses, expected time to response and taper schedules. Brexanolone infusion protocols receive a concise summary, alongside practicalities such as arranging inpatient monitoring. Nutritional approaches—omega-3 fatty acids, vitamin D and iron optimisation—are explained with dosage tables. Emerging neurostimulation tools such as transcranial magnetic stimulation and transcranial direct-current stimulation are introduced, including safety points for lactating mothers. A brief section reminds clinicians to discuss support systems and to document suicidality checks at every visit.

Medication safety and ethics

Psychotropic safety during pregnancy and lactation often causes uncertainty. A dedicated article presents colour-coded charts that match common antidepressants, mood stabilisers and antipsychotics with trimesters and breastfeeding status. Drug–drug interactions with magnesium sulphate, oxytocin, antihypertensives and anticoagulants are highlighted. Another piece tackles the ethical and medico-legal side: components of informed consent, the importance of documenting risk-benefit discussions, and pointers drawn from Medical Council of India guidance. Templates for prescription notes and pharmacovigilance reporting are provided so that busy clinicians can copy and adapt them.

Premenstrual dysphoric disorder

Many women suffer cyclical mood swings that disrupt work and relationships. The magazine offers an update on lifestyle measures—sleep hygiene, aerobic exercise, reduced caffeine—and evidence for selective serotonin re-uptake inhibitors taken either continuously or only in the luteal phase. Hormonal interventions include combined oral pills with drospirenone, the levonorgestrel intra-uterine system and, in resistant cases, gonadotropin-releasing hormone analogues with add-back therapy. A practical algorithm walks readers from symptom diary to final management, emphasising shared decision making.

Infertility and assisted reproduction

Emotional distress is common during infertility work-ups and in vitro fertilisation cycles. The relevant article recommends the two-item Patient Health Questionnaire as a rapid screen before ovarian stimulation. Suggestions follow on how to weave relaxation training, short-acting anxiolytics and digital mindfulness apps into clinic flow. Counselling scripts demonstrate empathy while keeping the conversation concise. There is a reminder that mental health follow-up should continue through early pregnancy, especially when conceived after multiple failed cycles.

Adolescence

Adolescents bring distinct challenges such as body-image concerns, disordered eating and social-media anxiety. The magazine explains warning signs—rapid weight change, secretive eating, excessive exercise—and introduces school-based screening tools already used in parts of India. Early referral pathways to nutritionists and mental-health professionals are described. Tips for confidential consultations reassure young girls that their disclosures about self-harm or sexual activity will be handled sensitively yet responsibly.

Menopause and mood

Hormonal fluctuations in perimenopause may precipitate depression or anxiety. One article integrates evidence on systemic oestrogen–progesterone therapy, non-hormonal agents like low-dose paroxetine, and cognitive-behavioural approaches for hot flushes and sleep disturbance. Lifestyle devices—cooling pillows, wearable temperature sensors—are briefly reviewed. Tables summarise relative risks help clinicians individualise therapy for women with cardiovascular disease, venous thrombo-embolism risk or breast cancer history.

Gynaecologic oncology

Cancer diagnosis and treatment create a heavy psychological burden. The oncology piece discusses routine anxiety and depression screening before surgery, chemotherapy or radiation. It reminds readers to watch for interactions between selective serotonin re-uptake inhibitors and tamoxifen or between mood stabilisers and anti-emetics. Mindfulness apps and structured support groups have been shown to improve quality of life and adherence; examples from regional cancer centres illustrate successful implementation.

Violence, trauma and substance use

Intimate partner violence leaves physical and mental scars. An article sets out a trauma-informed approach to gynaecological care—private consultation spaces, non-judgemental questioning, carefully documented findings, safety-planning applications and referral to legal aid. Substance-use disorders are explored with focus on perinatal opioid and alcohol use. Medication-assisted treatment with buprenorphine or naltrexone, neonatal abstinence syndrome protocols and breastfeeding considerations are summarised, enabling obstetricians to coordinate multidisciplinary care.

Nutrition, sexual health and digital practice

Diet exerts strong influence on mood through the gut–brain axis. Nutritional psychiatry is introduced with guidance on micronutrients, fermented foods and probiotic medical foods suitable for different life stages. Female sexual dysfunction often arises or worsens with psychotropic medication; the article on this topic covers pharmacological options such as flibanserin and bremelanotide, alongside non-drug aids including lubricants and pelvic-floor stimulators. Telepsychiatry has grown rapidly; the magazine lists regulatory safeguards, e-prescription norms and tips for protecting patient data. A concise guide for emergency mental-health situations outlines rapid tranquillisation in labour wards, co-operation with psychiatry and legal consent issues.

Workplace mental health

Finally, clinician well-being is essential for safe patient care. An article on workplace mental health for women doctors and paramedics introduces validated burn-out metrics, peer-support circles and ergonomic adjustments. Nutraceutical aids for shift work, such as controlled-release melatonin and magnesium, are briefly reviewed. Readers are encouraged to set boundaries, seek help early and model self-care for their teams.

Closing remarks

Every article in this e-magazine is grounded in evidence from peer-reviewed guidelines, systematic reviews and landmark studies, yet remains practical for day-to-day use. We hope it empowers clinicians to integrate mental-health thinking into every consultation, prescription and surgical plan. At the same time, we recognise the pressures on healthcare professionals themselves and have included resources to foster resilience. The ultimate goal is comprehensive, compassionate care for women at every stage of life, delivered by professionals who also care for their own mental health. We invite you to explore, reflect and share these insights with colleagues and trainees, ensuring that mental well-being remains central to women's health in India.

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01

Perinatal Depression & Anxiety: Screening Pathways for Busy Ob-Gyn Clinics

Author - Dr Ishan P Shah
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Sr. Obstetrician & Gynecologist
Laparoscopic & Vaginal Surgeon

I. Introduction to Perinatal Mental Health

Perinatal depression (PND) and perinatal anxiety (PNA) are significant global health concerns, affecting a substantial proportion of individuals during pregnancy and the first postpartum year. These prevalent and potentially severe mood and anxiety disorders often go undiagnosed and untreated, with up to 50% of cases missed due to stigma and reluctance to disclose symptoms. Untreated, PND and PNA can lead to profound and lasting negative consequences for the birthing parent, infant, and family.

It is crucial to differentiate clinical perinatal depression and anxiety from "postpartum blues" or "baby blues," a transient emotional condition affecting up to 85% of new mothers. Symptoms like crying spells, irritability, and anxiety typically resolve within two weeks without intervention. The commonality and societal normalization of "baby blues" can unfortunately lead to the dismissal of more severe or persistent symptoms of true perinatal mental health disorders, delaying diagnosis and intervention.

II. Definitions and Diagnostic Criteria

Accurate identification requires clear definitions and diagnostic parameters.

Perinatal Depression

Perinatal depression is a major depressive episode occurring during pregnancy or within the first year postpartum. The DSM-5-TR classifies it with a "peripartum onset" specifier if symptoms begin during pregnancy or within four weeks after delivery. Diagnosis requires at least five depressive symptoms for a minimum of two weeks, including either depressed mood or anhedonia.

Perinatal Anxiety

Perinatal anxiety (PNA) is anxiety occurring during pregnancy and up to 12 months postpartum. It is highly prevalent and often co-occurs with PND; nearly two-thirds of individuals with PND also experience an anxiety disorder. There is no formal DSM-5 designation for "perinatal anxiety," posing diagnostic challenges. PNA symptoms often align with Generalized Anxiety Disorder (GAD), but in the perinatal context, they frequently focus on the baby's health and safety, and diagnosis may be considered after one to two weeks. This lack of formal designation contributes to under-recognition and insufficient research.

Common PNA manifestations include excessive worrying, feeling "on edge," inability to control worry, and difficulty relaxing. Physical symptoms include palpitations, sweating, shakiness, restlessness, and tense muscles. Cognitive/emotional symptoms involve rumination about the baby's harm, difficulty concentrating, irritability, and a sense of dread. Behavioral changes include social avoidance, nocturnal vigilance (fear of baby stopping breathing), and constant checking. PNA can also manifest as GAD, Panic Disorder, Social Phobia, Specific Phobias, or Obsessive-Compulsive Disorder (OCD).

Table 1: Comparative Diagnostic Criteria for Perinatal Depression and Anxiety (DSM-5-TR Based)

Condition	Definition/Context	Diagnostic Criteria (DSM-5-TR Based)	Common Symptoms/Manifestations
Perinatal Depression (PND)	Major depressive episode during pregnancy or within 1 year postpartum. DSM-5-TR "peripartum onset" specifier applies if onset is during pregnancy or within 4 weeks postpartum.	At least 5 symptoms present for ≥2 weeks, including either depressed mood or anhedonia. Symptoms cause significant distress/impairment. Not attributable to substance use, medical condition, or psychotic/manic/hypomanic episode.	Persistent sadness, anhedonia, appetite/sleep changes, fatigue, psychomotor agitation/retardation, worthlessness/guilt, poor concentration, suicidal thoughts, crying, poor bonding, fear of harming baby, irritability, self-blame.
Perinatal Anxiety (PNA)	Anxiety occurring during pregnancy and up to 12 months postpartum. Often comorbid with PND.	No formal DSM-5 designation for PNA. Symptoms often align with GAD (excessive worry ≥6 months, difficult to control), but in perinatal context, symptoms tend to be specific to baby's health/safety and may be considered after 1-2 weeks.	Excessive worrying, physical symptoms (palpitations, sweating, shakiness, restlessness, tense muscles), rumination (baby harm), nocturnal vigilance, social avoidance, irritability, feeling on edge/panicky, constant checking on baby.
Postpartum Blues ("Baby Blues")	Transient emotional condition, typically 2-3 days to 2 weeks postpartum. Affects up to 85% of new mothers.	Short-lasting, self-resolving. Symptoms do not interfere with daily activities and do not meet criteria for major depressive disorder.	Crying for no reason, irritability, restlessness, anxiety, dysphoric affect, insomnia, appetite changes, confusion, fatigue.

III. Epidemiology and Prevalence

Perinatal depression affects approximately 1 in 7 individuals globally, with some reports indicating it impacts as many as one in four women. Worldwide prevalence ranges from 6.5% to 20%. The WHO estimates 10% of pregnant women and 13% of new mothers experience a mental disorder, predominantly depression. Prevalence is higher in developing countries (15.6% during pregnancy, 19.8% postpartum) , with antenatal PND estimated at 30% and postnatal PND at 20% in low- and middle-income countries (LMICs). In the US, PND affects 15% to 20% of new mothers.

IV. Risk Factors

Perinatal depression and anxiety are influenced by a complex interplay of factors:

- **Biological Factors**: Rapid changes in sex hormones (estrogen, progesterone), genetic predisposition, family history of mental illness, thyroid disorders, gestational diabetes, and premenstrual syndrome.
- **Psychological Factors**: Personal history of depression/anxiety/bipolar disorder, negative attitude towards the baby, history of sexual abuse or trauma, unwanted pregnancies, difficult infant temperaments, perfectionism, and Adverse Childhood Experiences (ACEs). Benevolent Childhood Experiences (BCEs) may be protective.
- **Social Factors**: Lack of social support, domestic violence, marital discord, poverty, social isolation, young maternal age, and rigid cultural gender norms.
- **Environmental/Lifestyle Factors**: Stressful life events, chronic sleep deprivation, poor eating habits, nutritional deficiencies, smoking, substance use, urban living, and obstetric/medical complications (e.g., high-risk pregnancy, traumatic childbirth, preterm infant, NICU stay). Abrupt medication cessation also increases risk.
- **Paternal Risk Factors**: History of depression in parent, marital conflict, unintended pregnancy, and crucially, prenatal and postnatal maternal depression, which significantly increases paternal risk (24-50%).

Table 2: Comprehensive Overview of Risk Factors for Perinatal Depression and Anxiety

Category	Specific Risk Factors
Biological	Rapid hormonal changes (estrogen, progesterone), genetic predisposition, family history of mental illness, thyroid disorders, gestational diabetes, premenstrual syndrome.
Psychological	Personal history of depression/anxiety/bipolar disorder, negative attitude towards baby, reluctance regarding baby's sex, history of sexual abuse/trauma, unwanted/unplanned pregnancy, difficult infant temperament, perfectionism/control issues, Adverse Childhood Experiences (ACEs).
Social	Lack of social support, domestic violence/spousal abuse, marital discord/conflict, poverty/low socioeconomic status, isolation, young maternal age (teen mothers), rigid cultural gender norms (e.g., pressure for male child), migration, extreme stress.
Environmental/Lifestyle/Obstetric	Stressful life events, sleep deprivation, poor eating habits, decreased physical activity, vitamin B6 deficiency, smoking, substance use disorders, urban living, high-risk pregnancy, hospitalization during pregnancy, traumatic childbirth (e.g., emergency C-section), preterm/low birth weight infant, NICU stay, stressful transitions (e.g., returning to work), abrupt medication discontinuation.
Paternal-Specific	History of depression (either parent), marital conflict, unintended pregnancy, maternal perinatal depression (most significant risk factor, increasing paternal risk to 24-50%).

V. Clinical Manifestations and Symptoms

Depressive Symptoms (Perinatal Depression)

Core symptoms are persistent sadness or depressed mood, and loss of interest or pleasure (anhedonia). Associated symptoms include appetite/sleep changes, fatigue, psychomotor agitation/retardation, worthlessness/guilt, poor concentration, suicidal thoughts, crying, poor infant bonding, feelings of inadequacy, and fear of harming the baby or self.

Anxiety Symptoms (Perinatal Anxiety)

Core manifestations include excessive worrying, feeling "on edge," inability to control worry, and difficulty relaxing.

VI. Impact on Maternal, Infant, and Family Well-being

Untreated perinatal depression and anxiety create a "toxic stress" environment with profound, cascading negative impacts.

Impact on Maternal Health

Untreated PND is a common and costly obstetric complication. It increases the risk of parental suicide, the second most common cause of postpartum mortality. It is associated with adverse obstetric outcomes like preeclampsia, preterm delivery, prolonged labor, and increased C-sections. Mothers may engage in high-risk behaviors (alcohol, smoking, substance abuse), experience impaired attention/judgment, hindered bonding, distorted perception of the infant, and difficulty with breastfeeding. Feelings of isolation, guilt, or shame are common.

Impact on Infant Development

PND acts as "toxic stress" negatively impacting infant brain development, leading to long-term disturbances in physical, emotional, cognitive, and social development. Infants may have low birth weight and neurodevelopmental complications. Children may experience socioemotional, behavioral, and linguistic delays, increased incidence of ADHD, learning disabilities, intellectual disability, and ASD.

Impact on Family Dynamics

Moderate to severe perinatal mental health disorders affect the entire family, leading to relationship problems and increased marital conflict. Partners and family members manage their own worries, cope with changing relationships, and often take on additional childcare/household tasks under stress.

Table 3: Long-Term Outcomes of Untreated Perinatal Depression and Anxiety on Mothers, Infants, and Families

Affected Party	Key Long-Term Outcomes of Untreated Conditions
Mothers	Increased risk of parental suicide (2nd leading cause of postpartum mortality), severe emotional/general medical problems, preeclampsia, preterm delivery, prolonged labor, increased C-section rates, engagement in high-risk behaviors (e.g., substance use), impaired attention/judgment concerning safety, hindered bonding/attachment, difficulty breastfeeding, increased relationship conflict, feelings of isolation, guilt, shame.
Infants/Children	"Toxic stress" impacting brain development, long-term developmental delays (physical, emotional, cognitive, social), lower IQ scores, increased incidence of ADHD, ASD, learning disabilities, intellectual disability, conduct disorders (ODD, CD), increased physical aggression, parental attachment issues, poor social/academic performance, increased risk of developing mood disorders themselves.
Families	Significant strain on family relationships, increased marital/partner conflict, partners managing their own mental health difficulties, increased childcare burden on partners, impact on other children who may not understand the situation or express distress, potential deterioration of the couple relationship, affected relationships with baby if mother requires inpatient care.

VII. Screening and Diagnosis

Perinatal depression is a clinical medical condition diagnosed by healthcare professionals through comprehensive discussions. There is no single diagnostic test. Diagnosis relies on at least five depressive symptoms for two weeks, including depressed mood or anhedonia. Differential diagnoses include postpartum baby blues, thyroid disorders, sleep disturbances, substance use, adjustment disorder, and PTSD. Ruling out postpartum psychosis and bipolar disorder is crucial.

Validated screening tools include:

- **Edinburgh Postnatal Depression Scale (EPDS)**: 10-item self-report, validated for pregnancy/postpartum. Cut-off 10 or 11 for probable depression. Questions 3, 4, and 5 can reflect anxiety. Reliable for fathers (cut-off 5/6) .
- **Patient Health Questionnaire (PHQ-9)**: 9-item self-report, validated for general and perinatal populations. Cut-off 10 or 12. Question 9 screens for suicide risk .
- **Perinatal Anxiety Screening Scale (PASS)**: 31-item self-report specifically for perinatal anxiety, assessing four categories. Cut-off 26 indicates high likelihood of PNA .
- **Generalized Anxiety Disorder (GAD-7/GAD-2)**: Validated for general anxiety, also used in perinatal population.

Screening tools are not diagnostic; a positive screen requires comprehensive clinical evaluation. Effective screening depends on a robust "system of care" for follow-up and treatment. Cultural competency in screening is vital, as standard tools may not capture symptoms across diverse groups who express distress physically. Screening should be private, in the client's native language, and normalizing.

Table 4: Key Perinatal Mental Health Screening Tools and Their Applications

Tool Name	Description & Primary Focus	Key Features & Considerations	Application/Purpose
Edinburgh Postnatal Depression Scale (EPDS)	10-item self-report. Screens for depression and anxiety symptoms (negative mood, anhedonia, suicidal ideation, fearfulness, feeling overwhelmed).	Validated for pregnancy & postpartum. Cut-off: 10-11 for probable depression. Q3, 4, 5 reflect anxiety. Reliable for fathers (cut-off 5/6).	Universal screening, identifying need for follow-up, monitoring symptom change.
Patient Health Questionnaire (PHQ-9)	9-item self-report. Screens for depression severity and aligns with DSM diagnostic criteria.	Validated for general population & perinatal period. Cut-off: 10-12 for positive screen. Q9 screens for suicide risk.	Universal screening, provisional diagnosis, monitoring symptom change.
Perinatal Anxiety Screening Scale (PASS)	31-item self-report. Specifically screens for a broad range of perinatal anxiety symptoms.	Assesses 4 categories: acute anxiety/adjustment, general worry/specific fears, perfectionism/control/trauma, social anxiety. Cut-off: 26 for high likelihood of PNA.	Specific screening for perinatal anxiety, assessing severity, identifying need for further diagnostic evaluation.
Generalized Anxiety Disorder (GAD-7/GAD-2)	7-item/2-item self-report. Screens for generalized anxiety disorder.	Validated for general population; also used in perinatal. Scores indicate severity (mild, moderate, severe).	General anxiety screening in the perinatal population.

VIII. Management and Treatment Strategies

Effective management involves tailored, evidence-based strategies.

Psychotherapy Approaches

Often preferred first-line treatment for mild to moderate PND/PNA.

- **Cognitive Behavioral Therapy (CBT)**: Effective in reducing depressive and anxiety symptoms, improving remission rates .
- **Interpersonal Therapy (IPT)**: Effective in reducing depressive symptoms and increasing remission rates, focusing on relationships and social support .
- **Behavioral Activation (BA)**: May be more effective than standard care for depressive symptoms.
- **Mindfulness-Based Interventions (MBIs) and Yoga**: Show benefit for perinatal anxiety and depression, promoting stress reduction.

Pharmacotherapy

Often recommended for moderate to severe PND, frequently combined with psychotherapy.

- **Antidepressants**: SSRIs are generally first-choice. Sertraline is preferred due to minimal breast milk passage and safety research . Paroxetine, Nortriptyline, and Imipramine are also considered safe for breastfeeding . SNRIs and TCAs are also recommended by ACOG. Lowest effective dose should be used, with full improvement taking 4-8 weeks. Continued treatment for 6-12 months is recommended to prevent relapse; abrupt discontinuation is discouraged due to high recurrence risk and withdrawal symptoms.

- **Novel Treatments**: Brexanolone, an intravenous neurosteroid, approved for PND, offers rapid onset but has barriers like high cost and 60-hour inpatient monitoring due to side effects . Electroconvulsive Therapy (ECT) may be used for severe postpartum depression with psychotic features unresponsive to medication.

Complementary and Alternative Medicine (CAM) Therapies

Some evidence supports augmentation with omega-3 fatty acids, exercise, or folate. Bright light therapy, acupuncture, and massage may offer some benefit but should not replace standard therapies. Regular physical activity is beneficial. A critical concern is limited reproductive safety and efficacy data for CAMs, coupled with lack of strict FDA regulation for dietary supplements, raising concerns about purity and interactions.

Treatment choice is highly personal, weighing risks and benefits, especially for medication during pregnancy/breastfeeding. Shared decision-making is crucial.

In a busy Obstetrics & Gynecology clinic in India, efficiently screening for perinatal depression and anxiety requires a streamlined yet culturally sensitive approach. The goal is to identify individuals at risk without overburdening clinic workflows, ensuring timely follow-up.

1. **Integrate Universal Screening Tools**: Utilize validated, self-administered screening tools that are quick to complete and available in local languages. The Edinburgh Postnatal Depression Scale (EPDS) is highly recommended as it screens for both depressive and anxiety symptoms, including suicidal ideation, and has been validated for use during pregnancy and postpartum. The Patient Health Questionnaire (PHQ-9) is another option for depression, and its Question 9 specifically screens for suicide risk, which requires immediate attention. For a more specific anxiety screen, the Perinatal Anxiety Screening Scale (PASS) or GAD-7/GAD-2 can be considered if resources allow.

2. Strategic Timing for Screening: Implement consistent screening at key points:

- **Initial prenatal visit**: To identify existing conditions or early onset.
- **Later in pregnancy (e.g., second or third trimester)**: As symptoms can emerge or worsen.
- **Postpartum visits (e.g., 6-week check-up and up to 12 months)**: The average onset of postpartum depression is around 14 weeks, and peak prevalence is at three months postpartum.

3. Optimize Administration and Environment:

- **Self-administration**: Provide questionnaires for patients to complete while waiting, reducing clinician time burden.
- **Privacy and language**: Ensure the screening is conducted in a private setting and, if possible, in the patient's native language to encourage honest disclosure.
- **Normalize the conversation**: Introduce the screening in a caring, informative manner that normalizes perinatal mental health needs, helping to reduce stigma. In India, where cultural stigmas around mental illness are prevalent, this is particularly crucial. Some cultures may express distress through physical complaints, so clinicians should be trained to recognize these presentations.

4. Establish a Clear Response Protocol: Screening tools are not diagnostic; a positive screen requires further clinical evaluation. A robust "system of care" is essential, as screening without follow-up is ineffective.

- **Immediate assessment**: Have a protocol for immediate suicide risk assessment if indicated by screening results.
- **Referral pathways**: Develop clear referral pathways to mental health professionals, support groups, or community-based programs. In India, where access to specialists may be limited, leveraging non-specialist health providers and community-based interventions (like the Thinking Healthy Programme, which has been effective in India) is vital.
- **Provider training**: Train clinic staff to interpret screening results, conduct brief follow-up conversations, and facilitate referrals, ensuring culturally competent and trauma-informed care.

By integrating these steps, busy clinics can effectively identify and support perinatal patients, bridging the gap between screening and necessary care.

IX. Prevention and Support Systems

A multi-layered approach is crucial.

Preventative Measures

Counselling and evidence-based psychotherapies (CBT, IPT) are effective preventative measures for high-risk patients. Early identification during pregnancy is key to preventing worsening postpartum depression.

Social Support and Practical Help

Social support is a cornerstone of recovery. Prioritizing sleep, self-care, enjoyable activities, and seeking help from others are practical strategies. Support groups provide community. Family and friends offer emotional and practical assistance.

Mental Health Counseling and Medical Evaluation

X. Public Health Initiatives and Policy Recommendations

Public health initiatives increasingly emphasize culturally competent, trauma-informed, and anti-racist approaches to address health inequities, particularly for ethnic minority women.

XI. Research Gaps and Future Directions

Several critical research gaps remain.

XII. Conclusion

Perinatal depression and anxiety are prevalent, complex conditions with profound, long-term adverse impacts on mothers, infants, and families, including increased risks of maternal suicide and developmental delays in children. Effective intervention is critical. While validated screening tools exist, their utility is maximized within a comprehensive, culturally competent system of care. Evidence-based psychotherapies and pharmacotherapies offer effective treatment, complemented by emerging therapies. Addressing perinatal mental health is a global imperative requiring widespread awareness, sustained funding for community-based mental health, and advocacy for accessible, equitable services. Systemic policy changes are crucial to overcome barriers. Significant research gaps persist, particularly concerning perinatal anxiety and service delivery optimization. Future directions involve leveraging technology and understanding upstream predictors and protective factors. A holistic, family-centered, and equitable approach, grounded in cultural sensitivity and trauma-informed care, is paramount to improving outcomes for all birthing individuals and their families.

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02

Psychotropic Drug Safety in Pregnancy & Lactation

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Introduction:

The perinatal period is a critical window in a woman's life, where psychiatric stability is essential not just for maternal well-being but also for fetal development and early infant bonding. The ethical and clinical dilemma lies in balancing the **risks of untreated psychiatric illness**—including preterm labor, poor maternal-infant bonding, suicide, and infanticide—against the potential **teratogenic and neonatal effects of psychotropics.**

Recent evidence suggests that most psychotropics, when judiciously used, have a **favorable safety profile** in pregnancy and lactation. However, drug-specific nuances, dose–response relationships, and timing of exposure all influence outcomes. This chapter provides a structured, clinically oriented guide for specialists navigating these decisions

Principles of Psychopharmacology in the Perinatal Period

1. Risk–Benefit Assessment Must Be Individualized: Both pharmacologic and non-pharmacologic options should be weighed in the context of illness severity, prior relapse history, and patient preference.
2. Trimester-Specific Vulnerability: Teratogenic risks are highest during organogenesis (weeks 3–8), while functional risks—such as neurodevelopmental impact or neonatal withdrawal—may occur later.
3. Placental and Breast Milk Transfer: Most psychotropics cross the placenta and are detectable in breast milk. Degree of transfer depends on molecular weight, lipid solubility, and protein binding.
4. Tapering or Discontinuation Risks: Abrupt cessation of mood stabilizers or antipsychotics may precipitate relapse and increase suicide risk.

Antidepressants

Selective Serotonin Reuptake Inhibitors (SSRIs)

selective Serotonin Reuptake Inhibitors (SSRIs) remain the first-line agents for moderate to severe antenatal depression and anxiety. Data suggest that most SSRIs do **not significantly increase the risk of major congenital malformations** when used appropriately, though some associations with neonatal adaptation syndrome exist

Drug	Pregnancy Risk	Lactation Consideration
Sertraline	Preferred SSRI;	minimal fetal risk Low levels in milk; considered safe
Fluoxetine	Long half-life; risk of neonatal jitteriness	May accumulate in infant; monitor
Paroxetine	Small risk of cardiac malformations	Use with caution; avoid if possible
Citalopram	Generally safe QT prolongation risk	Low levels in breast milk
Escitalopram	Limited data likely safe	Acceptable in lactation

A meta-analysis by Ornoy and Koren (2019) confirms that **SSRIs overall have a favorable risk–benefit ratio**, particularly when maternal illness is moderate to severe.[1]

Mood Stabilizers

Mood stabilizers—especially for bipolar spectrum disorders—pose **some of the most significant teratogenic risks** but may be lifesaving in preventing peripartum manic or depressive episodes. Continuous psychiatric oversight is essential

Drug	Pregnancy Risk	Lactation Consideration
Lithium	Ebstein anomaly (1st trimester); neonatal toxicity	May accumulate in infant; monitor
Valproate	Neural tube defects (NTDs), autism, cognitive delay	Contraindicated in lactation
Carbamazepine	NTDs, craniofacial anomalies	Low levels in milk; monitor for sedation
Lamotrigine	Safer profile; oral clefts possible	Relatively safe; monitor rash

NOTE:

- Avoid valproate in women of reproductive age unless no alternatives exist.
- Folic acid (5 mg/day) should be initiated preconceptionally in all women on anticonvulsants
- Galbally et al. (2020) emphasize that lamotrigine is the safest mood stabilizer in pregnancy, while valproate should be avoided entirely due to profound teratogenicity.[4]

Antipsychotics

First- and Second-Generation Antipsychotics

Antipsychotics are often necessary for schizophrenia, schizoaffective disorders, and severe bipolar states. Their use is increasing in pregnancy, particularly the second-generation agents (SGAs). Most SGAs are not associated with structural malformations but do carry **metabolic and neonatal adaptation risks**

Drug	Pregnancy Risk	
Olanzapine	Weight gain, GDM risk	Low level in milk, monitor infant
Risperidone	Possible EPS/neonatal withdrawal	Higher milk excretion, caution
Quetiapine	Relatively safe, minimal EPS risk	Favorable, low milk levels
Haloperidol	Long safety record, EPS possible	Acceptable, monitor for sedation
Aripiprazole	Emerging evidence of safety	Limited data; likely safe

Monitoring

- Monitor for gestational diabetes mellitus (GDM) and weight gain in second-generation antipsychotic use.
- Newborns exposed to antipsychotics late in gestation may experience withdrawal or EPS.
- Andrade et al. (2020) linked SGAs—especially olanzapine and risperidone—with an increased **risk of gestational diabetes**, necessitating routine screening during pregnancy.[2]

Drug–Drug Interactions with Obstetric Medications

Understanding pharmacodynamic and pharmacokinetic interactions is critical in co-management with obstetricians.

Psychotropic Drug	Obstetric Drug	interaction
SSRIs	NSAIDs	Neurotoxicity, potentiation of adverse effects
Lithium	Magnesium sulfate	Higher milk excretion, caution

Antipsychotics	Antiemetics (e.g., metoclopramide)	Additive EPS risk
Benzodiazepines	Oxytocin	Enhanced sedation, hypotension
Carbamazepine	Hormonal contraceptives	Reduced efficacy of contraceptive

FOGSI Recommendations and Prescribing Cautions

The Federation of Obstetric and Gynaecological Societies of India (FOGSI) emphasizes:

1. Shared decision-making: Psychotropic prescriptions should involve both obstetrician and psychiatrist input.
2. Avoidance of valproate: Especially in adolescent and reproductive-age females unless no alternatives exist.
3. First-trimester caution: Minimize drug exposure during organogenesis unless essential.
4. Lactation planning: Encourage breastfeeding with drugs shown to have minimal infant exposure.
5. Documentation: Informed consent and documentation of risks and alternatives are essential medico-legal safeguards.

Electroconvulsive Therapy (ECT)

In severe depression, catatonia, or treatment-resistant psychosis, **ECT remains a safe and effective modality** during pregnancy, particularly in the second and third trimesters.

According to the APA (2020) guidelines, ECT does **not increase the risk of fetal malformation** and should not be withheld when indicated.[5]

Neonatal Adaptation Syndrome

Observed especially after late-pregnancy exposure to SSRIs or benzodiazepines, symptoms include:

- Tremors
- Feeding difficulties
- Respiratory distress
- Hypoglycemia

Most cases are **self-limiting** within 2–5 days.

Clinical Algorithm

Stepwise Perinatal Management:

1. **Preconception counseling:** Optimize regimen; switch teratogenic drugs if needed.
2. **1st trimester:** Minimize exposures; high folate supplementation.
3. **2nd trimester:** Screen for GDM, fetal anomalies; maintain psychiatric stability.
4. **3rd trimester:** Prepare for neonatal adaptation monitoring; ECT if needed.
5. **Postpartum:** High relapse risk—ensure close psychiatric follow-up and lactation-safe therapy.

Breastfeeding and Psychotropics

Preferred medications: Sertraline, paroxetine, quetiapine, and olanzapine.

Avoid: Clozapine (risk of agranulocytosis), valproate (hepatotoxicity), and high-dose benzodiazepines.

Monitor infants for sedation, feeding issues, and developmental milestones.

Practical Summary Charts

Table: Psychotropic Drug Safety in Pregnancy & Lactation (Quick Reference)

Drug Class	Preferred Drugs	Avoid in Pregnancy	Caution in Lactation
SSRIs	Sertraline, citalopram	Paroxetine	Fluoxetine
Mood Stabilizers	Lamotrigine	Valproate, Carbamazepine	Lithium
Antipsychotics	Quetiapine, Olanzapine	Clozapine	Risperidone

Conclusion

Perinatal psychopharmacology requires thoughtful integration of psychiatric necessity and reproductive safety. Avoiding psychotropic medication out of fear may expose mother and fetus to greater risk. Current evidence supports the cautious, judicious use of specific antidepressants, mood stabilizers, and antipsychotics with appropriate monitoring. Collaborative care involving psychiatry, obstetrics, and pediatrics remains the cornerstone of optimizing maternal and neonatal outcomes.

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03 Post-Partum Depression: Pharmacologic, Nutritional, and Device-Based Therapies

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Introduction

Post-partum depression (PPD) is a debilitating mental health disorder that affects approximately 10–20% of women following childbirth. Distinct from the transient "baby blues," which typically resolve within two weeks, PPD can persist for months and severely disrupt maternal functioning, infant bonding, and overall family dynamics. The consequences extend beyond emotional distress, often impacting infant development, marital relationships, and maternal role performance. In the Indian context, cultural stigma, lack of mental health resources, and under diagnosis further compound the burden.

While psychotherapy, especially cognitive behavioural therapy (CBT), is an essential part of PPD management, a growing body of evidence supports a multimodal treatment approach. This chapter reviews key therapeutic options including pharmacologic agents such as selective serotonin reuptake inhibitors (SSRIs) and brexanolone, nutritional strategies like omega-3 fatty acid supplementation, and emerging neurostimulation devices including transcranial magnetic stimulation (TMS) and transcranial direct current stimulation (tDCS).

Pharmacologic Therapies

SSRIs: First-Line Pharmacologic Treatment

Selective serotonin reuptake inhibitors (SSRIs) are the mainstay of pharmacologic treatment for moderate to severe PPD. SSRIs enhance synaptic serotonin availability, aiding in mood stabilization. Common SSRIs used include sertraline, fluoxetine, citalopram, and escitalopram.

In a 2023 comparative analysis, Feldman et al. found SSRIs to be as effective as serotonin-norepinephrine reuptake inhibitors (SNRIs) but better tolerated in the postpartum population. Among SSRIs, sertraline is preferred in breastfeeding women due to its minimal excretion in breast milk and favourable safety profile. Clinical response is usually observed within 2–4 weeks, and therapy should be continued for at least 6–12 months to prevent relapse.

In India, limited awareness and societal stigma may delay initiation of pharmacotherapy. Thus, it is vital to include the family in psychoeducation, advocate shared decision-making, and monitor adherence through follow-up.

Brexanolone: A Targeted, Rapid-Acting Option

Brexanolone, an intravenous formulation of the neurosteroid allopregnanolone, represents a novel, targeted therapy for PPD. Acting as a positive allosteric modulator of GABA-A receptors, brexanolone helps restore neurohormonal balance disrupted after childbirth. It is the first and only FDA-approved medication specifically for PPD.

In a pivotal double-blind trial, Meltzer-Brody et al. (Lancet, 2018) reported significant improvements in Hamilton Depression Rating Scale (HAM-D) scores within 24 hours of brexanolone infusion, with benefits lasting up to 30 days.
However, brexanolone therapy presents challenges: it requires a continuous 60-hour infusion under inpatient monitoring due to risks of sedation and loss of consciousness, and its cost and infrastructure requirements limit its availability in India. Nevertheless, in tertiary care centers or for women with severe, treatment-resistant PPD, brexanolone may serve as a life-changing option.

Nutritional Therapies

Omega-3 Fatty Acids: A Safe and Accessible Adjunct

The role of nutrition in mental health, particularly omega-3 polyunsaturated fatty acids (PUFAs), is gaining increasing attention. Eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) influence neuroplasticity, inflammation, and neurotransmission.

A meta-analysis by Shorey et al. (Nutr Rev, 2019) confirmed that omega-3 supplementation reduces depressive symptoms in post-partum women, particularly in those with low baseline levels. Higher EPA:DHA ratios were more efficacious.
In the Indian dietary context, where vegetarianism is common and seafood consumption low, omega-3 deficiency is prevalent. Supplementation is inexpensive, safe during lactation, and compatible with pharmacotherapy, making it an attractive option in public health settings. Nutritional counseling should be part of routine antenatal and postnatal care.

Device-Based Therapies

Transcranial Magnetic Stimulation (TMS): Non-Invasive Neuromodulation

TMS is an FDA-approved therapy for major depression and is increasingly explored in the context of PPD. It delivers focused magnetic pulses to the left dorsolateral prefrontal cortex, an area implicated in mood regulation.

Wilkinson and Sanacora (Clin Psychopharmacol Neurosci, 2019) documented significant symptom reduction in PPD patients treated with TMS over 4–6 weeks. TMS is non-invasive, does not impair cognition, and is compatible with breastfeeding.

In India, its usage is limited to urban mental health centers due to high costs and need for specialized equipment. However, it is promising for women seeking non-pharmacologic interventions or those intolerant to medication.

Transcranial Direct Current Stimulation (tDCS): Emerging, Affordable Innovation

tDCS uses low-intensity electrical currents to alter cortical excitability. While its antidepressant efficacy is still being evaluated, preliminary trials suggest benefits in PPD when combined with counseling or CBT.
Unlike TMS, tDCS devices are portable, silent, and potentially suitable for home-based use. Given India's resource limitations and rural population, tDCS holds future promise, particularly in community mental health programs.

Integrated and Personalized Care Models

PPD is a heterogeneous condition influenced by hormonal changes, psychological stressors, social support systems, and prior psychiatric history. Therefore, treatment must be personalized. The American College of Obstetricians and Gynecologists (ACOG, 2021) recommends a stepped-care model: initiating with psychotherapy for mild cases, followed by pharmacologic or device-based interventions for more severe forms.

In the Indian setting, family involvement, community health worker training, and antenatal mental health screening are key to early identification and intervention. Culturally tailored psychoeducation can bridge gaps in care and reduce stigma.

Conclusion

Post-partum depression remains a critical maternal mental health issue. SSRIs continue to be the cornerstone pharmacologic therapy, while brexanolone introduces a rapid-acting alternative for select cases. Omega-3 fatty acids offer a safe and cost-effective adjunct, particularly relevant in nutritionally vulnerable populations. Device-based therapies like TMS and tDCS expand treatment options, especially for women preferring non-drug approaches.

A multidisciplinary, empathetic approach that integrates pharmacologic, nutritional, and neuromodulatory strategies—adapted to the Indian context—can significantly enhance maternal recovery and long-term family well-being.

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04 Nutritional Psychiatry for Women: Micronutrients, Gut–Brain Axis & Probiotic "Medical Foods"

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1 Introduction

Nutritional psychiatry is an emerging field examining the relationship between diet and mental health. Central to this is the gut–brain axis, a bi-directional communication system between the gut microbiota and the central nervous system. In addition to macronutrients, micronutrients and probiotic-based "medical foods" have been found to influence neuropsychiatric outcomes, opening up novel non-pharmacological interventions for conditions such as depression, anxiety, and cognitive decline. Mental health disorders, including depression, anxiety, and cognitive decline, are global public health concerns with increasing prevalence [1].

This article explores three key components of nutritional psychiatry: micronutrients, the gut-brain axis, and probiotic "medical foods", and their potential roles in managing and preventing psychiatric disorders.

2 Micronutrients and Brain Health

Micronutrients—vitamins and minerals required in small amounts—are essential for the synthesis of neurotransmitters, mitochondrial function, and the regulation of inflammation and oxidative stress, all critical for optimal mental functioning.

3 The Gut–Brain Axis: A Bi-Directional Pathway

The gut–brain axis connects the gastrointestinal tract and the brain through neural, hormonal, immune, and microbial signalling pathways.
Neural communication. The vagus nerve plays a significant role, with strains such as Lactobacillus rhamnosus modulating GABA receptor expression and reducing stress responses .

1. Microbiota and Neurotransmitter Production

The gut microbiota can synthesize neurotransmitters such as GABA, serotonin, dopamine, and acetylcholine. For instance, certain Lactobacillus and Bifidobacterium strains produce GABA, which exerts calming effects on the central nervous system .

2. Microbiome and Immune Modulation

Gut dysbiosis can increase intestinal permeability (i.e., "leaky gut"), allowing pro-inflammatory cytokines and microbial metabolites to cross the blood-brain barrier and activate neuroinflammation, a known contributor to depression and anxiety [3].
Studies have shown that patients with major depressive disorder often exhibit altered gut microbiota composition compared to healthy controls .

The gut microbiome also influences the hypothalamic-pituitary-adrenal (HPA) axis, affecting stress hormone levels and emotional responses [4].

4 Diet Patterns & Mental Well-Being

Epidemiological data strongly link dietary habits with psychological health. Mediterranean Diet. Rich in fruits, vegetables, fish, legumes, and olive oil, it has been shown to significantly reduce depression symptoms in multiple randomized controlled trials .
Processed Foods. Diets high in sugar, refined carbs, and trans fats increase risks of anxiety (+50%) and depression (+20%) .
GAIA Study. A nutrient-dense, plant-forward diet reduced burnout and improved sleep, mood, and resilience among healthcare workers .

Such outcomes are likely mediated by anti-inflammatory and antioxidant dietary components[5].

5 Probiotics & Psychobiotics: Microbes for Mood

Psychobiotics refer to probiotics that positively impact mental health through microbiota–CNS communication[6].
•Clinical trials suggest improvements in depression scores with strains such as L. helveticus and B. longum .
•Functional MRI in humans revealed altered activity in brain areas related to emotion after probiotic supplementation [5].
Animal studies using germ-free mice showed normalization of stress responses after microbial colonization .

Food vs. Supplements. Fermented foods (yogurt, kimchi, kombucha) improve microbial diversity, but clinical-grade psychobiotics allow standardized dosing for clinical use .

6 Micronutrients + Probiotic Synergy

Micronutrients and probiotics can act synergistically:
A clinical trial combining magnesium and L. rhamnosus showed significant reductions in stress and anxiety .

Micronutrient intake influences bacterial diversity: magnesium and thiamine intake altered the abundance of Coprococcus, a beneficial genus .

7 Medical Foods: Probiotic-Enriched Products

Medical foods are FDA-regulated dietary products intended for disease management under medical supervision.

Promising formulations include:

- Psychobiotic yogurts with clinically verified strains.
- Synbiotic bars combining probiotics and prebiotic fibers.
- Fortified fermented foods containing B-vitamins, folate, and omega-3s for cognitive support.

These offer a practical route to deliver gut-brain-active compounds, though efficacy and regulation require refinement.

8 Clinical Evidence & Limitations

Despite encouraging data:

- Many RCTs have small samples and heterogeneity in strains/doses .
- Gut microbiome variability complicates reproducibility.
- There is a lack of standardized diagnostic protocols for "nutritional psychiatric disorders."

Meta-analyses confirm benefits of probiotics in mood disorders, but larger, long-term studies are essential [7].

9 Integrative Clinical Approach

Recommendations for clinical use:

1. Nutritional status assessment: test for vitamin and mineral deficiencies.
2. Personalized diet: focus on anti-inflammatory, Mediterranean-based eating patterns.
3. Probiotic administration: select evidence-supported psychobiotic strains.
4. Micronutrient supplementation: tailored to patient needs.
5. Medical food incorporation: for long-term compliance.
6. Lifestyle support: include exercise, sleep hygiene, and mindfulness.

Monitoring biochemical markers and psychiatric symptoms is essential for optimal treatment outcomes[8].

10 Future Directions

Future research should:

- Develop standardized psychobiotic medical food formulations.
- Use microbiome sequencing to personalize treatment.
- Include long-term, large-sample clinical trials.
- Explore AI-based tools to guide nutritional psychiatry.

Nutritional psychiatry may soon be integrated into mainstream psychiatric care via evidence-based, diet-based protocols.

11 Conclusion

Nutritional psychiatry represents a paradigm shift in the understanding and treatment of mental health conditions. From the essential roles of micronutrients in neurotransmitter synthesis to the intricate interplay between the gut-brain axis and mental function, the science is clear: what we eat profoundly impacts how we feel and think.

The integration of probiotic medical foods into psychiatric care offers a novel, non-invasive adjunct to existing treatments. However, more rigorous and large-scale studies are needed to determine optimal formulations, long-term safety, and efficacy in diverse populations.

As we move toward a more holistic and personalized approach to mental health, dietary interventions should be viewed not as alternative, but complementary tools in psychiatric care—empowering both clinicians and patients in achieving lasting emotional and cognitive wellness.

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05

Premenstrual Dysphoric Disorder: Lifestyle, SSRIs, LNG-IUS and New Drug Options

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INTRODUCTION

The premenstrual syndrome (PMS) and the more severe variant of premenstrual dysphoric disorder (PMDD), also called late luteal phase dysphoric disorder are characterized by the presence of physical and/or behavioral symptoms that occur repetitively in the second half of the menstrual cycle and often the first few days of menses. The severity of PMS or PMDD symptoms lead to interference with some aspects of the female's life, including social relations, work in or outside the home, etc. The most common physical manifestation is abdominal bloating . Breast tenderness and headaches are also common The emotional symptoms lead to greater impairment than do physical symptoms .

It should be differentiated from PMS - symptoms that are most commonly reported are abdominal bloating, cramps, irritability, mastalgia, and joint and back pains.The prevalence of PMDD was 2.9 percent among Black females versus 4.4 percent among White females.

Some studies suggest a possible association with the estrogen receptor alpha (ESR1) gene . In one report, cells from females with and without PMDD showed different response patterns to components of the ESC/E(Z) (Extra Sex Combs/Enhancer of Zeste) complex that includes the ESR1 gene . Other possible risk factors for the development of PMDD include lower education and cigarette smoking , a history of traumatic events or anxiety disorder, and higher "daily hassle scores".

PATHOGENESIS

Deficiencies in progesterone, progesterone metabolites (some of which have anxiolytic properties), and the progesterone receptor have also been proposed as possible mediators of PMS/PMDD• In the normal menstrual cycle, cyclic fluctuations in luteal phase estrogen and progesterone concentrations cause marked changes in neurotransmitters, most notably, the serotonin system. Females with PMS/PMDD have normal concentrations of serum estrogen and progesterone, but they appear to have an abnormal neurotransmitter response (in particular, serotonin) to luteal phase hormonal changes. Among the neurotransmitters, low serotonin appears to play the most important role in the etiology of PMS/PMDD. Limited data suggest that high intake of vitamin B6 (from the diet, but not from supplements) is associated with a lower risk of PMS/PMDD. A number of vitamins and dietary supplements, including vitamin B6, vitamin E, vitex agnus castus, calcium, and magnesium, have been studied as therapeutic agents for PMS; however, evidence that any of these is more effective than placebo, which has a 30 percent response rate, is inconsistent.

Other risk factors for PMDD include:

- Anxiety or depression
- PMS
- A family history of PMS, PMDD, or mood disorders
- A history of trauma, abuse, or other stressful life events
- Obesity

EVALUATION

General approach — The assessment of patients with possible premenstrual syndrome (PMS) or premenstrual dysphoric disorder (PMDD) should include the following:

(a) Menstrual history – A detailed menstrual history, because the relationship between symptoms and cycle phase must be confirmed. If the patient's cycles are regular (24- to 38-day intermenstrual interval), detailed information about her symptoms should then be obtained (type, pattern of onset and offset, severity, presence of functional impairment, and confirmation that symptoms are recurrent. Women with PMS/PMDD may also experience irregular menstrual cycles (38 days) particularly during the menopausal transition. In this setting, symptoms may be more difficult to track because of cycle variability.

(b) Biochemical testing is not required in women with irregular cycles during the transition but should be performed in younger women to determine the etiology of the irregular menstrual cycles. Measure serum human chorionic gonadotropin (hCG), thyroid-stimulating hormone (TSH), prolactin, and follicle-stimulating hormone (FSH).

(c)Medications – Evaluation of medications, including hormonal treatment – Women taking oral contraceptives (OCs) should be asked if their premenstrual symptoms were present before the OC was started, or if the symptoms first began after initiation of the OC (eg, exogenous hormone-induced rather than true PMS or PMDD). Of note, OCs are sometimes used to treat premenstrual disorders, although data on their efficacy are conflicting.

(d)Rule out endocrine disorders – Consideration of endocrine disorders that can cause similar symptoms, such as hyper- or hypothyroidism and cortisol excess (eg, if symptoms are severe and refractory to standard treatment and/or are present throughout the entire menstrual cycle).

(f)Prospective monitoring – If the patient's symptom history is consistent with PMS/PMDD and there is no evidence of other medical disorders, the patient should be asked to record symptoms prospectively for two months to confirm the diagnosis.

(g)Rule out underlying mood disorders – The existence of a chronic, mild mood disorder such as dysthymic disorder or major depressive disorder should be ruled out. Prospective symptom charting helps to determine if symptoms are present continuously or only during the premenstrual phase of the cycle.

(h)Prospective monitoring with self-rating scale — Because of the similarity of PMS and PMDD symptoms to other disorders, a valid and reliable prospective symptom inventory is required to confirm the diagnosis. Several tools are available, but the Daily Record of Severity of Problems (DRSP) form, which has been validated as a prospectively self-administered questionnaire, is the most commonly used The DRSP consists of 17 common PMS symptoms, including 11 symptoms from the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) PMDD diagnostic criteria. Patients rate each symptom on a six-point scale, from 1 (none at all) to 6 (extreme).

DIAGNOSTIC CRITERIA

Once the detailed menstrual and symptom history have been taken, the prospective monitoring is complete, examination and laboratory data are completed (and normal), we make the diagnosis of premenstrual syndrome (PMS) and premenstrual dysphoric disorder (PMDD) using the following criteria :

PMS — if a woman has: One to four symptoms that may be physical, behavioral, or affective/psychological in nature that interfere with functioning.

If, on the other hand, a woman has ≥5 symptoms and one of them is an "affective symptom" (eg, mood swings, anger, irritability, sense of hopelessness or tension, anxiety or feeling on edge), it is more accurate to diagnose her with PMDD rather than PMS.

We currently use the APA DSM-5 system, which provides PMDD criteria. These criteria require:

- Prospective documentation of physical and behavioral symptoms (using diaries) being present for most of the preceding year ,
- Clinical manifestations and diagnosis of premenstrual syndrome and premenstrual dysphoric disorder - Five or more symptoms must have been present during the week prior to menses, resolving within a few days after menses starts. These criteria also specify that PMDD may be superimposed on other psychiatric disorders, provided it is not merely an exacerbation of those disorders.

DSM-5 criteria — One or more of the following symptoms must be present: -Mood swings, sudden sadness, increased sensitivity to rejection Anger, irritability Sense of hopelessness, depressed mood, self-critical thoughts Tension, anxiety, feeling on edge.

One or more of the following symptoms must be present to reach a total of five symptoms overall: Difficulty concentrating, Change in appetite, food cravings, overeating ,Diminished interest in usual activities, Easy fatigability, decreased energy. Feeling overwhelmed or out of control ,Breast tenderness, bloating, weight gain, or joint/muscles aches ,Sleeping too much or not sleeping enough.

Among these symptoms, premenstrual irritability is the most common symptom. Symptoms must have been present in most menstrual cycles that occurred the previous year, and the symptoms must be associated with significant distress or interference with usual activities (eg, work, school, social life). These criteria also specify that PMDD may be superimposed on other psychiatric disorders, provided it is not merely an exacerbation of those disorders.

Women without menstruation — The diagnosis of premenstrual disorders is more challenging, but still possible, in women with normal ovarian function and ovulation in the absence of menstruation. These women experience the typical cyclic symptoms of PMS/PMDD but cannot use menses as a reference point for their symptoms. Examples include Women who have undergone hysterectomy (with ovarian conservation) or an endometrial ablation, which results in amenorrhea in approximately 35 to 40 percent,Women using a levonorgestrel intrauterine device (for contraception or heavy menstrual bleeding). Amenorrhea typically develops after six months of use, but ovulation persists in approximately 75 percent of women. In this setting, prospective charting is essential to document a cyclic pattern of symptoms that recur approximately every 28 to 35 days, the normal range for intermenstrual intervals.

DIFFERENTIAL DIAGNOSIS

Premenstrual disorders should always be differentiated from premenstrual exacerbation of an underlying major psychiatric disorder; the menopausal transition; thyroid disorders (hyper- or hypothyroidism); and mood disorders, such as major depressive disorder, minor depressive disorder, or dysthymic disorder.

Mood and anxiety disorders — There is substantial overlap between premenstrual dysphoric disorder (PMDD) and psychiatric disorders, particularly mood and anxiety disorders. In some instances, women with premenstrual disorders may have had an episode of a mood or anxiety disorder in the past that has resolved. Assigning a diagnosis of premenstrual syndrome (PMS)/PMDD is not difficult in this group but often requires that a patient keep a daily calendar that demonstrates luteal phase onset of symptoms with resolution of symptoms in the follicular phase of the cycle. However, women who present with the complaint of PMS and experience significant symptoms in both the follicular and luteal phase are likely to have a mood disorder such as major, minor, or dysthymic disorder rather than PMDD . While symptoms may worsen during the luteal phase, treatment should be geared toward ameliorating symptoms of the ongoing mood or anxiety disorder, although in practice, both may be treated simultaneously.

Menopausal transition — New mood and/or anxiety symptoms in a woman in her 40s or 50s are more likely to be due to the menopausal transition than to new-onset PMS. As noted above, PMS symptoms typically start at a younger age, most often by the early 20s. Mood disorders are more common during the perimenopausal years than during the pre- or postmenopausal years. The risk for new-onset depression is approximately 30 percent; for women with a prior history of depression, the risk is 60 percent. But unlike PMS symptoms, which occur during ovulatory cycles, menopausal mood symptoms typically begin when menstrual cycles become irregular/anovulatory. Documentation of an elevated serum follicle-stimulating hormone (FSH) is not necessary to confirm the diagnosis.

Thyroid disorders — Both hyper- and hypothyroidism are common in women. Hyperthyroidism, in particular, may present with mood symptoms. Both disorders can be distinguished from PMS based upon other typical features of thyroid disease on history, examination, and by a serum thyroid-stimulating hormone (TSH) that is either above or below the normal range (hypo- and hyperthyroidism, respectively).

Substance use disorders — It has been suggested that women with PMS consume more alcohol than controls, independent of cycle phase, and that women with a family history of alcohol use disorders experience more anxiety premenstrually. Others — A variety of medical disorders (eg, migraine; chronic fatigue syndrome [CFS] also known as myalgic encephalomyelitis/chronic fatigue syndrome [ME/CFS]; irritable bowel syndrome) are exacerbated just prior to or during menses. However, the symptoms expressed are not those typical of PMS, and the timing is not usually confined to the luteal phase

Management

Mild symptoms – For women with mild premenstrual symptoms that do not cause distress or socioeconomic dysfunction, we initiate targeted behavioral therapy and/or lifestyle measures such as regular exercise and stress reduction .A course of cognitive behavioral therapy (CBT) may be beneficial for some women.

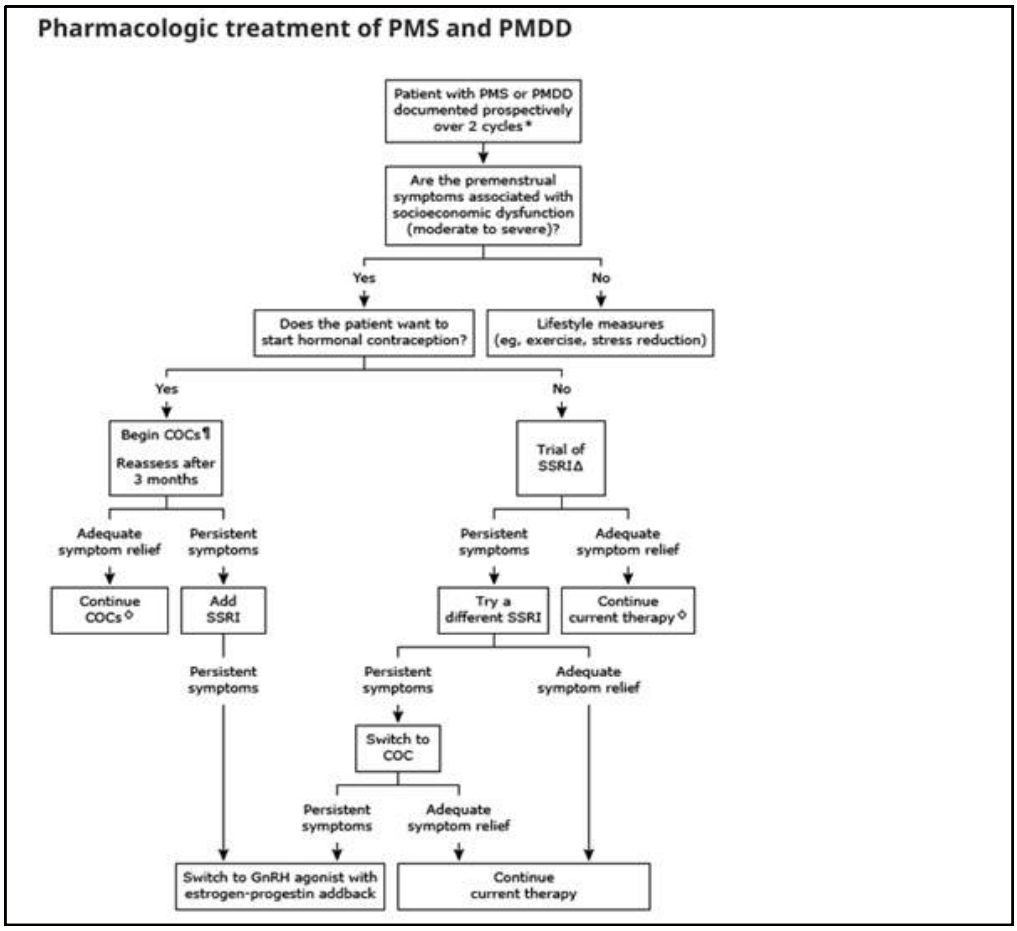
Moderate to severe symptoms – We suggest selective serotonin reuptake inhibitors (SSRIs) as our first-line options for women with moderate to severe premenstrual symptoms, especially for those who experience depressive and anxious symptoms . SSRIs can be administered as a continuous daily therapy, luteal phase-only treatment (starting on cycle day 14), or symptom-onset therapy, but one must be sure that the patient is asymptomatic during the follicular phase to avoid undertreatment . If contraception is the patient's top priority (in addition to treating the premenstrual symptoms), many women prefer to try a combined estrogen-progestin oral contraceptive (COC) rather than an SSRI as first-line therapy . Use a COC containing drospirenone with a four-day pill-free interval as our first line pill. If symptom relief with a monophasic COC with a shortened pill-free interval is inadequate, an SSRI can be added. Again, amelioration of depressive and anxious symptoms may be inadequate with COC only treatment

Refractory symptoms – For women who have not responded to or cannot tolerate SSRIs or COCs and continue to experience severe symptoms, we typically initiate a trial of gonadotropin-releasing hormone (GnRH) agonist therapy with estrogen-progestin add-back .

Medical therapy of PMDD is usually successful. As a result, surgery is considered only as a last resort (eg, in cases with severe, disabling symptoms that have responded to GnRH agonist and hormone add-back therapy for at least six months

Premenstrual dysphoric disorder (PMDD): Suggested daily dosing for continuous and intermittent regimens

SSRI	Starting dose (half suggested effective dose)	Usual effective doses	Maximum after several cycles if further titratior is needed for symptom control
Citalopram	10 mg	20 to 30 mg	Continuous: 40 mg Intermittent: 30 mg
Escitalopram	5 to 10 mg	10 to 20 mg	Continuous: 20 mg Intermittent: 20 mg
Fluoxetine	10 mg	20 mg	Continuous: 30 mg Luteal phase: 30 mg Symptom onset: 20 mg
Paroxetine (IR)	10 mg	20 to 30 mg	Continuous: 40 mg Intermittent: 30 mg
Sertraline	25 mg	50 to 150 mg	Continuous: 200 mg Intermittent: 150 mg



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06

Infertility Treatment & Mental Health: Counselling Protocols And Adjuvant Pharmacology

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Background

The urge to reproduce is deeply ingrained in humans, acting as a powerful biological drive to ensure the continuation of our species. Fertility means ability to conceive and reproduce. Infertility is defined as inability to conceive even after 12 months of regular unprotected sexual intercourse in couples age < 35 years and 6 months for couples age > 35 years. Overall prevalence of infertility in India is reported between 3.9% and 16.8%, as per WHO estimates[1]. Infertility is a clinical manifestation of wide range of underlying disorders like PCOS, endometriosis, Pelvic inflammatory diseases, tuberculosis, genetic disease, endocrinopathy or idiopathic in about 15-20%.

Mental health and infertility

Almost 7 decades back, Hans Hugo Selye first described relationship between mental disorders and human physiology[2]. It is now known and recognised universally that not only depression, stress, anxiety affect infertile couples; they also are worsened by infertility and further perpetuate infertility by increasing stressors in the body. Hossein Fallahzadeh et al in their meta-analysis concluded that depression and anxiety scores in infertile couples were higher than fertile couples[3]. Numerous studies have shown poorer mental health in infertile couples. 39.4% patients reported to experience anxiety, salivary cortisol levels also reported to be higher in infertile couples undergoing IVF[2]. Furthermore depression, anxiety, stress and antidepressants used in infertile couple may have an impact on hormonal balance, ovulation, miscarriages and sperm parameters and should be taken into account.

Sleep disorders and infertility

Sleep hygiene plays important role in circadian rhythm, hypothalamo- pituitary- adrenal axis and its disturbance contributes to inflammatory response, altered melatonin levels and malfunctioning HPO axis. Sleep deprivation has been associated with increased ACTH and cortisol levels, increased TSH levels, abnormal FSH/ LH levels and increased concentrations of inflammatory mediators like tumor necrosis factor, interleukin 6 and C reactive protein. Thus stable circadian rhythm and cyclic melatonin availability play important role in reproductive physiology.

Eating disorders and infertility

Various eating disorders affect reproductive physiology like anorexia nervosa, bulimia nervosa and binge eating disorders. Anorexia nervosa is marked by low calorie intake, low BMI and often amenorrhea, because of decreased leptin and GnRH disruption[4]. In contrast 76% of patients with bulimia nervosa (marked by episodes of starving and binge eating) are shown to have PCOS[5].

Counselling protocols in infertility

Infertility consultation differs from regular OBGY consultation in many ways as infertile couples are dealing with unfulfilled wish/ goal, fertility treatment involves repeated interventions often involving and affecting intimate lives[6].

Infertility counselling

- Aims- explore, understand and resolve issues arising from infertility
- Tasks-
    * information gathering and analysis to help reach a decision
    * implications and decision-making counselling,
    * support counselling- mainly for emotional support
    * therapeutic counselling

- reflection of individual problems and (family) history,
- the acceptance of the situation,
- the meaning and impact of infertility, including grief work,
- work on alternative life and self-concepts for the future,
- the development of coping strategies and strategies to minimise distress,
- problem and conflict solving, and/or
- specific issues such as sexual, marital and other interpersonal problems

* as per ART act 2021, counselling is important part of infertility services for level 2 ART clinics. Some patients may be in more need of counselling like previous failed treatment, need for third party reproduction, genetic counselling, great distress.

Mindfulness apps and therapies in infertility

All couples may not be very receptive to psychosocial support and or therapy because of myths and taboos surrounding it. There is a definite place of mindfulness apps and therapies in addressing stress and anxiety of infertile couples. In past, mindfulness based interventions have been used successfully in many chronic health problems like chronic pain, anxiety, depression etc. few key features of Mindfulness Based Program for Infertility (MBPI) include[7]

- achieving acceptance of present
- cognitive defusion or cognitive decentering
- attitudes of kindness, curiosity
- ability to recognize our own experience as part of larger human experience

MBPI maybe an effective intervention in women with infertility, helping with emotion regulation process, mindfulness skills, way patient sees his/ her ability to cope with demands of infertility and its treatment. Few points to be kept in mind before ascertaining appropriateness for MBI are[8]

1. who can consider- infertile patient with emotional distress related to any medical condition/type of infertility. He/ she must understand that it is not a "panacea." Clients should have the psychological endurance to undergo the intensive 8 weeks process.
2. Where it can be given- during their active IUI/IVF or in "waiting periods" of these treatments.
3. What it involves- Awareness and informational provision on fertility disorders and their medical management, Coping with the psychosocial aspect of infertility and emotionally critical periods, Life style improvement or fertility enhancement.
4. For how long- one session per week with total duration 8-12 weeks.
5. Effectiveness of Computer-aided, internet-based, and smartphone applications of MBIs is not well studied in infertile couples.

Use and impact of medications for infertility related stress

Management of infertility related stress may involve prescription of anti-depressants and other medicines. However a lot of these medicines may have an impact on oocyte/ embryo quality as well. Juliana Pedro et al in their study reported that Infertility-related stress in the personal and marital domains and general physical stress reactions were significant predictors of a first redeemed prescription of antidepressants after ART treatment[9]. High personal stress (adj OR = 2.14, 95% CI 1.46-3.13) and high marital stress (adj OR = 1.80, 95% CI 1.23-2.64) were significantly associated with the later prescription of antidepressants. Social stress was not significantly associated with the future redeemed prescription of antidepressants (adj OR = 1.10, 95% CI 0.76-1.61).

A systematic review and meta-analysis by Jiarong Xu et al has reported adverse effect on sperm parameters with 3 or more months of SSRI use, reduced normal sperm morphology (95% CI [−16.29, −3.77], p = 0.002), sperm concentration (95%CI [−43.88, −4.18], p = 0.02), sperm motility (95%CI [−23.46, −0.47], p = 0.04) and sperm DNA fragmentation index (DFI) (95% CI [6.66,21.93], p = 0.0002)[10]. There was no significant difference in LBR and PR after adjusting for maternal age, parity, ICSI use, and stimulation protocol. However, a significant increase in cycle cancellations due to poor response was seen in the patients taking SSRIs[11].

Benzodiazepines, such as alprazolam, clobazam are often used for management of various anxiety/ sleep disorders. However they have an adverse impact on fertility outcomes. Benzodiazepine use in pregnancy increases the risk of miscarriage, adverse birth outcomes, increase risk of ectopic pregnancy and adverse child development outcomes[12].

Conclusion

Infertility associated stress and impact of infertility on mental health has not been given adequate consideration. To optimise outcomes and long term mental health, infertile couples should be screened for mental health. Because of potential risks associated with use of conventional medcines for stress management on fertility outcomes, more attention should be paid to non pharmacological methods like
Lifestyle Changes: Improving sleep, diet, and social connections
Exercise
Cognitive Behavioural Therapy (CBT)
Meditation and Relaxation Techniques
Selective Serotonin Reuptake Inhibitors (SSRIs) and Serotonin-Norepinephrine Reuptake Inhibitors (SNRIs): These antidepressants are often used for anxiety disorders.
Mindfulness based programs/ apps

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07

Adolescent Mental Health: Eating Disorders, Body Image & Social-Media-Driven Anxiety

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Introduction :

What is Mental health ?

Mental health is a state of mental well-being that enables people to cope with stresses of life, realize their abilities, learn well and work well, to contribute to their community. It is an integral component of health and well-being and it is crucial to personal, community and socio-economic development and not mere absence of mental disorders.

Mental health disorders in adolescence are a significant problem ,relatively common and amenable to treatment or intervention .Adolescence is a crucial period for developing social and emotional habits important for mental wellbeing.

Adolescents with mental health conditions are particularly vulnerable to social exclusion, discrimination, stigma (affecting readiness to seek help), educational difficulties, risk-taking behaviours, physical ill-health and human rights violations

Prevalence and Impact:

Mental health conditions are a significant concern for adolescents, with 15% of the global burden of disease in this age group attributed to them.

Anxiety, depression, and behavioral disorders are among the leading causes of illness and disability in adolescents, **according to the World Health Organization (WHO)**. Suicide is a leading cause of death among adolescents and young adults. Globally, it is estimated that one in seven (14%) of 10-19 year olds experience mental health conditions. Yet these remain largely unrecognized and untreated. At least 1/5 youths aged 9-17 years has a diagnosable mental health disorder.1/10has a significant disorder that causes significant impairment, but only one third of these youth receive necessary treatment.

Determinants of Mental health:-

Multiple factors affect mental health. The more risk factors adolescents are exposed to, the greater the potential impact on their mental health.

Key factors of Mental Health are

Emotional well-being:

This refers to how individuals experience and manage their emotions, including positive emotions like joy and happiness, and negative emotions like sadness and anger.

Psychological well-being This involves a positive sense of self, including self-esteem, self-awareness, and the ability to make sound judgments.

Social well-being:
This encompasses healthy relationships with others, feeling connected to one's community, and contributing to society. Factors influencing mental health:

Individual factors:
Personality traits, coping mechanisms, and past experiences all play a role.

Social and environmental factors:
Factors like poverty, violence, discrimination, and lack of access to resources can negatively impact mental health.

Biological factors:
Genetics and brain chemistry can influence an individual's susceptibility to mental health disorders

The most common mental illnesses in adolescents are anxiety, mood, attention, and behaviour disorders.

Emotional Disorders:-
Emotional disorders are common among adolescents. Anxiety disorders (which may involve panic or excessive worry) are the most prevalent in this age group and are more common among older than among younger adolescents. It is estimated that 4.4% of 10–14-year-olds and 5.5% of 15–19-year-olds experience an anxiety disorder . Depression is estimated to occur among 1.4% of adolescents aged 10–14 years, and 3.5% of 15–19-year-olds.

Behavioural Disorders :-
These are more common among younger adolescents than older. Attention Deficit Hyperactivity disorder (ADHD),characterized by difficulty paying attention and/or excessive activity and acting without regard to consequences, occurs among 2.9%of 10-14 year old and 2.2% of 15-19 year olds.

Eating disorders in Adolescents
Eating disorders are complex illnesses that affect adolescents with increasing frequency. They rank as the third most common chronic illness in adolescent females
These include anorexia nervosa, bulimia nervosa, avoidant/restrictive food intake disorder, and binge eating disorder Both anorexia nervosa and bulimia nervosa can be associated with serious biological, psychological and sociological morbidity, and significant mortality.

Anorexia nervosa,- often called anorexia, is an eating disorder in which people maintain a weight that is below average for their age and height. Children or adolescents with anorexia have The condition usually develops during adolescence and is diagnosed mostly in girls, although 10 percent of those diagnosed with anorexia are boys. People with anorexia commonly have other mental health problems, such as **mood disorders** or **anxiety disorders**. **Symptoms** include a bluish discoloration of the fingers due to a lack of oxygen; hair that thins, breaks, or falls out; soft, downy hair covering the body; fatigue; insomnia; dizziness or fainting; and the absence of menstruation in teenage girls.

Bulimia Nervosa:- Bulimia nervosa, or bulimia, is a type of eating disorder in which a person engages in episodes of bingeing—during which he or she eats a large amount of food—and then purges, or tries to get rid of the extra calories. Examples of purging include self-induced vomiting or excessive exercise, such as running on a treadmill for hours.

The condition often begins in the late teens or early adulthood and is diagnosed mostly in women. People with bulimia may have other mental health issues, including depression, anxiety, drug or alcohol abuse, and self-injurious behaviours.

Symptoms may include discolored or stained teeth, calluses on the backs of the hands or knuckles from self-induced vomiting, swelling in the cheeks or jaw area, frequent weight fluctuations, and an irregular menstrual cycle.

1. Avoidant/Restrictive Food Intake Disorder:-In avoidant/restrictive food intake disorder, a person is unable to or refuses to eat certain foods based on texture, color, taste, temperature, or aroma. The condition can lead to weight loss, inadequate growth, nutritional deficiencies, and impaired psychosocial functioning, such as an inability to eat with others.

Unlike anorexia nervosa, there are not weight or shape concerns or intentional efforts to lose weight.

Binge Eating Disorder:-

People with binge eating disorder eat unusually large amounts of food often and in secret but do not attempt to get rid of calories once the food is consumed. People with the condition may be embarrassed or feel guilty about binge eating, but they feel such a compulsion that they cannot stop. These people can be of average weight, overweight, or obese. They may also have other mental health disorders, such as depression. Many binge eaters have trouble coping with anger, sadness, boredom, worry, and stress. Binge eating disorder often has no physical symptoms, but it has psychological

symptoms that may or may not be apparent to others, such as depression, anxiety, or shame or guilt over the amount of food eaten. Frequent dieting without weight loss is another symptom.

Other Eating Disorders :- Not every child or adolescent fits into the diagnostic categories above, but they can still have clinically significant problems with eating. Examples include a teen who does not binge but purges most meals in an effort to control weight or manage emotions. Or a child may have night eating syndrome, meaning most calories are consumed in the latter part of the day to evening, including episodes of eating late at night.

Body Image Concerns :-

Adolescents often experience body image concerns, which can be exacerbated by developmental changes, social and cultural influences, and media portrayals of ideal bodies. These concerns can negatively impact self-esteem, mental health, and even lead to disordered eating or body dysmorphic disorder.

Key aspects of body image concerns in adolescents:

Developmental Changes, Adolescence is a period of rapid physical and hormonal changes, including puberty, which can lead to feelings of self consciousness and dissatisfaction with one's body.

Social Influences :- Peer pressure and social media can amplify body image concerns, as adolescents compare themselves to unrealistic and often digitally altered images of others.

Media Portrayals: The media often promotes a narrow definition of beauty, emphasizing thinness for girls and muscularity for boys, which can negatively impact body image, especially among those who don't fit these ideals.

Mental Health: Negative body image can contribute to low self-esteem, depression, anxiety, social withdrawal, and even eating disorders like anorexia and bulimia

Gender Differences:- While body image concerns affect both boys and girls, girls may be more likely to focus on weight and thinness, while boys may focus on muscularity and height.

How to support adolescents with body image concerns:

- **Promote Media Literacy:**

Help teens develop critical thinking skills to evaluate media messages and understand that they are often unrealistic.

- **Focus on Functionality:**

Encourage teens to appreciate their bodies for what they can do rather than how hey look.

- **Foster Positive Self-Talk:**

Encourage self-compassion and positive affirmations about their bodies.

- **Limit Social Media Exposure:**

Encourage teens to curate their social media feeds to include diverse and positive body images.

- **Seek Professional Help:**

If body image concerns are severe, seek professional help from a therapist or other healthcare provider.

By understanding the factors contributing to body image concerns and supporting adolescents with positive messages and coping strategies, we can help them develop a healthy and positive body image

Promotion of Mental Health and prevention of disorders.

Mental health promotion and prevention interventions aim to strengthen an individual's capacity to regulate emotions, enhance alternatives to risk-taking behaviours, build resilience for managing difficult situations and adversity, and promote supportive social environments and social networks.

These programmes require a multi-level approach with varied delivery platforms – for example, digital media, health or social care settings, schools or the community – and varied strategies to reach adolescents, particularly the most vulnerable.

Early detection and treatment

It is crucial to address the needs of adolescents with mental health conditions. Avoiding institutionalization and over-medicalization, prioritizing non-pharmacological approaches, and respecting the rights of children in line with the United Nations Convention on the Rights of the Child and other human rights instruments are key for adolescents' mental health.

WHO response

WHO works on strategies, programmes and tools to assist governments in responding to the health needs of adolescents.

For example, the Helping Adolescents Thrive (HAT) Initiative is a joint WHO-UNICEF effort to strengthen policies and programmes for the mental health of adolescents. More specifically, the efforts made through the Initiative are to promote mental health and prevent mental health conditions. They are also intended to help prevent self-harm and other risk behaviours, such as harmful use of alcohol and drugs, that have a negative impact on the mental—and physical—health of young people.

WHO has also developed a module on Child and Adolescent Mental and Behavioural Disorders as part of the mhGAP Intervention Guide 2.0. This Guide provides evidence-based clinical protocols for the assessment and management of a range of mental health conditions in non-specialized care settings.

Furthermore, WHO is developing and testing scalable psychological interventions to address emotional disorders of adolescents, and guidance on mental health services for adolescents.

Related

Comprehensive Mental Health Action Plan 2013-2030
Guidelines on promotive and preventative mental health interventions for adolescents
Mental Health Gap Action Programme (mhGAP) Intervention Guide 2.0
LIVE LIFE: an implementation guide for suicide prevention in countries
Mental health in schools: a manual
Global Strategy for Women's, Children's and Adolescents' Health 2016–2030
Improving the mental and brain health of children and adolescents

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08

Menopause Hormone Therapy and mood

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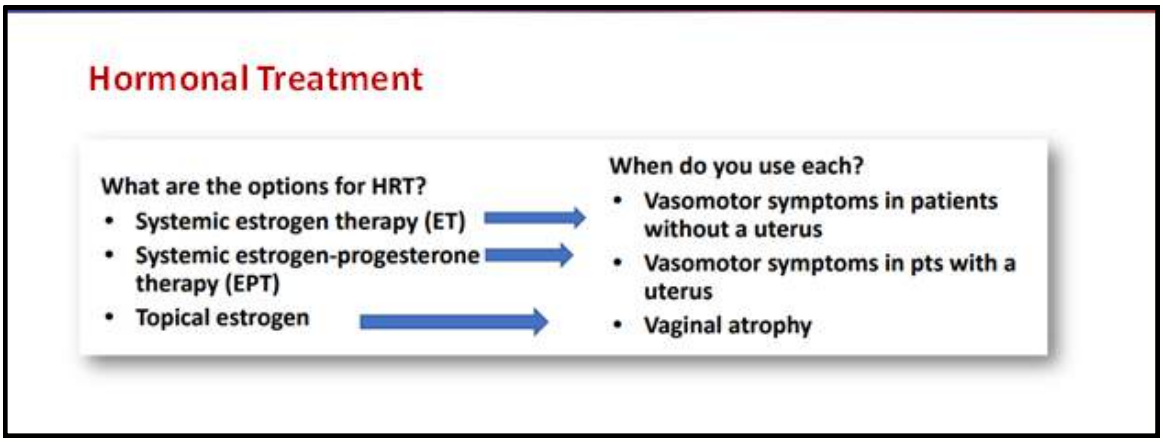
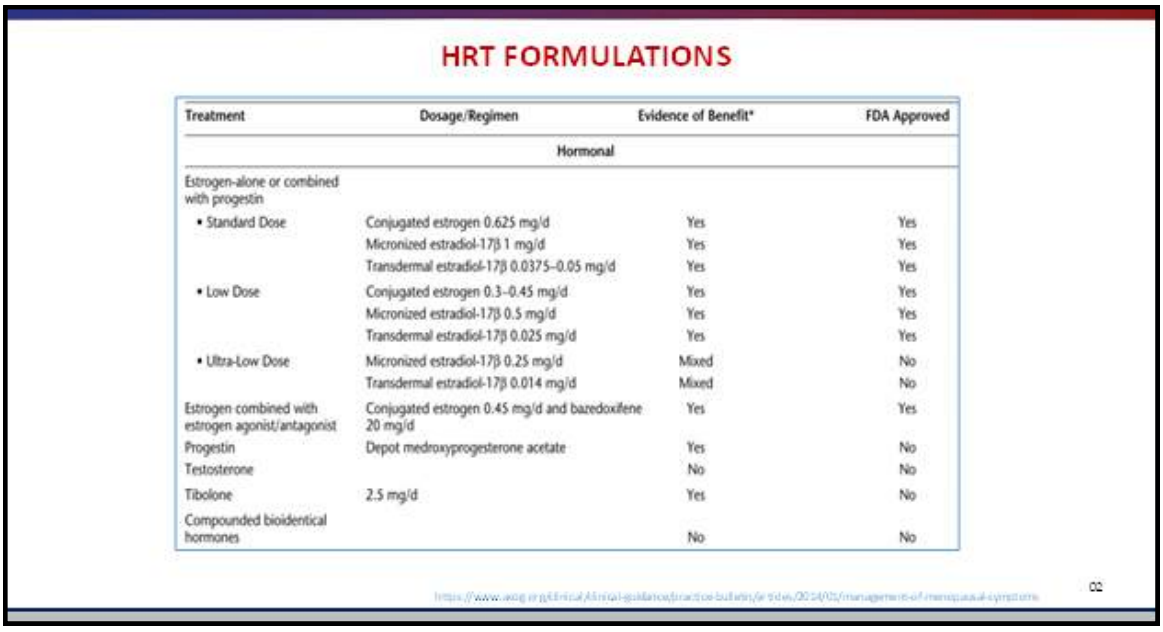
MENOPAUSE

Menopause is a transition phase of life characterised by complete cessation of menses. It usually occurs between the ages of 45-52 years. There are hormonal shifts , decline in estrogen and progesterone but it is the lack of estrogen which is responsible for mood changes like anxiety, irritability sadness and depression. Estrogen has neuroregulatory and neuroprotective properties.

TYPES OF MHT

Menopause hormone therapy previously known as hormone replacement therapy can be of the following types.





HRT FORMULATIONS

Treatment	Dosage/Regimen	Evidence of Benefit*	FDA Approved
	Hormonal		
Estrogen-alone or combined with progestin			
• Standard Dose	Conjugated estrogen 0.625 mg/d	Yes	Yes
	Micronized estradiol-17β 1 mg/d	Yes	Yes
	Transdermal estradiol-17β 0.0375–0.05 mg/d	Yes	Yes
• Low Dose	Conjugated estrogen 0.3–0.45 mg/d	Yes	Yes
	Micronized estradiol-17β 0.5 mg/d	Yes	Yes
	Transdermal estradiol-17β 0.025 mg/d	Yes	Yes
• Ultra-Low Dose	Micronized estradiol-17β 0.25 mg/d	Mixed	No
	Transdermal estradiol-17β 0.014 mg/d	Mixed	No
Estrogen combined with estrogen agonist/antagonist	Conjugated estrogen 0.45 mg/d and bazedoxifene 20 mg/d	Yes	Yes
Progestin	Depot medroxyprogesterone acetate	Yes	No
Testosterone		No	No
Tibolone	2.5 mg/d	Yes	No
Compounded bioidentical hormones		No	No

Non-hormonal drugs for vasomotor symptoms

Drug [NB1]	Dosage	Adverse effects
serotonin and noradrenaline reuptake inhibitors		
desvenlafaxine	25 to 150 mg orally daily	dizziness, nausea, sexual dysfunction
venlafaxine	37.5 to 150 mg orally daily	
selective serotonin reuptake inhibitors		
citalopram	10 to 20 mg orally daily	dizziness, nausea, sexual dysfunction
escitalopram	5 to 20 mg orally daily	
paroxetine [NB2]	10 to 25 mg orally daily	
other drugs		
clonidine [NB3]	25 to 75 micrograms orally twice daily	dizziness, drowsiness, constipation
gabapentin	100 to 900 mg orally daily in up to 3 divided doses	drowsiness, dizziness, possible withdrawal symptoms
oxybutynin [NB4]	2.5 to 5 mg orally twice daily	dry mouth, drowsiness, blurred vision

NB1: All drugs listed in the table, except clonidine, are not registered by the Therapeutic Goods Administration for treating vasomotor symptoms.
NB2: Paroxetine should not be co-administered with tamoxifen; co-administration can cause inhibition of cytochrome P450 2D6 and reduce the efficacy of tamoxifen.
NB3: Clonidine may be used but is no longer recommended because of its adverse effects.[10]
NB4: Oxybutynin may help symptoms of overactive bladder; however, it may cause adverse effects, particularly cognitive decline in older people.[10]

Aust Prescr 2021;44:48–53

09

LIFE STYLE MODIFICATION

 The role of Lifestyle modification in managing menopausal symptoms especially mood & vasomotor symptoms cannot be overlooked.

1.Diet and Nutrition - One should take diet rich in fruits, veggies, whole grains and proteins, Include calcium rich foods and take vitamin-D supplements .Foods rich in phytoestrogens and omega-3 fatty acids help with mood swings and bone pain. One should stay hydrated & avoid triggers.

2.Exercise & Physical Activity - 150 min of aerobic activity per week means 30 mins at least 5 days a week.

3.Stress Management - Mindfulness and meditation, Cognitive Behavioural therapy, sleep prioritisation and connecting with family and friends go a long way to improve mood.

4.Other - Maintaining healthy weight, quitting smoking and leading a sexually active life also help.
MODE OF ACTION OF MHT

MODE OF ACTION OF MHT

– MHT replaces the lost hormones mainly estrogen & progesterone and significantly brings about positive mood changes.

1.Reduces Mood Swings - Estrogen has mood regulatory properties and it's receptors are widely present in brain areas responsible for mood regulation like hippocampus and prefrontal cortex.

Reduces Depression and Anxiety - Estrogen regulates the secretion of serotonin responsible for controlling mood. Estrogen Supplementation increases serotonin levels and hence alleviates sadness, anxiety and depression

3. Improved Sleep - Sleep deprivation is an integral part of menopause due to hot flashes and night sweats and it increases anxiety, irritability and low mood. MHT improves sleep and hence has a positive effect on mood.

4. Sense of Well Being - MHT restores the lost sense of well being by improving the distressing symptoms of anxiety, depression and sleep disturbance. This gives them energy and calmness.

POINTS TO CONSIDER

The following things need to be kept in mind.

1. **Right Regimen** - There is a cafeteria choice available and what is elixir for one may be poison for other. Hence the treating person has to make a careful choice that suits the pt best.
2. **Side effects** - MHT is not without side effects. Breast Pain, headache, vomiting, vaginal bleeding endometrial ca and ca breast in the worst case scenario.
3. **Individual variation** - In the WHI no major mood improvements were noted in older menopausal women, however younger women demonstrated improvement. The timing hypothesissuggests that initiating MHT closer to onset of menopause yields better results due to greater neuronal receptivity to estrogen during early menopause.
4. **Route of Administration and Type of Hormone** - Transdermal estrogens avoid hepatic first pass metabolism and offer mood benefit with fewer systemic effects. Progestins and synthetic progesterone have adverse effect on mood like some women report negative impact with medroxy progesterone acetate.

CONCLUSION

Treatment has to be tailor made depending upon the pt proto type. This increases the benefit and reduces the risk. In clinical depression standard anti depressant treatment remains the cornerstone. Mood assessment should be done before initiating Hormonal therapy. It can safely be given for short term to women <60 years ofage or those with <10 years of menopause. The role of lifestyle modification such as regular exercise, meditation, smoking cessation and cutting down on alcohol is also significant. There should be informed decision making on the Part of the pt regarding MHT.

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09

Intimate Partner Violence & Trauma Informed Care

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Violence against women & girls is a global pandemic affecting more than 30% of women(around 736 million) worldwide, at least once in lifetime. It is an internationally recognised problem with UN adopting agenda in 2015 to eliminate violence against women(VAW) in all spheres and WHO taking a resolution in 2016 to strengthen healthcare system to address interpersonal violence[1,2]. Intimate partner violence(IPV) is a pattern of assaultive and/or coercive behaviour that includes physical assault, sexual assault, psychological abuse, isolation, stalking, intimidation, deprivation and reproductive coercion. Violence is perpetrated by someone who is, was, or wishes to be involved in an intimate or dating relationship with an adult or adolescent usually with aim of establishing control over the partner[3]. IPV can be experienced by both men and women irrespective of age, economic status, race, religion, ethnicity, sexual orientation, or educational background. However, the actual prevalence of IPV is difficult to determine as many victims do not disclose their experiences. Abuse is reported more among adolescence, immigrants, women with disabilities and older women[4].

India's National Family Health Survey (NFHS-5) found that one in three married women has experienced IPV, with physical violence being the most common (30%), followed by emotional violence (14%) and sexual violence (7%). Yet, data shows that around 9 in 10 women have never sought help when they face violence[5]. Domestic violence, though considered a criminal offense under section 498A IPC, is one of the gravest threats to women. In 2005 a dedicated law, The Protection of Women from Domestic Violence Act was introduced; but the cases are always rising. Specially during COVID-19 pandemic, due to isolation, increased stress, economic setbacks and threatened livelihoods, the violence and abuse further intensified[2]

Various forms of IPV- The various patterns of IPV are shown in the image[4,6]

Image 1: Types of IPV

Consequences of IPV-

Physical effects- Women with IPV may come with acute injuries in face, head, hands, abdomen, breasts or genitalia or may repeatedly attend emergency department for treatment of wounds, burns, cuts over body. There may be recurrent genital infections, abdominal pain[4,7]. These problems may lead to temporary or permanent disabilities affecting the women's productivity, quality of life.

Mental/ psychological effects- Effects of IPV on mental health is immense[2,8]. These include symptoms of post-traumatic stress disorder(PTSD), anxiety, depression leading to suicide or substance abuse. Emotional abuse has significant long term sequelae on victims with its consequences being worse than physical assault[7]. Years of abuse along with everyday stressors associated with job, children and economic problems gradually lead to prominent clinical symptoms of mental disorders[8]. Many women may present with many psychosomatic/somatoform symptoms, which are treated as some physical disorders with symptomatic treatment. But the root cause is the constant oppression or IPV. The various clinical presentations that may be seen are described in Table 1.

Various women facing IPV report feeling shamed and guilty, thinking the abuse to be their fault. They feel that they have failed to fulfil their roles in the marriage and are supposed to be obedient and maintain marital harmony against all odds. Abuse by husband is considered normal in many societies worldwide. Communities seldom offer help to these women unless the matter is too serious or the couple seeks intervention. These combination of social stigma regarding women's role, patriarchal ideologies and self-blame causes significant distress in the women. To add to this, financial dependence makes them feel even more helpless. They feel even more burdened to retain the appearance of being strong while dealing with mental health problems. Survivors who stand up against IPV loses social support and are many times socially isolated. Getting a divorce is also a social stigma. Thus, these women experience uncertainty, powerless and distress for themselves and their children[8].

Such extensive but normalized violence against women and girls leads to continuous fear and violates the dignity of women and girls. This fear along with victim blaming, shame, stigma and discrimination may lead to withdrawal and isolation, severely limiting victim's freedom, career aspirations, ability to work, and social connections that are key for well-being. These factors may severely limit victim's ability to work at home and outside, and the resulting income loss can make it difficult for survivors to support their children and themselves. These ultimately hampers women's quality of life, causes self-doubt and lowers self-esteem.

Effects on children- 1/3 of children in LMIC have been exposed to IPV in their lifetime, which can lead to mental and psychosocial effects[8,9]. The various effects are-

- Mood and anxiety disorders including PTSD
- Conduct disorders, adjustment problems
- Substance abuse, high risk sexual behaviour
- Long term health problems- cardiovascular disorders, cancer, diabetes, reproductive health problems
- More chances of criminal activities, more chances of perpetrating or experiencing IPV as adults.

Impact of IPV in pregnancy- 1/3 of women facing violence, face it during pregnancy. The effects seen are[10]-

- Abortions
- Antepartum haemorrhage
- Vulval hematomas
- Preterm birth
- Stillbirth
- Low birth weight
- Physical injuries
- Convulsions
- Homicide and suicide
- High chances of postpartum depression and lactation difficulties/ failure.

• Symptoms of depression, anxiety, sleep disorders
• Post traumatic stress disorder(PTSD)
• Suicidal tendencies, self-harm
• Alcohol and other substance use
• Unexplained chronic gastrointestinal symptoms
• Reproductive symptoms like pelvic pain, sexual dysfunction, repeated vaginal bleeding and sexually transmitted infections
• Chronic aches and pains
• Adverse reproductive outcomes, including multiple unintended pregnancies and/or terminations, delayed pregnancy care, adverse birth outcomes
• Unexplained genitourinary symptoms, including frequent bladder or kidney infections or other
• Traumatic injuries which may be repeated and with vague or implausible explanations
• Headaches, cognitive problems, hearing loss
• Intrusive partner or husband in consultations
• Repeated health consultations with no clear diagnosis

Table 1: Clinical presentations associated with IPV [11]

Trauma informed care-

Trauma is defined as "an event or series of events, or set of circumstances that is experienced by an individual as physically or emotionally harmful or life threatening and that has lasting adverse effects on the individuals functioning and mental, physical, social, emotional or spiritual wellbeing". IPV is such a trauma. Years of trauma can lead to adverse mental & physical health, chronic diseases and death[12,13]. Trauma-informed care means providing care that acknowledges effects of trauma on health outcomes, recognizes signs of exposure to trauma, responds to patients' needs, providing physical, psychological, and emotional safety; and avoids retraumatizing survivors[13].

Six fundamental principles to be followed, in such care, includes 1) safety, 2) trustworthiness and transparency, 3) peer support, 4) collaboration and mutuality, 5) empowerment, voice, and choice, 6) cultural, historical, and gender issues[14].

It is always better to treat all patients with trauma-informed care presuming that they have been exposed to some trauma[15]; specially in midwifery and gynecologic settings. Emphasis should be to provide a safe space and empowering environment for all patients, especially those with trauma, from the moment they walk in the door, as we have to keep in mind that potentially all our patients may have had some trauma and it's our duty to give them all possible support. Patients do not come with history of trauma; but we will have to recognize signs and symptoms and provide them the necessary care. However, WHO has strictly recommended against universal screening except in presence of clinical features already discussed in Table 1.

Approach of healthcare-providers in IPV- Healthcare providers should keep in mind that while dealing with trauma survivors, the encounter may induce anxiety or retraumatization. These effects can show up as acute effects on the body, including hypertension, tachycardia, perspiration, poor concentration, exaggerated startle response, agitation, dissociative, and appearing withdrawn, numb, or detached from the event[15,16]. Hospital sounds, smells, procedures, intrusive thoughts, or flashbacks during questioning can trigger such responses[16]. Medical procedures and treatments can be distressing and trigger PTSD symptoms in persons with trauma histories.

Healthcare providers should offer first line support when IPV is disclosed. This include listening carefully without intruding, being supportive, non-judgemental, sensitive and validating what they say. Confidentiality should be maintained. They should help her access to all resources that are needed for her to get legal help and social support and assist in providing safety for her and her children[6].

In medicolegal cases & cases of sexual violence- Medical professionals have an important role in documenting the injuries and statements made by survivors in intimate partner violence. Good medical documentation can be crucial in civil and criminal cases as evidence. Along with jurisdiction help, plan should be also be made regarding victim safety. In case of sexual assault and those with grievous injuries, proper documentation of the history, stating timeline and series of events, appropriate and complete physical examination and reporting to the police is very important, if the survivor wants to take legal action[6,7]. Many times, in IPV, victims do not want to report, then we cannot put this case as medicolegal, unless in cases of minors and mentally challenged women. Then appropriate documentation is very important for the healthcare providers; in case the woman wants to press charges later.

Protocols developed by the Ministry of Health & family Welfare(MoHFW) for sexual violence should be implemented[6,17], including:

- Informed consent of survivor should be sought for examination, treatment, evidence collection and informing the police
- Gender-sensitive proforma should be used that does not record status and type of hymen or measure the size of the vaginal opening or make any comment on sexual habits of the survivor
- Chain of custody for management of evidence collected should be determined
- Immediate first aid such as pain relief, emergency contraception and prophylaxis for sexually transmitted infections should be given- Emergency contraception like levonorgesterol or IUCDs or COCs should be offered to survivors of sexual assault presenting within 5 days of sexual assault, ideally as soon as possible after the assault, to maximize effectiveness. HIV post-exposure prophylaxis (PEP) should be ·offered for women presenting within 72 hours of a sexual assault after shared decision-making with the survivor, to determine whether HIV PEP is appropriate. Presumptive treatment of chlamydia, gonorrhea, trichomonas must be offered.

Doctors should provide reasoned medical opinion and explanation that the absence of injuries and/or absence of forensic evidence is common, which can help survivors in court[17]

Managing mental health issues- Women who present with mental health issues with IPV (such as depressive disorder or alcohol use disorder) should receive mental health care for the disorder[18], delivered by health-care professionals with a good understanding of VAW. Antidepressants should not be considered for the initial treatment of adults with mild depression; but can be given in moderate to severe depressive episode/disorder or in those with history of mental health disorders. Interpersonal therapy, Cognitive behavioural therapy (CBT) and problem-solving treatment should be offered. Psychological treatment can also be given to those who come with psychosomatic symptoms. Relaxation training and advise on physical activity have also shown to improve symptoms. Eye movement desensitization and reprocessing (EMDR) interventions can be offered in PTSD.

Barriers in providing trauma-informed care-

Various studies have shown a lack of formal training and self-perceived competence among healthcare providers to provide trauma-informed care[16]. Significant barriers to this include lack of training, time constraints, fear of retraumatizing patients, and conflicting information about trauma-informed care. For effective care, multilevel approach including policy making, training and financing are important. Training should be across three job roles- providers, healthcare support staff, and administrative support staff[12].

Clinical guidelines developed by the WHO in 2013 recommend that health systems responses to VAW be integrated within clinical care at all levels (primary to tertiary) and have flexible models for provision of care at various levels[6]. To date, the MoHFW has not translated these recommendations into clear policy and program guidelines. India's National Health Policy (NHP) did not recognize VAW as a health care issue until 2017. The policy now clearly mandates that all survivors of violence must receive free services and recommends that gender sensitization training be carried in all health facilities and that it be included in the medical curriculum[17].

Strategies need to be made to deliver services such as counseling, advocacy, referrals to other needed social services (such as shelter, legal aid, educational and job training programs and medical services) and providing mental health services that are gender-sensitive.

A specific department like crisis intervention department can be opened in certain health care centers to address the issues of women facing violence.

How to spread awareness- Written information on intimate partner violence should be available in health-care settings in the form of posters, and pamphlets or leaflets made available in private areas such as women's washrooms with appropriate warnings. Women empowerment is equally important and resisting systemic oppression should be put into the mind of everyone through questioning common notions about violence and dealing with the fear, anxiety and shame that keeps violence under cover.

Conclusion- IPV is very common and leads to mental and physical health problems. We as gynecologists can take the initiative to screen women facing violence and give them appropriate care and counselling.

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10 Substance-Use Disorders in Women: Perinatal Opioid Use & Medication-Assisted Treatment

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Abstract
Substance Use Disorder (SUD) among women—especially during pregnancy—is a growing concern in modern healthcare, demanding both clinical expertise and compassionate understanding. With the opioid crisis touching every corner of society, pregnant women have emerged as one of the most vulnerable yet overlooked groups. Perinatal opioid use not only endangers the health of the mother but also profoundly affects fetal development, sometimes resulting in Neonatal Abstinence Syndrome (NAS). Fortunately, Medication-Assisted Treatment (MAT), supported by counselling and wraparound services, offers a pathway to healing. This article examines the landscape of perinatal opioid use disorder (POUD), reviews the science and strategy behind MAT, and makes the case for a more inclusive and humane healthcare response.

Introduction
Pregnancy is often portrayed as a time of joy, connection, and hope. However, for many women living with addiction, it can feel like the most terrifying and isolating chapter of their lives. While society may idolize the image of a glowing, expectant mother, it rarely accounts for the complex reality faced by those struggling with opioid dependence. These women often find themselves caught between two equally daunting fears: the consequences of untreated addiction and the judgment—or even punishment—they may face if they seek help.

The conversation about substance use in pregnancy is still shrouded in stigma, misunderstanding, and shame. But we cannot afford to ignore the growing number of women facing these dual challenges. As medical professionals, public health experts, and community advocates, we have a responsibility to offer more than just treatment—we must offer trust, dignity, and a vision for recovery that includes both mother and child.

Epidemiology: The Numbers Behind the Crisis
The rate of opioid use during pregnancy has soared in recent years, largely driven by overprescribing patterns, increased heroin availability, and the rise of synthetic opioids like fentanyl. According to U.S. data, approximately 1 in 70 pregnant women is diagnosed with OUD, and in some high-risk areas, the rates are even higher.
What's even more troubling is the increase in NAS—infants born dependent on opioids and suffering from withdrawal. These new-borns may spend weeks in the NICU, undergoing treatment and careful monitoring. In some hospitals, NAS cases now exceed those related to prematurity or congenital abnormalities, highlighting the scale of this issue.

Globally, reliable data are harder to obtain, but the trend is similar. As the opioid crisis spreads to regions in Europe, Southeast Asia, and Latin America, more pregnant women are being swept into its current. However, due to underreporting and lack of standardized care models, many of these women suffer in silence.

Why Women Are More Vulnerable

Substance use and addiction affect men and women differently, and pregnancy adds yet another layer of complexity. For women, opioid use is often linked to trauma, mental health struggles, or chronic pain conditions. Many start with a legitimate prescription—post-surgical pain, migraines, or injury—and find themselves dependent without even realizing it.

Add to this the physiological changes of pregnancy—hormonal shifts, altered drug metabolism, and increased sensitivity to pain—and the path to dependency can be accelerated. The telescoping effect, where women progress from use to addiction faster than men, is well-documented.

But the bigger challenge is the shame. Women are culturally conditioned to be caregivers, nurturers, and protectors. When they struggle with addiction, it feels like a violation of that identity. This internal conflict often delays help-seeking behavior, increasing the risk to both mother and baby.

What Happens When Opioids Enter the Picture During Pregnancy?

Opioids act on the brain's reward system, blocking pain and producing feelings of euphoria. Over time, the body adapts, and tolerance builds. For a pregnant woman, this can create a vicious cycle—physical dependence coupled with emotional guilt, compounded by fear of legal or social consequences.

When opioids are consumed during pregnancy, they cross the placenta and enter the fetus's bloodstream. The fetus becomes physiologically dependent as well. After birth, the sudden discontinuation of opioid exposure can lead to NAS. Symptoms range from tremors, vomiting, and poor feeding to high-pitched crying, fever, and seizures.

For the mother, the stakes are equally high. Risks include:

- Preterm labor
- Preeclampsia
- Intrauterine growth restriction (IUGR)
- Stillbirth
- Placental abruption
- Higher rates of cesarean section
- Maternal overdose or suicide

This is not merely a medical problem—it's a crisis of systemic neglect and inadequate access to safe, stigma-free care.

Diagnosing and Identifying SUD in Pregnancy

Detection must start with screening—but with sensitivity. Women should never feel they are being interrogated. Instead, clinicians can use brief, validated tools like the **4Ps Plus** or the **CRAFFT** questionnaire during routine prenatal visits.

If concerns arise, a thorough clinical interview and (where appropriate) a confirmatory urine toxicology test can follow. It's important to always explain the purpose of testing and how results will be used—especially in states or countries where substance use in pregnancy can lead to legal action or child welfare involvement.

Beyond testing, we need to listen. Many women want help but feel voiceless in healthcare settings. Building rapport, demonstrating empathy, and keeping an open dialogue can be as therapeutic as any medication.

MAT: A Lifeline for Pregnant Women

Medication-Assisted Treatment (MAT) is widely recognized as the most effective way to manage OUD during pregnancy. It stabilizes maternal opioid levels, reduces the risk of relapse and overdose, and leads to better prenatal care engagement.

1. Methadone

This long-acting opioid agonist has been used since the 1960s. It's effective but tightly regulated, requiring daily visits to licensed clinics. This can pose logistical challenges, especially for women without transportation, childcare, or stable housing. Still, methadone significantly reduces illicit opioid use and improves birth outcomes.

2. Buprenorphine

A partial agonist, buprenorphine is often preferred today for its safety profile. It can be prescribed in office-based settings and is associated with milder NAS. Studies like the MOTHER trial have shown that buprenorphine-exposed infants require less pharmacologic treatment and spend fewer days in the hospital.

3. Naltrexone

Generally avoided during pregnancy, naltrexone can be introduced postpartum in women who have already undergone detox. It works as an opioid blocker, preventing relapse without producing euphoria or sedation.

Support Beyond Medication: A Wraparound Approach

Recovery isn't just about managing cravings. It's about rebuilding trust, identity, and stability. That's where counseling, case management, peer support, and social services come in.

Effective MAT programs incorporate:

- **Trauma-informed therapy** (like CBT or EMDR)
- **Group support** (ideally female-specific)
- **Parenting education**
- **Housing and legal advocacy**
- **On-site prenatal and pediatric care**

One model gaining popularity is the **Centering Pregnancy + Recovery** approach, where women attend group prenatal care sessions with others in recovery. This promotes peer connection, reduces isolation, and normalizes their journey.

Caring for the Newborn: What About NAS?
The care of opioid-exposed infants has evolved significantly. While NAS can be distressing, newer protocols such as **Eat, Sleep, Console (ESC)** have shifted the focus from symptoms to function. Rather than medicate immediately, providers assess whether the baby can:

- Eat adequately
- Sleep more than an hour
- Be consoled within 10 minutes

If these functions are intact, pharmacologic treatment is often avoided. Non-medical interventions such as swaddling, skin-to-skin contact, breastfeeding (when appropriate), and rooming-in can dramatically reduce NAS severity and hospital stay.
Importantly, allowing mothers to remain with their babies fosters bonding and reduces postpartum relapse.

The Critical Postpartum Window
The weeks after delivery are among the most dangerous for women with OUD. Hormonal changes, sleep deprivation, and emotional turbulence heighten the risk of relapse or overdose. Data show that opioid-related deaths spike between 6 weeks and 1 year postpartum.

Women need continued MAT, mental health support, and parenting help during this time. Unfortunately, many are discharged from OB care after just six weeks, often falling through the cracks of fragmented healthcare systems.

Programs like **Mother & Baby Residential Recovery Homes**—which allow women to live with their infants while receiving treatment—have shown incredible promise. These models not only improve maternal retention in care but also support child development, reduce foster placements, and promote generational healing.

Barriers and Stigma: The Elephant in the Room

Despite everything we know, many women still avoid care. Why? Because they're afraid—of being judged, losing custody of their baby, or being criminalized. Sadly, their fears aren't unfounded. In more than 20 U.S. states, substance use in pregnancy is treated as child abuse. In others, new-borns with positive toxicology screens are automatically referred to child protection.

This punitive approach doesn't just fail women—it harms children. It deters prenatal care, worsens outcomes, and perpetuates cycles of trauma. The alternative? A compassionate, evidence-based model that views addiction as a treatable condition—not a moral failing.

Looking Ahead: Building a System That Works

So where do we go from here?

1. **Expand Access to MAT** – Especially in rural or underserved communities, through telemedicine and integrated care.
2. **Train Providers** – Many OBs and paediatricians lack addiction medicine experience. Continuing education must close this gap.
3. **Reform Policies** – Shift from punishment to prevention. End criminalization and focus on family preservation.
4. **Invest in Recovery**-Friendly Programs – Housing, childcare, vocational training, and long-term postpartum support.
5. **Listen to Women** – Include their voices in policy, research, and clinical design. After all, they are the experts of their own lives.

Conclusion

Substance use disorder in pregnancy isn't about poor choices—it's about unmet needs. And while opioids have taken much from these women—their health, their peace, sometimes even their children—recovery can give them something even greater: a future.

Medication-Assisted Treatment, wrapped in empathy and strengthened by community, is not just effective—it's life-saving. But it requires all of us—doctors, nurses, policymakers, and society at large—to rise above judgment and lean into care.

Because when we support women, we protect their babies. And when we believe in recovery, we make room for healing—for generations to come.

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11

Mental Health In Gynecologic Oncology Patients

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Over the past few decades, the treatment modalities for female genital cancers have improved significantly. With this, the number of women surviving cancer treatments has also increased. Prevalence of depression before, during and after treatment of gynaecologic cancer has been reported to range from 25.34%, 22.99%, 12.71%.[1] Yet, unfortunately, not much attention is paid to this aspect of caregiving, especially in low- and middle-income countries, where the patient load is often disproportionately high compared to the available healthcare resources.

Factors contributing to neglected mental health in women with Gynaecologic Cancers

Both mental health and genital cancers are still a social stigma. There is lack of awareness about mental illness as a definite disease entity, which is amenable to treatment. Even if women realise, they are suffering from a problem, it is often disregarded as a matter-of-fact part of cancer diagnosis. Most women are dependent members of their family; their health never being prioritised. Adding to the problem is the fact that a lot of health care professionals providing treatment and care to these women had not received enough training on supportive care topics during their medical school programs. Most centres catering to these patients do not have professional psychiatrists or psychologists employed as a part of their care providing teams. Additionally, there is deficiency of a site-specific referral pathway protocol to deal with onco-psychological situations.

Diagnostic tools for Mental Illness in women with Gynaecologic Cancers

To detect psychological issues in people with cancer, National Comprehensive Cancer Network in its Distress Management Guidelines has proposed the use of Distress thermometer [2] with or without use of problem list to identify and quantify the degree of distress faced by women with cancer. Distress thermometer is a single item visual analogue scale that ranges from 0(no distress) to 10(extreme distress) allowing patients to indicate their level of distress. Distress instruments when used, enables early detection of mental health issues. The problem list enlists various problems like physical, emotional, practical, social, spiritual or religious or other. It is well established that distress screening when associated with appropriate management improves cancer survival.

Mental Health issues in women with Gynaecologic Cancers

Meta analysis conducted by S Wats et al [1], revealed that adjustment disorder, anxiety and depression are the most common mental health issues faced by women with diagnosis of Gynecologic cancer. Dham Ho [3] measured psychological symptoms using the National Cancer Center Psychological Symptom inventory (NCCPSI) scale and reported that women tend to suffer from anxiety from the time they are first diagnosed with cancer and started on treatment up till the following one year. The fear of the modalities of treatment, the probable finances involved, the extent of the compromise of the quality of life and many other uncertainties including life expectancy, are responsible for the anxiety.

Subsequently, most women are found to suffer from depression symptoms due to the life-threatening nature of cancer and invasive treatments. Each time during the course of the treatment they undergo any further tests and are waiting for their results, anxiety levels rise. The fear of deterioration of the disease or recurrence being the obvious reasons. Long cycles of chemotherapy, persistent side effects of chemoradiation such as intestinal obstruction or ascites which are associated with pain, fatigue, and ultimately lower quality of life makes them anxious. Women who have completed their treatment tend to face post-traumatic stress disorders. (PTSD).

Effect of Gynaecologic Cancer on mental health of women

Being diagnosed with genital cancer can have major emotional and psychological impact on the woman and her family, due to the intimate nature of their diagnoses and the potential impact on their reproductive and sexual health, body image, and overall quality of life.

Effect of mental disorder on Gynaecologic cancer

The study by Walker et al [4] explored the impact of early psychiatric interventions on chemotherapy adherence in cancer patients They reported that women diagnosed early and those who received treatment timely were more likely to be compliant to treatment and complete the entire cycle of chemotherapy, leading to better survival. This Lancet oncology article highlights the importance of addressing mental health concerns early in the cancer treatment process to improve treatment adherence, particularly during chemotherapy.

Impact of demographic factors and cancer type with mental health in Gynecologic cancers

Young women when diagnosed with genital cancer face adjustment problems more than elderly women. D Ghamari et al [5] in their study found that women less than 55 years of age were the ones most affected. To young women, genital cancers may mean loss of fertility or femineity. Moreover, they have more desire to live and have more family responsibilities. On the contrary the ones beyond 55 years were found to be living with the disease for some time. They were more accustomed with the situation and had learnt coping mechanism.

Less educated women from rural backgrounds suffer more than educated urban women. Mostly, because they are unable to comprehend early signs of mental issues. Then, they are dependent on others to be taken to health facility thereby delaying their diagnosis and seeking appropriate help. Educated women are more likely to indulge in healthy life style activities and self-care.

Out of all genital malignancies, [6]women suffering from Ovarian cancers are most likely to suffer from mental health issues, namely sadness and anxiety. There is emphasis to pay more attention to ovarian cancer than other gynaecological cancers.

Problems associated with psychotherapy drugs used in patients on chemotherapy

Once diagnosed with mental illness, starting cancer patients on onco- therapy with psychotropic drugs is challenging. Factors like poor nutrition, poor body mass index, extremes of age, poly pharmacies and possible enzyme deficits due to genetic or iatrogenic causes predisposes them to higher chances of anticancer drug (ACD)-psychotropic drug-drug interactions. Drug interactions are particularly significant with antimicrotubule agents (vinca alkaloids, taxanes), tyrosine kinase inhibitors, corticosteroids, when combined with tricyclic antidepressants and barbiturates[7]. In these interactions, the toxicity of certain agents may be heightened, or sometimes failing therapies may be encountered. Specialists should remain vigilant regarding these interactions.

Table:1

Psychiatric/Psychotropic drugs commonly used in cancer patients
Anti-depressants
Anxiolytics
Mood stabilisers
Anti psychotics

Table: 2

Antineoplatic drugs frequently associated with interactions with psychotropics	Psychotropics with highest prevalence of interactions with chemotherapeutic drugs
Oxaliplatin	SSRIs, sertraline, paroxetine, fluoxetine, escitalopram
Paclitaxel	Antipsychotics: Quetiapine
Cisplatin	Anticonvulsants:Barbiturates
Doxorubicin	Tricyclic antidepressants
Irinotecan	SSNRIs: Venlaxafine

Psycho therapies

It is normal for cancer fighters to be distressed and this should be conveyed to the patients' time and again.

Modalities like Talk Therapy which includes Counselling and Psychotherapy are very effective for managing distress in patients with cancer. Counselling provides short term help for outward problems while psychotherapy provides in-depth, long-term help to the inner person. Cognitive behaviour therapy is useful in managing depression, anxiety, pain and fatigue which so commonly affects cancer patients. To help these women cope with their situation, newer modalities like Mindfulness Based Interventions including: guided mindful meditation, breathing exercises, sleep stories, relaxation techniques, [8]mindful meditation using mobile apps are being introduced. Utilising the near universal usage of mobile phone, Telehealth for Cancer Survivors in Rural Areas also holds promise to help women uniformly.

Conclusion

Patients diagnosed with gynaecological cancers undergoing treatment tend to suffer from various mental distress states. Adverse mental conditions tend to affect treatment adherence eventually compromising patient survival. Screening for distress using standardised distress tools should form a routine part of every visit. Early treatment interventions like, psychotherapy with or without pharmacotherapy should be initiated early to improve patient outcome. A clinical pharmacist should ideally be included in the team to take care of drug interactions. Mindfulness based interventions, utilising digital technology holds future in helping women in remote areas access innovations in onco-psychology care.

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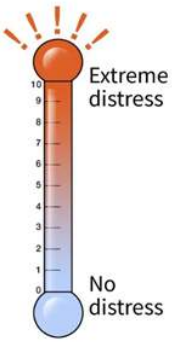

Figure 1:Distress Thermometer as adopted from NCCN

12 Female Sexual Dysfunction & Psychotropic Side-Effects: Pharmacologic & Device Solutions

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INTRODUCTION

Female sexual health is a vital aspect of overall wellbeing yet it is frequently overlooked and misunderstood. It is a multifactorial condition that affects women's physical and mental health as well as interpersonal relationship.

DEFINITION

According to Diagnostic and Statistical Manual of Mental Disorder (DSM-5) 2013…Female sexual dysfunction includes persistent or recurrent problems encountered in one or more of the stages of sexual response ie interest/arousal, penetration, orgasm and resolution.

These symptoms

- Must cause distress
- Must occur at least 75% of the time
- Should persist over 6 months of period

INCIDENCE

Approximately 40-50% of women worldwide experience some form of sexual dysfunction at some point of time. Among the various subtypes FSIAD is the most prevalent type of dysfunction.

Diagnostic and Statistical Manual of Mental Disorders-
REVISED DIAGANOSTIC CRITERIA

DSM-IV- Diagnoses (2000)	Changes in DSM-5 (2013)
Female hypoactive desire disorder	**Female sexual interest/arousal disorder (FSIAD)**
Female arousal disorder	
Female orgasmic disorder	Same
Dyspareunia	**Genito-pelvic pain/penetration disorder**
Vaginismus	
Sexual aversion disorder	Deleted
Sexual dysfunction due to a general medical condition	
Substance/medication-induced sexual dysfunction	Unchanged
Sexual dysfunction NOS	Replaced by Other specified sexual dysfunctions and Unspecified sexual dysfunction

EFFECTS OF SEXUAL DISORDER

PSYCHOTROPIC EFFECTS
Anxiety
Low self Esteem
Depression and unhappiness
Irritability and worry
Frustration and sense of futility
Arguments
Disturbed interpersonal relationship

MARITAL DISHARMONY
INFERTILITY
DIVORCE
EFFECT ON MALE
Premature ejaculation
Erectile dysfunction

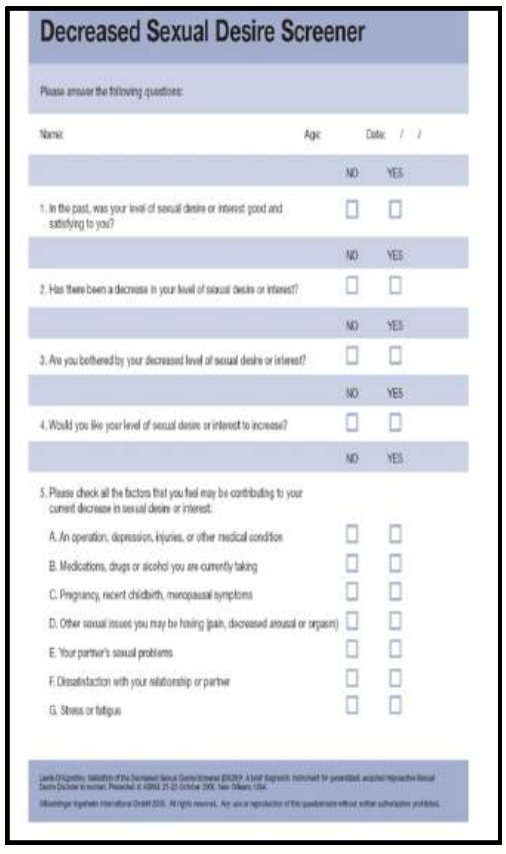
FEMALE SEXUAL INTEREST/AROUSAL DISORDER

DIAGNOSTIC CRITERIA

Absence or reduced sexual interest /arousal for at least 6 months with at least 3 of the following symptoms.

1.Absent /reduced interest in sexual activity.
2.Absent/reduced sexual/erotic thoughts and fantasies.
3.No/reduced initiation of sexual activity; unresponsiveness to partner's attempt to initiate sexual activity.
4.Absent/reduced sexual excitement/pleasure during sexual activity in at least 75% of encounters.
5.Absent/reduced sexual interest/arousal in response to any internal or external cues (written, verbal, visual).
6.Absent/reduced genital or non genital sensation during sexual activity in at least 75% of sexual encounters.

SCREENING FOR FSAID



Decreased Sexual Desire Screener

Please answer the following questions:

Name: Age: Date: / /

	NO	YES
1. In the past, was your level of sexual desire or interest good and satisfying to you?	☐	☐
2. Has there been a decrease in your level of sexual desire or interest?	☐	☐
3. Are you bothered by your decreased level of sexual desire or interest?	☐	☐
4. Would you like your level of sexual desire or interest to increase?	☐	☐

5. Please check all the factors that you feel may be contributing to your current decrease in sexual desire or interest.

A. An operation, depression, injuries, or other medical condition	☐	☐
B. Medications, drugs or alcohol you are currently taking	☐	☐
C. Pregnancy, recent childbirth, menopausal symptoms	☐	☐
D. Other sexual issues you may be having (pain, decreased arousal or orgasm)	☐	☐
E. Your partner's sexual problems	☐	☐
F. Dissatisfaction with your relationship or partner	☐	☐
G. Stress or fatigue	☐	☐

If the patient answers "YES" to all of the questions 1 through 4, and your review confirms "NO" to all of the factors in question 5, then she qualifies for the diagnosis of generalized acquired HSDD.

If the patient answers "YES" to all of the questions 1 through 4 and "YES" to any of the factors in question 5, then decide if the answers to question 5 indicate a primary diagnosis other than generalized acquired HSDD. Co-morbid conditions such as arousal or orgasmic disorder do not rule out a concurrent diagnosis of HSDD.

If the patient answers "NO" to any of the questions 1 through 4, then she does not qualify for the diagnosis of generalized acquired HSDD.

MANAGEMENT OF FSAID

Includes counselling, psychotherapy and pharmacotherapy

TOOLS FOR OFFICE BASED COUNSELLING

PLISSIT AND EX-PLISSIT

This model is a stepwise approach for sexual counselling specially for general health care providers caring for women with sexual concern.

This model includes Permission, Limited information, Specific suggestion and Intensive Therapy. Extended version also includes Education.

PERMISSION

To talk about sex
To share feelings of grief, guilt, anger etc
To see sexuality as a learning /discovery process
To not be sexual when you don't want to be

LIMITED INFORMATION

Of nature of the problem
Treatment option
Psychosexual education
Realistic expectations

SPECIFIC SUGGESTION

How to meet sexual needs or other needs if sex is not possible.
New possibilities in exploring intimacy, sensuality and eroticism.

INTENSE THERAPY

Stress management and individual psychotherapy.

Cognitive Behavioural Therapy (CBT) Acceptance and Commitment Therapy (ACT)

Solution focused approaches.

PSYCHOTHERAPY

COGNITIVE BEHAVIORAL THERAPY

It is evidence based psychotherapeutic approach for female sexual dysfunction.

It focuses on identifying and modifying maladaptive thoughts, emotional responses and behaviours that interfere with healthy sexual functioning.

SEX THERAPY-SENSATE FOCUS

It involves step-wise graded series of nondemand sensual touching exercises that gradually rebuilds physical intimacy between partners.

Initial phase begins with nonsexual, gentle touch to create comfortable space for the couple and improve communication.

Progression to sexual touch leads to deeper understanding of each partner's desires and preferences.

Communication and feedback without judgement is the key during the process.

PHARMACOTHERAPY

FLIBANSERINE:

First FDA-approved medication for hypoactive sexual desire disorder in premenopausal women. **(Ref. 01)**

Serotonin is 5-HTIA agonist and 5-HT2A antagonist which acts centrally

Increases norepinephrine and dopamine and decreases serotonin in brain areas involved in sexual desire.

Dose: 100mg oral at bedtime. Benefits may take 4-8 weeks

Contraindication: Alcohol and grapefruit juice, hepatic impairment

BREMELANOTIDE

This is an USFDA approved drug to treat generalized HSDD in premenopausal women.

It is a melanocortin-4 receptor agonist and acts on hypothalamus stimulating dopaminergic pathways involved in sexual desire.

Dose: 1.75 subcutaneous injection 45 minutes before anticipated activity

Also available as tablets and nasal spray.

Study by Simon, JA et al in patients with hypoactive sexual desire disorder found that bremelanotide treatment was associated with sustained improvement in sexual desire with long term safety and efficacy. **(Ref. 02)**

BUSPIRONE

A serotonin 1A partial agonist with mild dopaminergic effect is an anxiolytic.

Reduces sexual inhibition caused by anxiety and may enhance libido, arousal and orgasm.

Dose: 5 mg twice daily

PDE-5 inhibitors (Sildenafil):

- Increases blood flow to genitals leading to improved arousal and orgasmic sensation.
- Increases Lubrication.
- 50 mg 1 hour before anticipated sexual activity.

HORMONAL THERAPY

- Estrogen, HRT, Tibolone
- Androgens-Testosterone, DHEA
- Estrogen Testosterone combined treatment

Preferred treatment for peri and postmenopausal women

ANTIDEPRESSANTS

Depression can cause sexual dysfunction and antidepressants can improve it. However, use of antidepressants has also been associated with sexual dysfunction. **(Ref. 03)**

GENITOPELVIC PAIN /PENETRATION DISORDERS DIAGNOSTIC CRITERIA

Persistent or recurrent difficulties in

Vaginal penetration during intercourse

Marked vulvovaginal or pelvic pain during vaginal intercourse or penetration attempts

Marked fear or anxiety about vulvovaginal or pelvic pain in anticipation of, during or as a result of vaginal penetration

Marked tensing or tightening of the pelvic floor muscles during attempted vaginal penetration .

VAGINISMUS, VESTIBULODYNIA and DYSPAREUNIA
overlap in many cases.

MULTIDIMENSIONAL INTEGRATIVE TREATMENT FOR GPPD

Pain management

Sex education and counselling

Psychotherapy, Hypnotherapy

Systemic vaginal desensitisation

Botox

SYSTEMIC VAGINAL DESENSITIZATION

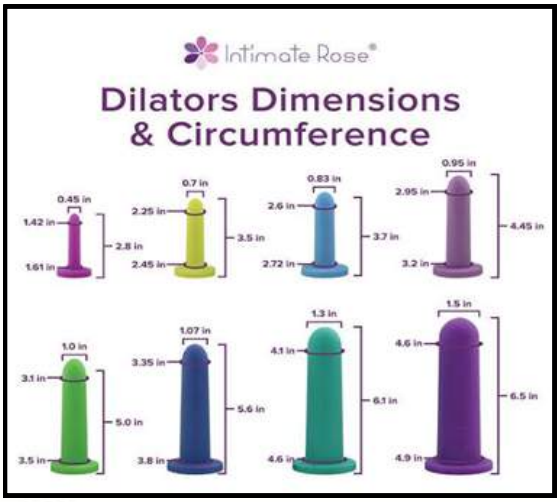
Desensitization using dilators is most recommended treatment for vaginismus

Dilators come in various sizes (19mm – 35mm) and different materials

Vaginal penetration exercises by patient or in presence of therapist or partner

It results in improvement of sexual distress, coital fear, pain and ability to have intercourse.

VAGINAL TRAINERS



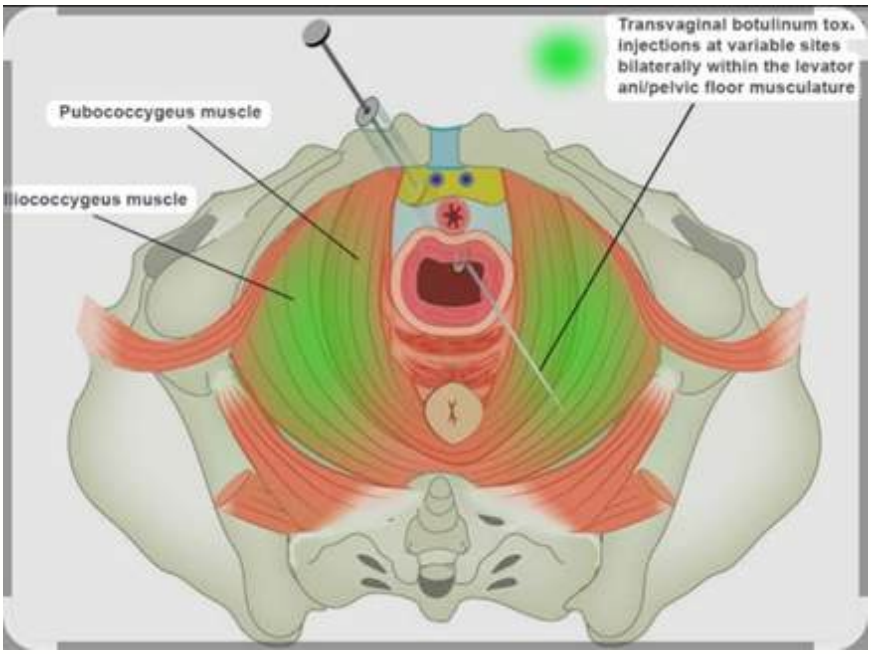
BOTOX

For refractory cases of vaginismus and dyspareunia.

In vaginismus, it relaxes the hypertonic pelvic floor muscles reducing involuntary spasms.

In dyspareunia botox reduces pelvic muscle overactivity, myofascial trigger points and even neuropathic pain components resulting in painless penetration.

50 -130 UNITS of BOTOX (Ona-botulinum toxin A) is injected in levator ani muscle especially the pubococcygeus and puborectalis.



Effect lasts for 3-6 months with potential for lasting behavioural improvement when combined with counselling and pelvic floor therapy.

Pelvic Floor Exercises

Pelvic Floor electrical stimulation (PFES) combined with pelvic floor muscle training (PFMT).

FEMALE ORGASMIC DISORDERS

Frequency: Orgasm with diminished frequency or is absent(anorgasmia)
Intensity: Orgasm with less intensity (muted orgasm)
Timing: Orgasm occurs too late (delayed orgasm) or too soon (premature orgasm) than desired.
Pleasure: Orgasm with absent or decreased pleasure (Anhedonia orgasm, pleasure dissociative orgasm).

THERAPEUTIC OPTION

Sex Counselling & Supportive Psychotherapy

Behaviour Modification Therapy - Directed masturbation is a structured, therapist guided behavioural technique to increase sexual self-awareness.

Training sessions usually include 4-16 weekly therapy sessions.

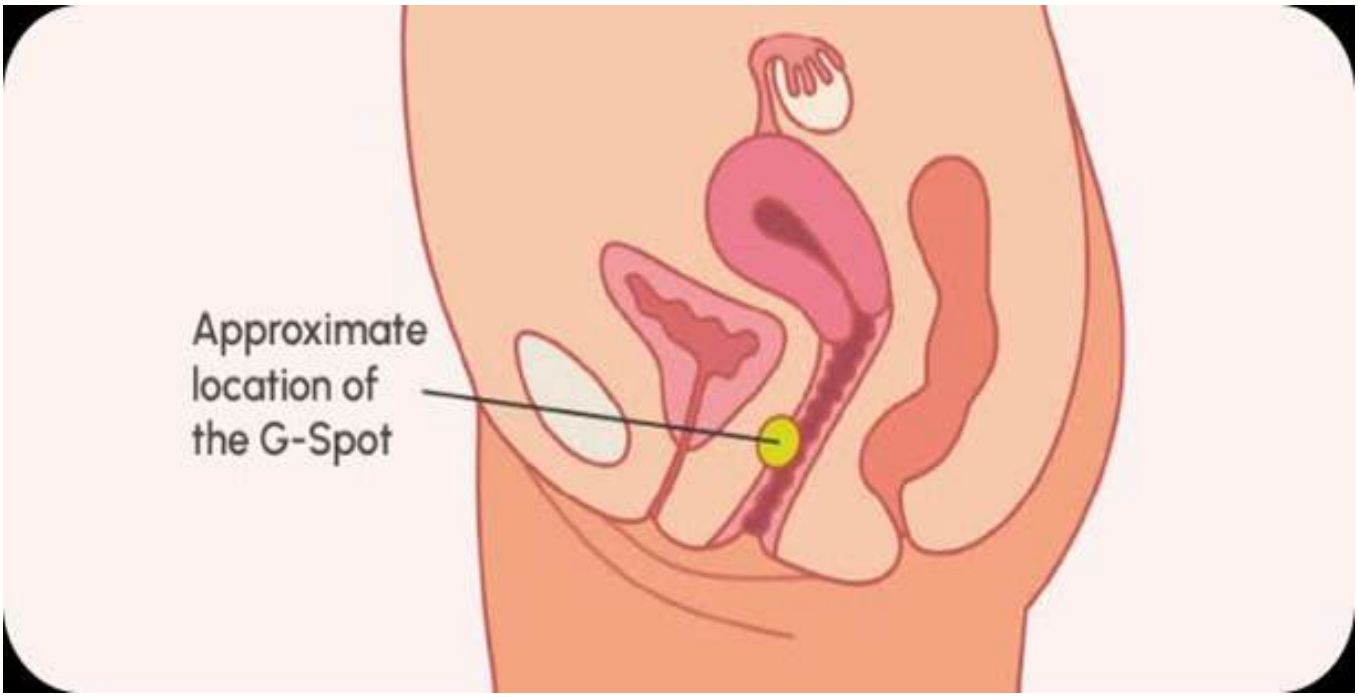
Sex & Marital Therapy

Clitoral devices, Vibrators & Dildos
Eros (Clitoral Device)

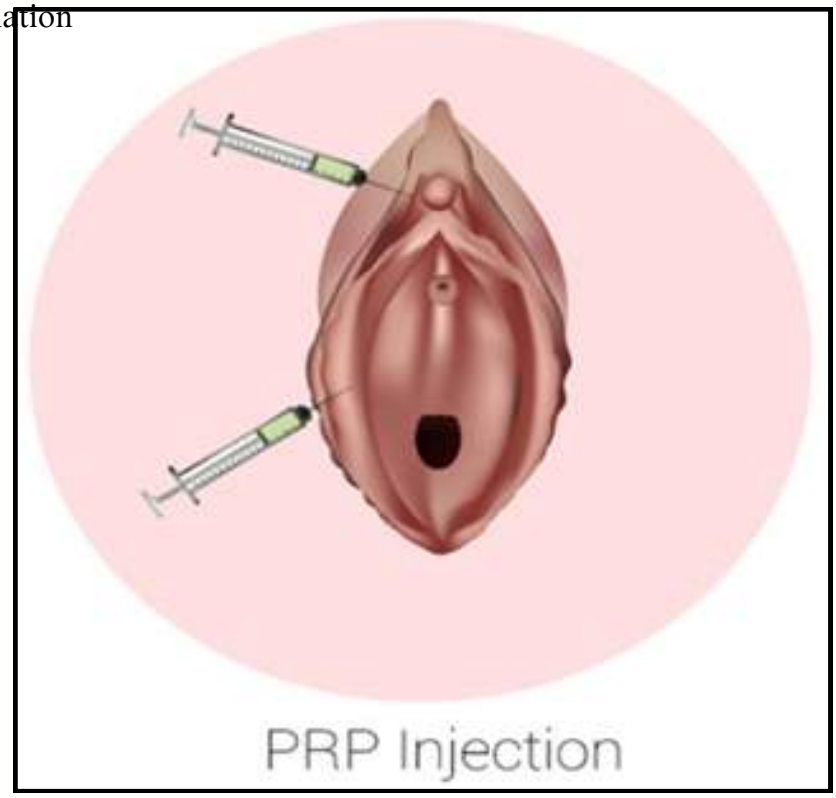
Eros Clitoral devices

Vibrators & Dildos

G-Shot : G-Spot Amplification by injecting hyaluronan a collagen based fiber.



O-Shot : Injection of Platelet Rich Plasma (PRP) into Clitoris & upper vaginal wall which helps in vaginal rejuvenation



FSD IN MENOPAUSAL WOMEN

In postmenopausal women Sexual problems can be accentuated by genito urinary syndrome (GSM) characterised by vulvovaginal atrophy, atrophic vaginitis, and lower urinary tract problems secondary to declining estrogen levels.

TREATMENT

- Life style modification and psychosexual therapy
- Pelvic floor electrical stimulation (PFES) combined with pelvic floor muscle training (PFMT) can improve both pelvic floor function and sexual function in women with sexual dysfunction and having stress urinary incontinence (SUI). **(Ref. 04)**
- Nonhormonal therapy: Lubricants and moisturisers
- Hormonal therapy: Vaginal Estrogens, DHEA, Tibolone
- Other therapies: Laser therapy, PRP as regenerative therapy for vaginal mucosa.

VAGINAL ESTROGENS

Topical medication used to relieve vaginal dryness, itching, burning, as well as urinary symptoms.
Dose: Estradiol vaginal cream 0.625mg/gm 2-4gms daily for 1-2 weeks, then tapered to 1gm 1-3 times per week as maintenance.

MOISTURISERS

Moisturisers retain and accumulate water which is released locally resulting in increased hydration.
Provides quick relief to local symptoms and benefit lasts for 2-3 days

LUBRICANTS: Lubricants are based on water, silicon and oils designed to reduce friction during coitus and help dyspareunia.

HORMONES:

- Estrogen, HRT, Tibolone
- Androgens-Testosterone, DHEA
- Estrogen Testosterone combined treatment

ESTROGENS:

Most effective in peri and postmenopausal women, cases of surgical menopause with hypoestrogenism.
It improves vaginal atrophy, dryness and pain and improves arousal and orgasm.
Local vaginal estrogen, Transdermal patches, oral estrogens and vaginal rings are available.

TESTOSTERONE:

Testosterone therapy is evidence-based treatment for peri and postmenopausal women with HSDD.
Transdermal patches delivering 300mcg/day has been consistently reported to be effective in many studies.
Testosterone gel 1% w/w
(Guidelines issued by ISSWSH: International Society for the Study of Women's Sexual Health Co-authored by Parish SJ, Simon JA, Davis SR, et al.) & **(Ref. 05)**

DHEA

Metabolized into testosterone
Dose: 100mg/day

COMBINED THERAPY:

Estrogen + Testosterone: Enhances libido and orgasm in hypoactive women.
Estrogen + PDE5 inhibitors: Synergistic in selected cases

TIBOLONE

Tibolone is a synthetic steroid with estrogenic, progestogenic and androgenic properties, recommended as HRT for postmenopausal women with therapeutic benefits in sexual dysfunction.

Mode of action

1.Improves libido
2.Acts on hypothalamus and limbic system improving mood and sexual motivation.
3.Enhances vaginal health by restoring vaginal epithelium, improving lubrication and reducing dyspareunia.
4.Relief of menopausal symptoms like hot flashes and night sweats overall improve quality of life including sexual function.

CONCLUSION :-

Female sexual dysfunction is a multifaceted condition that requires sensitive and individualized care.

Possible causes of FSD are diverse and overlapping, and the initial etiology is sometimes an enormous challenge to discern.

Management includes psychotherapy, medication review, hormone therapy and lifestyle changes. Open dialogue and multidisciplinary care are critical to successful outcomes.

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Telepsychiatry and Digital Therapeutics for Women's Mental Health

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DEFINITION

TELEMEDICINE 'The delivery of health care services, where distance is a critical factor, by all health care professionals using information and communication technologies for the exchange of valid information for diagnosis, treatment and prevention of disease and injuries, research and evaluation, and for the continuing education of health care providers, all in the interests of advancing the health of individuals and their communities.'

TELEHEALTH 'The delivery and facilitation of health and health-related services including medical care, provider and patient education, health information services, and self-care via telecommunications and digital communication technologies.'

INTRODUCTION :

Telemedicine which evolved in a big way during COVID pandemic has now remained in present times to play a crucial role in health delivery by increasing the reach of health professional to far and wide corners. Telemedicine replacing clinical medicine is a dream of distant future, but it definitely will prove as a useful adjunct to support patients through timely treatment especially in case of mental health.

Mental Health in women is often a neglected issue with many women in distant areas continuing to suffer in want of medical attention. This can be attributed to various social, religious and cultural taboos which prevent them from coming out with their mental problems and to seek mental health. Telemedicine can be a boon to these women by providing them with consultation within the confines of their rooms. Interactive videoconferencing as a form of telemedicine has become a critical tool in the delivery of mental health care. It has demonstrated its ability to increase accessibility and quality of care, and in some situations it has proved to do so more effectively than face to face treatment. Telemedicine in Women mental health will be discussed under following headings

Emrging role of Mental Health Telehealth

By providing flexible and accessible mental health services telemedicine has the potential to bridge the gap between the high demand for mental health services and the inadequate number of providers available.

Remote Therapy Sessions

India has a wide geographical variety and cultural and regional practices which may prevent women from seeking mental health solutions. Telehealth and mental health solutions enable professionals to conduct therapy sessions remotely. Such flexibility benefits individuals in rural areas, where Videoconferencing platforms can be used for individual, group, or family therapy sessions, removing barriers such as distance and transportation issues.

Crisis Intervention & Suicide Prevention

Telemedicine has emerged as a powerful tool for crisis intervention and suicide prevention, by enabling support to individuals through real-time video or audio consultations. This ensures identification of high risk women, gives them privacy , anonymity and confidentiality for seeking help, ensures timely interventions, thorough risk assessments, and referrals.

Virtual Support Groups

Online platforms can serve as a place where people with similar health concerns can bond together, learn coping strategies, and receive professional help. These groups are epecially helpful for individuals who do not interact much and have limited access to in-person support services. They also ensure anonymity, which most people with mental health issues value above all.

Telemonitoring for Mental Health Conditions

Mental health professionals can remotely monitor chronic conditions, symptoms, medication adherence, and can provide extra care if needed.

Multi-Disciplinary Consultations

Many doctors can collaborate and discuss in a single setting to bring about a holistic improvement in patient.

Psychoeducation

Mental health education can be provided to a wider reach of audience through workshops, and digital resources. As a result, patients will better understand their conditions and know how to manage them or when to contact a professional. This also helps to remove social stigma attached with mental health.

Regulation of Telemedicine practices:

There always have been concerns regarding the dangers of telemedicine and how to prevent them. Lack of clear guidelines has created significant ambiguity for registered medical professionals, raising doubts on the practice of telemedicine. The 2018 judgement of the Hon'ble High Court of Bombay had created uncertainty about the place and legitimacy of telemedicine because an appropriate framework does not exist. In India, till now there was no legislation or guidelines on the practice of telemedicine, through video, phone, Internet based platforms (web/chat/apps etc). The existing provisions under the Indian Medical Council Act, 1956, the Indian Medical Council (Professional Conduct, Etiquette and Ethics Regulation 2002),

Drugs &Cosmetics Act, 1940 and Rules 1945, Clinical Establishment (Registration and Regulation) Act, 2010, Information Technology Act, 2000 and the Information Technology (Reasonable Security Practices and Procedures and Sensitive Personal Data or Information) Rules 2011 primarily govern the practice of medicine and information technology. Gaps in legislation and the uncertainty of rules pose a risk for both the doctors and their patients. There are some countries that have put in legislative measures and some countries, which follow no legislative measures such as guidelines to practice telemedicine. In some countries guidelines are treated as professional norms that need to be followed by medical practitioners[1].Government of India provides guidelines of Telemedicine on Ministry of Health & Family Welfare site.

Scope of practice: Care should be taken to provide quality Tele mental health services by the providers by being up-to-date on evolving technologies, policies and Research. Standard-of-care delivered through telemedicine should be considered equivalent to in-person care . Care should be taken and standards set for Prescribing controlled substances. Informed consent at the start of session and maintenance of appropriate recording / documents after informing the patient should be done.

Standard Operating Procedures/Protocols

Before start of telemental health services, any provider or organization should work upon a Standard Operating Procedures and Protocols that should include specification for clinical, administrative, emergencies, communication and technical rules along with other things imperative for providing teleconsultation. All the healthcare providers should have proper training and medical license for the same. Regular quality checks along with feedback from patients should provide impetus for regular improvement.

Patient–provider identification

All persons at both sites of the videoconference shall be identified to all participants at the beginning of a telemental health session. Permission from the patient should not be required if safety concerns mandate the presence of another individual or if the patient is being legally detained. Professionals shall maintain both technical and clinical competence in the management of mental health emergencies. Provisions for management of mental health emergencies shall be included in any telemental health procedure or protocol.

Clinically supervised settings

Clinically supervised settings are patient locations where other medical or support staff are available in real time to support the telemental health sessions.

Clinically unsupervised settings : In instances wherein the mental health provider is providing services to patients in settings without clinical staff immediately available. These are more challenging settings

STRENGTHS AND LIMITATIONS OF VARIOUS MODES OF COMMUNICATION:
VIDEO: Telemedicine facility, Apps, Video on chat platforms, Facetime etc.

Advantages: Closest to an in person-consult, real time interaction · Patient identification is easier · RMP can see the patient and discuss with the caregiver · Visual cues can be perceived · Inspection of patient can be carried out ·

Limitations: Is dependent on high quality internet connection at both ends, else will lead to a sub optimal exchange of information · Since there is a possibility of abuse/ misuse, ensuring privacy of patients in video consults is extremely important
AUDIO: Phone, VOIP, Apps etc.

Advantages: Convenient and fast · Unlimited reach · Suitable for urgent cases · No separate infrastructure required · Privacy ensured · Real-time interaction.

Limitations: Non-verbal cues may be missed · Not suitable for conditions that require a visual inspection (e.g. skin, eye or tongue examination), or physical touch · Patient identification needs to be clearer, greater chance of imposters representing the real patient

TEXT BASED: Specialized Chat based Telemedicine Smartphone Apps, SMS, Websites,

Advantages: Convenient and quick · Documentation & Identification may be an integral feature of the platform · Suitable for urgent cases, or follow-ups, second opinions provided RMP has enough context from other sources,

Limitation: Besides the visual and physical touch, text-based interactions also miss the verbal cues · Difficult to establish rapport with the patient.

Challenges of Telehealth and Mental Health Implementation Privacy
Robust security measures and education to providers and patients should be done to protect their privacy

Client Engagement: During the Teleconsultation any disturbance from provider or patients side reduces the quality of sessions

Negative Impact on Providers and their training
Providers may experience fatigue and burnout by constantly being in touch with patients.

Technological Barriers

Conclusion: While telemedicine for women mental health is a promising avenue bridging the gap of unmet need of mental health in women care should be taken to draft clear rules to avoid challenges which may crop up later by improper use of telemedicine.

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14 Emergency Mental Health: Managing Acute Psychosis or Suicidality in the Labor Ward

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Psychosis is a disorder of thinking and perception, where typically people do not describe their symptoms to a mental disorder.

The one-year prevalence of non-organic psychosis is 4 .5 per 1000 community residents.[1]

The perinatal period encompassing pregnancy and the postpartum phase is a particularly vulnerable time for the onset or recurrence of psychiatric illnesses. Antenatal and postnatal anxiety disorder are seen in approximately 15.2% of pregnant women and 9.6% of women following childbirth.[2]

Psychiatric emergencies such as psychosis and suicidal ideation that arise during pregnancy and postpartum require immediate clinical attention. Prompt recognition and intervention are essential to prevent adverse outcomes for both the mother and the infant.

Suicidal ideation occurs in an estimated 5–14% of perinatal women seeking mental health services.[3]
Suicide risk factors during this period include a history of previous attempts, sudden cessation of psychotropic medications during pregnancy, postpartum, intimate partner violence, and stillbirth.

1. Rapid Tranquilization Protocols:

Rapid tranquilization is used in psychiatric settings to quickly manage acute agitation, aggression, or violent behaviour when a patient poses an immediate risk to themselves, or others and de-escalation techniques have failed.

Objectives of Rapid tranquilization are to ensure the safety of the patient and others, calm the patient without over sedation and allow for psychiatric assessment and further treatment Key Principles for Rapid tranquilization is to use the least restrictive intervention first ,start with oral medication ,use intramuscular (IM) injections only if the patient refuses or oral administration is not feasible and Choose medications with rapid onset, short half-life, and minimal side effects

·First-Line Oral Options for Rapid tranquilization

- Lorazepam (1–2 mg)
- Olanzapine (5–10 mg)
- Risperidone (1–2 mg)

·IM Injection Options for Rapid tranquilization

- **Lorazepam 1–2 mg IM**
- **Haloperidol 2.5–10 mg IM** (Must be co-administered with an anticholinergic like Promethazine 25–50 mg IM to prevent extrapyramidal side effects)
- **Olanzapine 10 mg IM** (Avoid co-administration with benzodiazepines due to risk of cardiorespiratory depression)
- **Midazolam 2.5–5 mg IM**

a) Monitoring and Safety:

Antipsychotic medications should be prescribed at the lowest effective dose . When sedation is necessary, benzodiazepines are generally safer than antipsychotics and should be used as needed. Selecting a highly sedating antipsychotic early in treatment can hinder timely discharge .

Continuous monitoring of vital signs, respiratory function, level of consciousness, and hydration should be done .The patient should reassess frequently to determine the need for additional medication and proper documentation of all interventions: time, dose, route, rationale, and response should be done. And resuscitation equipment along with staff trained in airway management should be readily available.

b) Post-Tranquilization Care:

Rapid tranquillization of patients with psychosis, needs monitoring for side effects and complications. Typical antipsychotics are known to cause extrapyramidal side effects and are associated with stronger anticholinergic effects (e.g. dry mouth, tachycardia, urinary retention) and antiadrenergic effects (e.g. postural hypotension, impotence)

2. Safe Restraint in acute Psychosis

Restraint refers to any method—physical, chemical, environmental, or psychological—used to limit a person's movement, activity, or decision-making ability to prevent harm to self or others

Principles for Safe Restraint is to use restraint as Last Resort when de-escalation techniques and less restrictive interventions fail, and there is an immediate risk to the patient or others. Legal & Ethical Compliance like institutional policies, MHCA 2017, must be followed. It should be used with the minimum level of force and for the shortest possible duration. The patient's dignity, privacy, and rights should be maintained throughout the process.

a) Types of Restraint:

- **Physical Restraint includes** manual holding or use of mechanical devices to limit movement. It should be applied only by trained staff and continuous monitoring should be done whenever used.
- **Chemical Restraint includes** the use of sedative medications (e.g., lorazepam, haloperidol) to manage aggression or agitation.
- **Environmental Restraint includes** putting the patient in locked doors or seclusion rooms. It should be used only with proper justification and monitoring.
- **Psychological Restraint includes** Indirect limitation through threats or manipulation. It is ethically discouraged to use this method of restraint.

b) Procedure for Safe Physical Restraint:

- **Before Restraint**: All attempts for verbal de-escalation and calming techniques should be use .If the patient are partially cooperative, the patients should be explained. There should always be team support (minimum 4–5 trained personnel).
- **During Restraint**: The restraint should be applied horizontally, not face-down (to avoid positional asphyxia).Patient's head and limbs should be protected ,.the airway, breathing, circulation, and mental status should be monitor continuously. Document the patient's condition and the time of initiation accurately.
- **Monitoring after Restraint**: The patient should be reassessing every 10–15 minutes. All the restraint should be removed as soon as the patient is calm and no longer poses a threat. Debriefing for the patient and staff should be done and complete documentation: type, reason, duration, observations, and complications should be maintained. The nominated representative (NR) of the patient should be notified as per MHCA 2017 guidelines.

c**) Training & Institutional Responsibility:**

- Regular **training in de-escalation, safe restraint techniques,** and **mental health laws** are mandatory.
- Every mental health facility must have a **restraint policy**, audit usage regularly, and review incidents to reduce future occurrences.

3**. The Mental Healthcare Act (MHCA) of 2017:**

"The Mental Healthcare Act (MHCA) of 2017, enacted in India, provides clear guidelines regarding the use of restraint, emphasizing that treatment should be delivered in the least restrictive setting. Restraint is to be used only when there is an immediate risk of harm to the individual or others. The Act also mandates that the medical officer or mental health professional overseeing care must ensure proper documentation of the type, extent, and duration of any restraint used. Additionally, the MHCA recommends regular updates regarding the individual's nominated representative to ensure that rights and responsibilities are upheld."

4. Conclusion:

While the use of rapid tranquilization and restraint may be necessary in acute psychotic episodes, particularly during the perinatal period, they must always be administered with the highest standards of clinical judgment, ethical responsibility, and patient dignity. Ongoing training, robust monitoring, and compliance with mental health legislation are crucial in ensuring safe and effective care.

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15 Ethical and Medicolegal Aspects of Prescribing Psychotropics in Pregnancy

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Introduction

The management of mental illness during pregnancy presents one of the most complex challenges in modern medicine. Pregnancy itself is a period of profound physiological and psychological change. For a significant number of women, it coincides with the onset or continuation of psychiatric disorders. Estimates suggest that up to 20% of women experience some form of mental health problem during pregnancy or in the first year postpartum. When these conditions, such as depression, anxiety disorders, bipolar disorder or schizophrenia are severe enough to warrant pharmacological intervention, clinicians and patients alike are faced with a difficult dilemma: the need to ensure maternal mental health versus the imperative to protect the developing foetus from potential harm.

The decision to prescribe, continue or discontinue psychotropic medication during pregnancy is not merely a clinical one; it is deeply embedded in a matrix of ethical principles and medicolegal responsibilities. The clinician must navigate the often-conflicting duties of beneficence and non-maleficence towards both the mother and the foetus, uphold the mother's autonomy in decision-making and ensure justice in access to appropriate care. Simultaneously, the medicolegal landscape demands meticulous documentation, adherence to evolving standards of care and a thorough informed consent process to mitigate the risk of liability.

This chapter will explore the intricate ethical and medicolegal aspects of prescribing psychotropic medications in pregnancy. It will examine the core ethical principles that guide clinical decision-making, the critical components of informed consent, the prevailing medicolegal considerations including standard of care and liability and the importance of a collaborative, individualized approach to care in this vulnerable population.

I. Overview of Psychotropic Use in Pregnancy

Psychotropics encompass a wide range of drug classes, including antidepressants, antipsychotics, mood stabilizers, anxiolytics and stimulants. These medications are often essential in treating psychiatric conditions such as major depressive disorder, bipolar disorder, schizophrenia and anxiety disorders.
However, prescribing during pregnancy is complicated by:

- **Pharmacokinetic changes** affecting drug metabolism

- **Teratogenic risks,** especially in the first trimester

Neonatal adaptation syndromes or withdrawal symptoms

- **Long-term neurodevelopmental concerns**

Given these complexities, the decision to prescribe must go beyond clinical judgment and address ethical, legal, and societal factors.

II. Ethical Framework for Prescribing in Pregnancy

The ethical considerations surrounding psychotropic medication use in pregnancy revolve around balancing the well-being of the mother with the safety of the developing foetus. Four core bioethical principles provide a framework for navigating these complex decisions:

1. **Beneficence (Doing Good):** This principle obligates the clinician to act in the best interests of both the mother and the foetus. For the mother, this means alleviating the suffering and functional impairment caused by her mental illness, which, if untreated, can lead to poor self-care, malnutrition, substance use and an increased risk of obstetric complications, including preeclampsia and preterm birth. For the foetus, maternal mental stability is crucial for a healthy intrauterine environment and optimal neurodevelopment. Untreated severe maternal mental illness can lead to poor foetal growth, prematurity and adverse postnatal developmental outcomes.

2. **Non-Maleficence (Doing No Harm):** This principle requires clinicians to avoid causing harm. In the context of prescribing during pregnancy, this primarily relates to minimizing foetal exposure to medications that could be teratogenic (causing congenital malformations), lead to perinatal syndromes (e.g., neonatal adaptation syndrome) or have long-term adverse neurodevelopmental consequences. However, non-maleficence also applies to the potential harm of not treating the mother's mental illness, which can have deleterious effects on both mother and child.

3. **Autonomy (Respect for Persons):** This principle emphasizes the patient's right to self-determination and to make informed decisions about her own body and medical care. Pregnant women have the right to be fully informed about their condition, the proposed treatments (including medications), the potential risks and benefits to themselves and their foetus and available alternatives. The clinician's role is to provide comprehensive information and support the patient in making a decision that aligns with her values and preferences, even if that decision involves refusing recommended treatment. Forced treatment is ethically and legally untenable in most circumstances.

4. **Justice (Fairness):** This principle pertains to the fair distribution of healthcare resources and the equitable treatment of all patients. Pregnant women with mental illness should have access to specialized perinatal mental health services, regardless of their socioeconomic status, race or geographic location. Justice also implies avoiding stigmatization and ensuring that these women receive compassionate and evidence-based care.

The Ethical Dilemma: Balancing Risks and Benefits The central ethical challenge lies in balancing these principles. Often, what benefits the mother (e.g. effective medication) may pose a potential risk to the foetus and vice versa. The decision-making process must involve a careful, individualized weighing of the risks of maternal mental illness if left untreated against the potential risks of medication exposure to the foetus. There is rarely a "no-risk" option. Discontinuing medication may lead to maternal relapse, which itself carries significant risks for both mother and child. Conversely, continuing medication may expose the foetus to potential adverse effects. This delicate balance requires ongoing dialogue and shared decision-making.

The Ethics of Non-Treatment It is crucial to recognize that withholding necessary psychotropic medication can also be a source of harm. Severe maternal mental illness can impair a mother's ability to care for herself, attend prenatal appointments, bond with her infant and provide a safe and nurturing environment. The stress associated with untreated mental illness can also have direct physiological impacts on foetal development. Therefore, a decision not to treat pharmacologically must be an active one, made after careful consideration of non-pharmacological alternatives and the potential consequences of untreated illness.

III. Informed Consent and Shared Decision-Making

Obtaining informed consent is a cornerstone of ethical prescribing. It is not a mere administrative process but a dynamic, interactive conversation that involves:

- **Disclosure** of diagnosis, treatment rationale, drug safety categories and potential foetal risks.
- **Understanding**: Ensuring the patient comprehends complex information, often using visual aids or simplified language.
- **Voluntariness**: Allowing the patient to make decisions without coercion.
- **Capacity**: Ensuring the patient is cognitively and emotionally capable of making informed decisions.

Elements of Comprehensive Informed Consent: The discussion with the patient (and ideally her partner or family, if she consents) should cover:

- **Diagnosis and Natural Course of Illness**: A clear explanation of the mother's mental health condition and the likely course of the illness with and without treatment during pregnancy and the postpartum period.

- **Risks of Untreated Maternal Illness**: Detailed information about the potential adverse effects of the untreated mental disorder on the mother (e.g. relapse, worsening symptoms, suicidality, functional impairment, obstetric complications) and on the foetus/infant (e.g. prematurity, low birth weight, impaired bonding, developmental issues).

- **Proposed Pharmacological Treatment:**
  - Name of the medication, dosage and rationale for its selection.

  Known and Potential Risks of Medication Exposure to the Foetus: This is a critical component and must be discussed transparently.

- **Teratogenicity:** Risk of structural malformations, particularly with first-trimester exposure. Specific risks associated with the drug class (e.g., valproate and neural tube defects, lithium and Ebstein's anomaly, though recent data suggest lower risk for lithium than previously thought).

- **Perinatal Syndromes:** Risks of neonatal adaptation syndrome (e.g. jitteriness, respiratory issues, poor feeding) or withdrawal symptoms, especially with third-trimester exposure to SSRIs, SNRIs, benzodiazepines and some antipsychotics.

- **Long-Term Neurodevelopmental Outcomes:** This is an area of ongoing research and often considerable uncertainty. Available data on potential impacts on cognitive function, behaviour and risk of psychiatric disorders in offspring should be discussed honestly, acknowledging limitations in current knowledge.

- **Potential Benefits of Medication for the Mother (and indirectly the Foetus)**: Alleviation of symptoms, improved functioning, prevention of relapse and creation of a more stable environment for the developing foetus and newborn.

- **Alternatives to Pharmacotherapy**: Discussion of non-pharmacological interventions such as psychotherapy (e.g., CBT, IPT), lifestyle modifications and social support. The feasibility and likely efficacy of these alternatives as sole treatments or adjuncts should be considered.

- **Risks and Benefits of Discontinuing or Switching Medication**: If the patient is already on medication, the risks of relapse associated with stopping or changing the regimen must be thoroughly explored.

- **Uncertainty**: It is vital to acknowledge the limits of current scientific knowledge. For many psychotropic medications, data on long-term foetal outcomes are incomplete.

- **Patient's Right to Refuse or Withdraw Consent**: The patient must understand that she can refuse treatment or withdraw consent at any time without prejudice to her future care.

Shared decision-making enhances patient engagement, reduces decisional regret and respects the pregnant woman’s role as a moral agent.

IV. Medicolegal Considerations

The prescription of psychotropic medication during pregnancy carries significant medicolegal implications. Clinicians must be aware of their legal duties and potential liabilities. Key considerations include:

1. Standard of Care: The standard of care is generally defined as what a reasonably prudent psychiatrist (or other prescribing clinician) with similar training and experience would do in the same or similar circumstances. This standard is constantly evolving with new research and updated clinical guidelines (e.g. from organizations like the American Psychiatric Association or the American College of Obstetricians and Gynaecologists). Key aspects include:

- Accurate diagnosis and comprehensive risk assessment.
- Thorough discussion of risks, benefits and alternatives (informed consent).
- Individualized treatment planning.
- Use of the lowest effective dose for the shortest necessary duration.
- Preference for monotherapy if possible.
- Consultation with specialists (e.g. obstetrician, perinatologist, maternal-fetal medicine specialist) when appropriate.
- Regular monitoring of both mother and foetus.

2. Documentation: The Cornerstone of Medicolegal Defence: Meticulous and contemporaneous documentation is paramount. The medical record should clearly reflect:

- The patient's psychiatric history and current symptoms.
- The rationale for any treatment decision (initiating, continuing, discontinuing or withholding medication).
- The details of the informed consent discussion, including the specific risks, benefits and alternatives discussed and information provided (e.g. pamphlets, websites).
- The patient's understanding and her expressed wishes and decisions.
- Any consultations sought and their outcomes.
- Follow-up plans and monitoring. Adequate documentation serves as the primary evidence that the clinician acted reasonably and obtained informed consent.

3. Liability and Potential Pitfalls (Risk of Litigation): Potential areas for litigation include:

- **Failure to diagnose or treat**: If untreated maternal mental illness leads to adverse outcomes for the mother or child.
- **Failure to warn/Inadequate informed consent**: If a child is born with a defect or experiences adverse effects potentially linked to medication, and the mother claims she was not adequately informed of the risks.
- **Inappropriate prescribing**: Prescribing contraindicated medications (e.g. valproate without compelling reasons and full consent), incorrect dosage or failure to monitor appropriately. While "wrongful birth" (parents claim they would have avoided conception or terminated the pregnancy had they known the risk) or "wrongful life" (child claims they should not have been born) lawsuits are complex and vary by jurisdiction, they represent theoretical areas of liability.

4. Off-Label Prescribing: Many psychotropic medications are not specifically FDA-approved for use during pregnancy. While off-label prescribing is common and legal in medicine, it requires even greater diligence in terms of informed consent and documenting the rationale based on available evidence and clinical judgment.

National and international bodies provide guidance on psychotropic use in pregnancy, though drug classification systems vary:

- **FDA Categories (now replaced by the Pregnancy and Lactation Labeling Rule - PLLR)**: Replaced letter categories (A, B, C, D, X) with detailed narrative summaries of risks.
- **MHRA (UK)**: Issues safety alerts, e.g. on valproate use.
- **APA and ACOG Guidelines (USA)**: Joint guidelines on perinatal mental health.

Compliance with these evolving standards is essential for ethical and legal practice.

5. The Role of Practice Guidelines and Expert Consultation: Adherence to established practice guidelines can provide support for clinical decisions. Consulting with colleagues or specialists in perinatal psychiatry or maternal-fetal medicine can be invaluable, especially in complex cases and demonstrates a commitment to providing optimal care. Documenting these consultations is crucial.

6. Duty to the Mother vs. Duty to the Foetus

Legally, the primary duty of care is owed to the mother. However, as foetal rights gain recognition in certain jurisdictions, a physician may also be held accountable for preventable foetal injury. This dual duty can result in ethical conflict and legal ambiguity.

V. Specific Considerations for Psychotropic Classes

While a detailed review of each drug class is beyond this chapter's scope, key ethical and medicolegal sensitivities include:

- **Antidepressants (SSRIs, SNRIs)**: Generally considered to have a relatively lower risk of major teratogenicity, but concerns exist regarding potential perinatal adaptation syndrome and emerging data on long-term neurodevelopmental outcomes. Paroxetine has been associated with a slightly increased risk of cardiac malformations in some studies, warranting careful consideration.

- **Mood Stabilizers**: This class carries significant concerns.
  - **Valproate**: High risk of major congenital malformations (especially neural tube defects) and adverse neurodevelopmental outcomes. Its use in women of childbearing potential is highly restricted and requires extraordinary justification and informed consent.
  - **Lithium**: Previously associated with a higher risk of Ebstein's anomaly but more recent data suggest the absolute risk is lower than once thought, though still elevated above baseline. Requires careful monitoring of maternal and foetal levels.
  - **Lamotrigine**: Appears to be one of the safer mood stabilizers in pregnancy regarding teratogenicity, though dose adjustments are often needed due to altered pharmacokinetics. Risk of cleft lip/palate has been debated but appears low.

- **Antipsychotics:**
  - First-generation antipsychotics (FGAs): Generally less data available compared to SGAs.
  - Second-generation antipsychotics (SGAs): Data are accumulating. Some concerns about metabolic effects (gestational diabetes, excessive weight gain) in the mother and potential for neonatal adaptation syndrome. Overall risk of major teratogenicity appears low for most.

Anxiolytics (Benzodiazepines): Potential association with oral clefts if used in the first trimester. Risk of neonatal sedation, hypotonia ("floppy infant syndrome"), and withdrawal symptoms with third-trimester use. Should be used sparingly at the lowest effective dose for the shortest period possible.

VI. Case Examples Illustrating Ethical and Legal Challenges

Case 1: Bipolar Disorder and Valproate Use

A woman with treatment-resistant bipolar disorder stabilized on valproate plans to conceive. Clinician must balance:

- Risks of foetal neural tube defects (especially in the first trimester)
- Risk of relapse and hospitalization if switched to a less effective agent
- Need for folic acid supplementation and foetal anomaly scans

Approach: Shared decision-making, preconception counselling and transition to safer alternatives if feasible.

Case 2: Major Depression and SSRI Use

A pregnant woman with severe depression benefits from sertraline but fears harming her baby. Discontinuation worsens symptoms.

Approach: Discussion of relative risks (e.g. neonatal adaptation syndrome vs. risk of suicide), reassurance and close monitoring.

Case 3: Litigation After Congenital Malformation

A baby is born with cardiac malformation. The mother had taken lithium but claims she was not informed of risks.

Lessons: Highlights the need for detailed informed consent, documentation and risk-benefit analysis.

VII. Risk Mitigation Strategies for Clinicians

To navigate ethical and medicolegal complexities, clinicians should adopt the following strategies:

1. Preconception Counselling

Engage women of childbearing age on psychotropics in discussions about pregnancy planning. Adjust medications in advance when appropriate.

2. Interdisciplinary Collaboration

Work with obstetricians, paediatricians, psychiatrics and pharmacologists to provide coordinated care. Multidisciplinary case conferences can improve outcomes.

3. Continuing Medical Education

Stay updated on perinatal pharmacology and legal obligations. Participate in training modules and workshops.

4. Use of Decision Aids

Employ decision aids and patient handouts to facilitate understanding and promote informed choices.

5. Regular Review and Monitoring

Monitor maternal mental state, foetal development and medication side effects through regular follow-up and laboratory assessments.

VIII. Ethical Dilemmas and Emerging Debates

Several unresolved ethical questions continue to challenge perinatal mental health care:

- Should women with severe mental illness be allowed to become pregnant while on teratogenic medications?
- What if a woman refuses necessary treatment due to fear of harming her baby?
- Can a clinician be held liable for not preventing pregnancy in women taking high-risk psychotropics? There is a growing call for societal and legal frameworks to better support pregnant women with mental illness including access to specialist perinatal mental health services.

Conclusion

Prescribing psychotropics during pregnancy is a high-stakes decision that demands ethical sensitivity, legal awareness and clinical acumen. While protecting foetal health is vital, the rights and well-being of the mother must not be overlooked. Informed consent, shared decision-making and interdisciplinary collaboration form the pillars of ethically sound and legally defensible practice. By prioritizing both maternal and foetal outcomes, clinicians can navigate this complex terrain with compassion, competence and confidence.

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16 Workplace Mental Health for Women Doctors and Health-care Workers

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1. Why this chapter?

Hospitals are busy places. Long hours, emergency calls at odd times, endless paperwork and several patients waiting outside each door are now routine. A woman doctor works in the same set-up but also carries extra expectations from family and society: looking after children, elders, household decisions and still smiling over everything else. When these loads collide, mental health begins to suffer. Many of us silently fight anxiety, disturbed sleep, chronic tiredness or a vague sadness that refuses to go away. Talking about mental health has become more common, yet asking for help can still feel risky—"What will my seniors think? Will the administration label me as 'weak'?" This chapter explores those concerns and offers system-level solutions.

2. Special pressures on Indian women doctors

Pressure point	What it looks like in daily life	Why it matters for mental health
Work–home balance	Night duty ends at 8 AM, school bus arrives at 8:15 AM, OPD starts at 9 AM. No breathing space.	Chronic fatigue, irritability and guilt about "never doing enough."
Gender expectations	"Will you manage an ICU shift when you are pregnant?" whispered during interviews.	Self-doubt, frustration, feeling judged for normal life stages.
Subtle bias	Senior calls male colleague "Doctor Saab," female colleague "Sister."	Daily micro-slights chip away at confidence.
Role overload	Teaching intern, counselling relatives, finishing EMR notes, arranging birthday cake at home.	Mind constantly on high alert; burnout risk increases.

Indian culture prizes family commitment, so women often hesitate to say "I need rest." Understanding these pressures is the first step to healthier workplaces.

3. A simple four-layer map

We borrowed Bronfenbrenner's Socio-Ecological Model and fitted it to hospital life in India. Think of four concentric circles:

1. **Microsystem – The immediate shift:** Ward noise, overcrowded casualty, blinking monitors, missed lunch.
2. **Mesosystem – The team:** Rotating rosters, ever-changing senior-junior mix, inside jokes that exclude newcomers.
3. **Exosystem – Hospital policies:** Duty roster, leave rules, appraisal forms, staff numbers.
4. **Macrosystem – Society and culture:** "Doctor means 24×7 service," commercialisation of care, preference for male authority figures.

If distress can start in any circle, healing must also work in every circle.

4. What we did

We spoke to fourteen doctors—consultants, postgraduate residents and casualty medical officers—in a government medical college and a private hospital. Semi-structured interviews were followed by shadowing: we walked beside them through eight-hour shifts, noting interruptions, patient loads and breaks. We kept listening until no fresh themes emerged.

5. Key findings

5.1 Microsystem – Hour-to-hour stress

Everything feels urgent. A single obstetric emergency can topple the entire OPD schedule. Resident doctors skip breakfast, answering 40 calls while pushing a trolley. Consultants stay back to re-check notes because "medico-legal risk hai." Continuous adrenaline drains emotional batteries. Sleep debt builds; mind refuses to switch off even at 2 AM.

5.2 Mesosystem – Team dynamics

Teams change every two months, so trust never settles. Junior doctors fear "looking dumb," so they stay quiet about doubts or early signs of depression. Gendered jokes—"You will get married and leave anyway"—go unchallenged. Where teams are kind, stress softens; where sarcasm rules, morale nosedives.

5.3 Exosystem – Organisational nuts and bolts

Duty rosters come late, making childcare plans impossible. Leave forms need four signatures, discouraging real holidays. Staffing gaps force over-time without extra pay. Private hospitals push "patient satisfaction scores," yet give no protected time for documentation. Such mismatches breed cynicism.

5.4 Macrosystem – The larger story

Popular media celebrates the "self-sacrificing doctor" who skips meals and still smiles. Hospitals adopt business metrics, so time with a sick old lady feels like "low productivity." Women doctors especially hear "You chose this profession; now adjust." The gap between calling and commerce hurts morale.

6. What already works

Doctors did mention pockets of relief:

- **Candid conversations:** Regular debrief meetings where juniors can say "I felt scared" without ridicule.
- **Employee Assistance Helplines**: Anonymous calls for counselling—used more after COVID-19.
- **Mental-health workshops**: Short sessions on recognising burnout, practical breathing exercises.
- **Scheduled tea breaks**: A 10-minute chai in peace sounds small, feels big.
- **Role-model seniors**: Consultants who leave on time, encourage leave and openly discuss therapy reduce stigma.

However, these measures succeed only when the wider system supports them.

7. Six leverage points for Indian hospitals

1. **Leadership that remembers people**: Administrators and senior clinicians must jointly review duty hours, simplify paperwork and add extra hands where case-load is high.
2. **Transparent rostering**: Publish duties one month in advance, honour off days and accommodate parenting duties without negative remarks.
3. **Safe reporting channels**: A quick online form to flag harassment or overwork, looked at by an independent cell.
4. **Mentorship ladders for women**: Pair juniors with seniors who have navigated maternity leave, flexible hours and career growth.
5. **Team huddles**: Five-minute start-of-shift check-ins—"Any concerns today?"—build psychological safety.
6. **Mindful physical spaces**: A small quiet room, proper chairs, clean washrooms and lockers say "We value you."

When these basics improve, yoga apps and resilience talks suddenly become effective rather than cosmetic.

8. Discussion – Shifting the gaze from individual to system

Research worldwide, including Australian and UK data, shows that job conditions—not personal weakness—explain most mental health problems among doctors [1-3]. In India, the dual pull of family duty and hospital duty exaggerates the strain. Asking each woman doctor to "be more resilient" misses the point. Instead, hospitals must redesign work so that ordinary human resilience is enough.

COVID-19 briefly made society clap for health-care workers, yet many doctors also faced violence or blame. That paradox underlines why supportive policy is essential. A doctor who is well-rested, listened to and respected will naturally deliver safer, kinder care.

9. Practical tips for individual doctors (while bigger change rolls in)

- Keep a "mini-break kit": dry fruit, water and headphones for a five-minute reset.
- Practise a two-line check with peers: "How are you really? / Anything I can do?"
- Note sleep hours like vital signs; act if average slips below six.
- Block one day per month as "personal admin day" for health check-ups, banking and rest.
- Save the helpline number on your phone before you need it.

These steps do not replace systemic reform, but they safeguard well-being today.

10. Conclusion

Indian women doctors stand at the cross-roads of professional duty and social expectation. Long shifts, bias, caregiving and a heroic medical culture push mental health to the margins. Our study, though small, echoes global evidence: problems appear at many layers—and so must remedies. Hospitals that publish fair rosters, ensure safe teams, upgrade basic facilities and celebrate balanced role-models will keep their doctors healthy. Healthy doctors mean safer patients and stronger institutions.

Mental health is not a luxury add-on; it is the oxygen mask that lets us treat others. Put it on first, then help the next person.

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