ACOG
The American College of Obstetricians and Gynecologists

Mental Health & IVF

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Science at the heart of medicine

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No conflicts

Learning Objectives

- Demonstrate knowledge of the mental health burdens during IVF
- Manage the mental health aspects to ensure successful IVF outcomes
- Integrate evidence based guidelines into the management of mental health during IVF

Mental Health & IVF- Background

- **Sexual and reproductive health rights are essential** for the progress of Sustainable Development Goals due to their association with gender equity, health, and well-being.
- Article 16 of the Human Rights Declaration states that “Men and women of full age, without any limitation due to race, nationality or religion, have the **right to marry and to found a family**”
- Assembly UG. Universal declaration of human rights. UN General Assembly. 1948;302(2):14–25.
- **Therefore, infertility should be considered a human rights issue, and factors such as availability and access to infertility treatment, including IVF, should be recognized as a human right.**
- Zegers-Hochschild F, Dickens BM, Dughman-Manzur S. Human rights to in vitro fertilization. Int J Gynaecol Obstet. 2013;123(1):86–9.

Mental Health: Background

- Mental health is as important as physical health (1).
- Without mental health there can be no true physical health (2).

- (1) Chisolm B. 1st Director General of WHO.
- (2) The WHO Comprehensive Mental Health action plan (2013-2030)

Mental Health & IVF

February 16, 2024

ACOG

Mission: To support our members to improve the lives of all people seeking obstetric and gynecologic care, their families and our communities.

Vision: An equitable world in which exceptional and respectful obstetric and gynecologic care is accessible to all.

Values: Excellence, Integrity, Respect, Equity, Accountability

ACOG

Sound health policy must always be science- and evidence-based, so that physicians can provide patients with factual, compassionate, and individualized care and counseling.
Politicians must never interfere in the patient-physician relationship or impose unjustified restrictions on medical practices.
ACOG advocates against legislation that undermines physicians' ability to practice medicine according to their professional judgement and medical training.

Iffath A. Hoskins, MD, FACOG
Minding Mental Health

GOAL: To enhance awareness of the prominent need for and role of appropriate mental health care in the lives of patients and health care professionals

The campaign focused on messaging around applicable initiatives, advocacy, publications, speaking events and awareness days

Messaging, graphics, content and a robust 12-month calendar of opportunities to engage and amplify these messages

Infertility

- Infertility is recognized as a global health problem by the World Health Organization
- Approximately 48 million couples and 186 million individuals live with infertility globally.
- Females contribute to approximately 55% of infertility cases
- Males contribute to approximately 40%.
- The remaining are unknown causes.
- Approximately 16% of reproductive-age women seek treatment for infertility each year

Mental Health & IVF

Infertility is associated with mental health disorders in women, even if a successful pregnancy resolves the infertility.

Mental Health & IVF

- IVF treatment experience is defined as a life crisis and infertility itself may be particularly devastating due to intrusive medical treatments, high financial costs, and uncertainty over treatment effects and results.

Mental Health & infertility

- growing body of literature shows that infertile women undergoing IVF treatment experience elevated levels of psychological distress.
- anxiety and depression are the most common (1)
- can result in significant adverse treatment outcomes (2)

1. Van den Broeck et al., 2010; Gdanska et al., 2017; Bai et al., 2019

2. Smeenk et al., 2001; Quant et al., 2013; Aimagambetova et al., 2020).

Social determinants of health (SDoH)affecting mental health in relation to infertility

- SDoH also determine healthcare utilization and adherence to treatment
- **WHO defines social determinants of health as "*non-medical factors that influence health outcomes.***
- *They are the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life. These forces and systems include economic policies and systems, development agendas, social norms, social policies and political systems*"
- This broad definition can include numerous non-clinical factors of health such as age, gender, ethnicity, education, income and social security, social support, food security, housing, job security, harmful alcohol consumption or tobacco addiction, etc.

Social determinants of mental health & infertility

- The mental health impact of infertility can vary based on individuals' social support, socio-economic status, and coping mechanisms.
- Collectively or independently, these social determinants of health (SDoH) can influence health outcomes

Women with infertility	Depression %	Anxiety %
Mid & Low income countries	44.03	54.02
High income countries	28.03	25.05

- Kiani Z, Simbar M, Hajian S, et al. Prevalence of anxiety symptoms in infertile women: a systematic review & meta analysis. Fertil Res Pract 2020;6(1):7

The social determinants of mental health disorders among women with infertility: a systematic review

- T Bagade, A G Mersha, T Majeed
- *BMC Women's Health* vol. 23: 668 (2023)
- Systematic review
- 32 studies January 2010 to October 2023.
- Compared to women without infertility, the prevalence of mental health disorders, including anxiety, depression, psychological distress, and stress, is high(er) among women with infertility
- the severity is influenced by social determinants.
- **Better Health Outcomes:**
- higher education
- Employment
- Higher personal or family income
- Private health insurance
- Higher social support
- Stronger religious beliefs & higher spiritual well-being.

Asson. b/w infertility & psychological distress using ALSWH

- Australian Longitudinal Study on Women's Health (ALSWH) data
- Surveys q 2-3 years
- 2000-2018
- 6582 women
- Birth years 1973-1978
- Used Generalized Equation Modelling (GEE) Method
- Studied association of primary, secondary, resolved infertility status + psychological distress

- Bagade T, Thapaliya K, Bruer E, et al. Sci Rep 2022;12:10808

Asson. b/w infertility & psychological distress (contd.)

- Measures to assess psychological distress:
- mental health index subscale of 36 item survey (short form, SF-36)
- Ctr for Epidemiologic Studies Depression Scale (CESD-10)
- Goldberg Anxiety & Depression Scale (GADanx) anxiety subscale
- composite psychological distress variable

- Bagade et al 2022

Asson. b/w infertility & psychological distress (contd)

- 1/3 reported infertility

- 50% of women with primary or secondary infertility reported psychological distress vs. those with normal fertility

- Primary infertility (OR) 1.24, 95% CI 1.06-1.26
- Secondary infertility (OR) 1.27, 95% CI 1.10-1.46
- Resolved infertility (OR) 1.15, 95% CI 1.05-1.26

- Bagade et al 2022

Asson. b/w infertility & psychological distress (contd.)

- Among the women who reported infertility
- Anxiety 24% (range 21.8% to 27.5%)
- Primary infertility had higher anxiety rates (23.5%) compared to secondary infertility (18.4%)
- Depression 41%
- Mild to moderate depression (range 12.2% to 80%)
- Severe depression (range 4.27% to 5.4%).

- Bagade et al 2022

Asson. b/w infertility & psychological distress (contd)

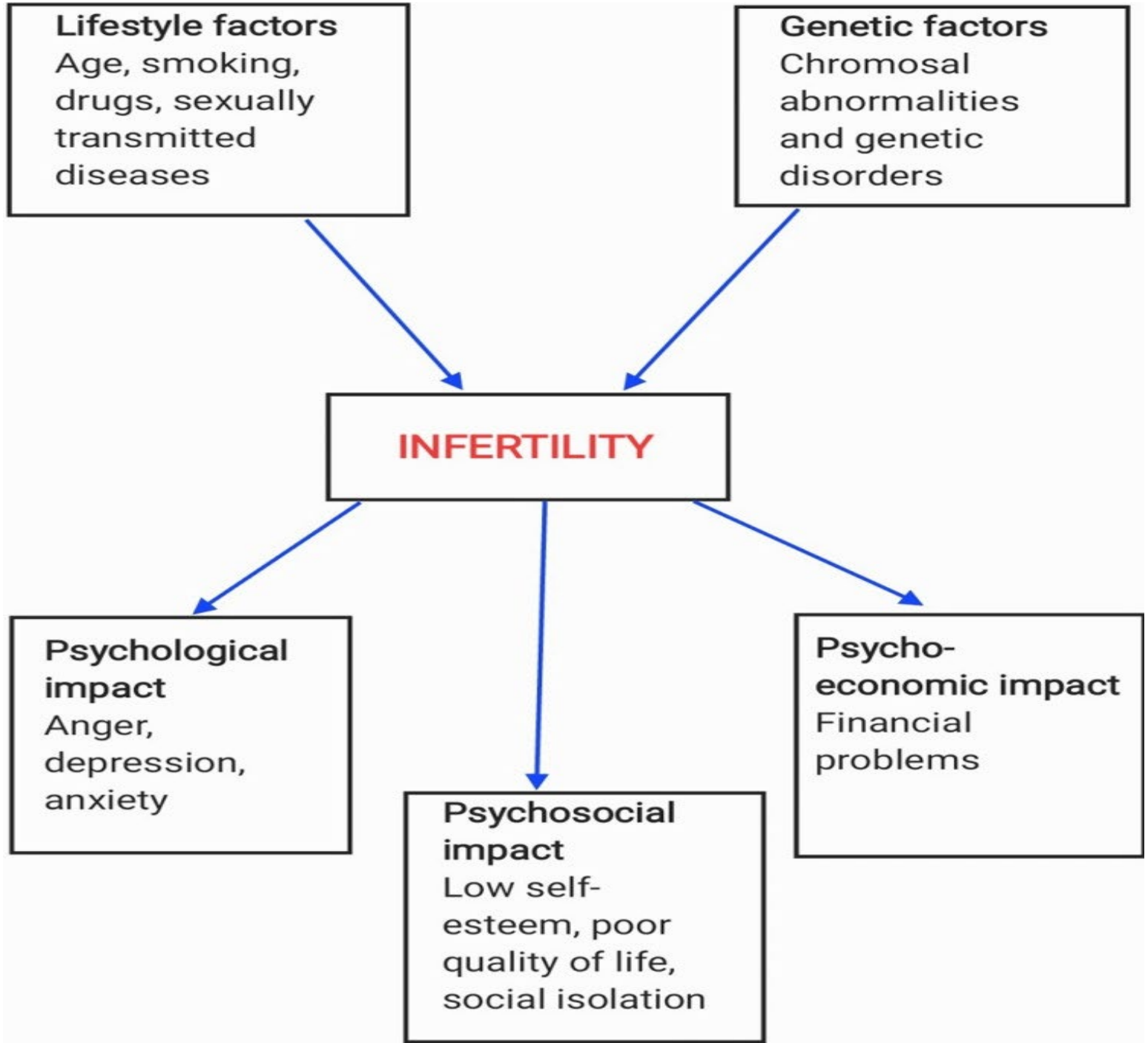
- Higher rates of psychological distress
- women with partners
- extremes of weight (underweight, obese)
- tobacco & alcohol dependence
-
- Medical conditions (diabetes, hypertension, asthma) independently associated with higher odds of psychological distress

- Bagade T et al 2022

Psychological Problems Related to Infertility A. Sharma, D Shrivastava.

- Cureus. 2022 Oct; 14(10): e30320.

- Various ways in which infertility can affect couples


Lifestyle factors
Age, smoking, drugs, sexually transmitted diseases
Genetic factors
Chromosal abnormalities and genetic disorders
INFERTILITY
Psychological impact
Anger, depression, anxiety
Psychosocial impact
Low self-esteem, poor quality of life, social isolation
Psycho-economic impact
Financial problems

Mental disorders DURING infertility Rx

- Despite the increasing prevalence of ART, there are no uniform standards for psychological and psychiatric interventions in the case of mental health complications of the diagnosis and treatment of infertility.

- Holka-Pokorska J, Jarema M, Wichniak A. Clinical determinants of mental disorders occurring during the infertility treatment. *Psychiatr Pol.* 2015;49:965–982.

Mental Health Disorders DURING infertility Rx

- Infertile women undergoing IVF-Embryo Transfer treatment experience elevated levels of psychological distress.
- Anxiety and depression are the most common
- Van den Broeck et al., 2010; Gdanska et al., 2017; Bai et al., 2019a
- Result: significant adverse treatment outcomes
- Smeenk et al., 2001; Quant et al., 2013; Aimagambetova et al., 2020.

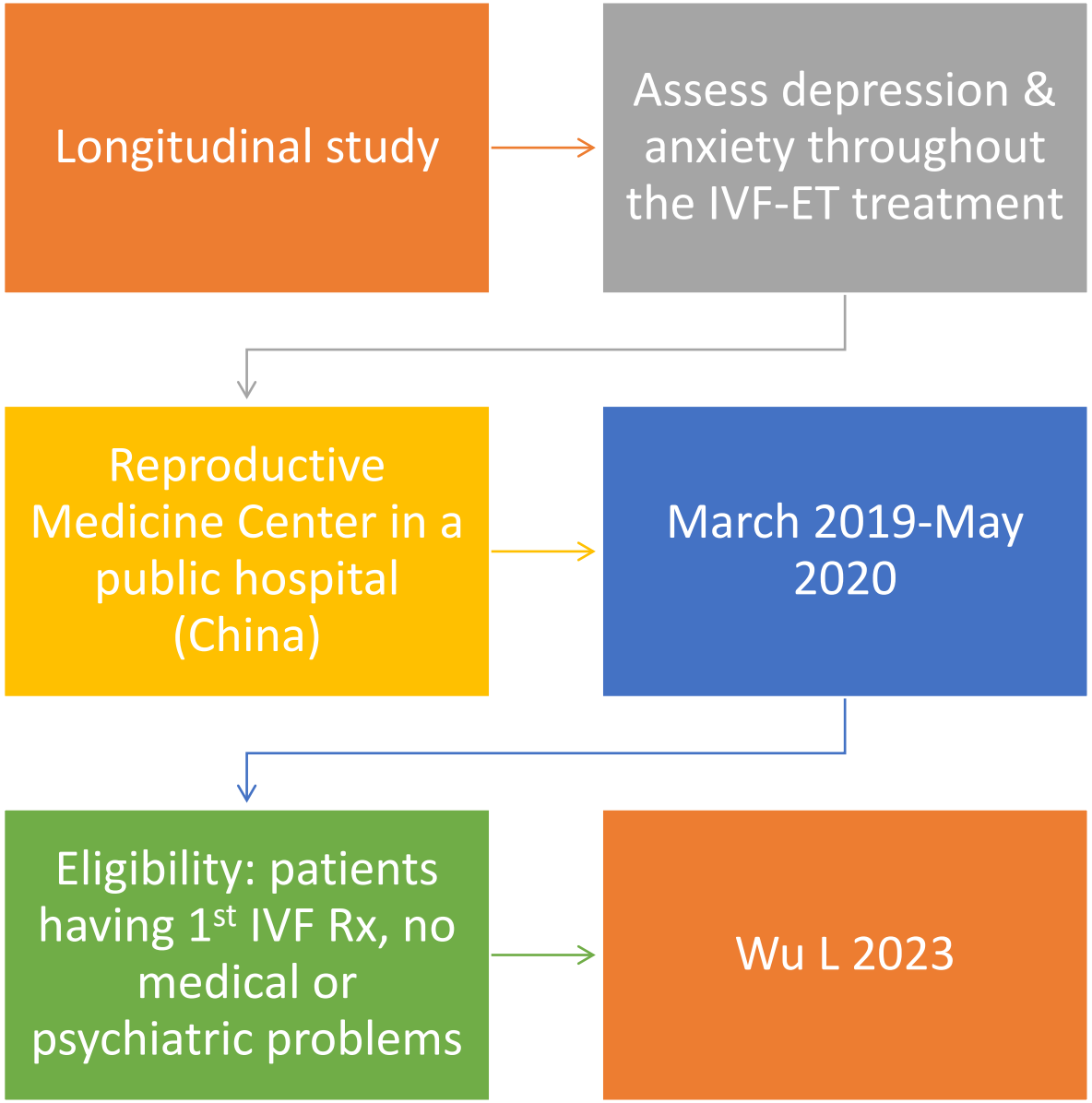
Mental Health Disorders DURING Infertility Rx

- The most popular framework to investigate depression, anxiety, and their co-occurring symptoms is the common cause theory that the co-occurrence of symptoms is caused by an unobserved common cause (Borsboom, 2008; Schmittmann et al., 2013).
- In studies of infertile women, it has been hypothesized that depression causes symptoms such as hopelessness, sleep disturbances, and fatigue (Hughes and da Silva, 2011; Huang et al., 2019; Kim et al., 2020)
- Anxiety causes symptoms such as worry, restlessness, and fear
- (Karatas et al., 2010; Cao et al., 2022).
- Thus, most mental health research in infertility focuses on the total scores or frequencies of distress symptoms to represent psychological distress severity
- (Lakatos et al., 2017; Cui et al., 2021; Liu et al., 2021; Dadhwal et al., 2022).

Psychological distress among women undergoing IVF-embryo transfer: cross-sectional & longitudinal network analysis

- L Wu, L Sun, J Wang, et al Front Psychol. 2023; 13: 2022.1095365.
- Women undergoing IVF-embryo transfer (IVF-ET) experience varying degrees of psychological distress across the treatment.
- Existing studies focused on total scores and diagnostic thresholds to characterize the symptoms' severity.
- This might hinder scientific progress in understanding and treating psychological distress.

Psychological distress during IVF-ET (contd).



Psychological distress in IVF-ET contd

Questions:

(a) how depression and anxiety symptoms are interconnected within a network

(b) the changes of the network (symptom connections and network centralities) over time

Wu L. 2023

Psychological distress in IVF contd

4-wave longitudinal study

- 343 out of 420 total participated
- The network models explored the relationship and changes between psychopathology symptoms both within and across anxiety and depression
- Anxiety measured by the Generalized Anxiety Disorder-7
- Depression measured by the Patient Health Questionnaire-9.
- Symptom network analysis was conducted to evaluate network and network properties, network centrality, bridge centrality, and change trajectory network.
- Wu L 2023

Psychological distress & IVF (contd)

T1 day of admission

T2 start of IVF cycle

T3 day of oocyte retrieval

T4 day before pregnancy test 2 weeks after embryo transfer

Wu L 2023

Psychological distress & IVF (contd.)

- Strength centrality: simplest centrality coefficient-clear relationship with well understood psychometric measures and it's accessible robust estimates
- Bridge centrality: identify symptoms that may be a bridge to anxiety and depression (role of a symptom in connecting 2 mental health disorders)

Psychological distress in IVF

- strength centrality, “inability to control worry” and “worrying too much” were the most central symptoms at T1, but these symptoms decreased.
- The centrality of “sadness” and “guilt” tended to increase steadily and became dominant symptoms.
- For bridge centrality indices, several bridge symptoms were identified separately from T1 to T4:
- “irritability,” “concentration difficulties,” “nervousness,” and “restlessness;” “guilt” exhibited increased bridge symptoms.
- Change trajectory network indicated that “suicide ideation” became more closely related to guilt but not to worrying too much over time.
- * simplest coefficient-clear relationship with well understood psychometric measures
- Wu L. 2023

Networks of Depression, Anxiety symptoms over 4 time points

T1 (A n=343)

T2 (B n =269)

T3 (C n = 261)

T4 (D n = 212)

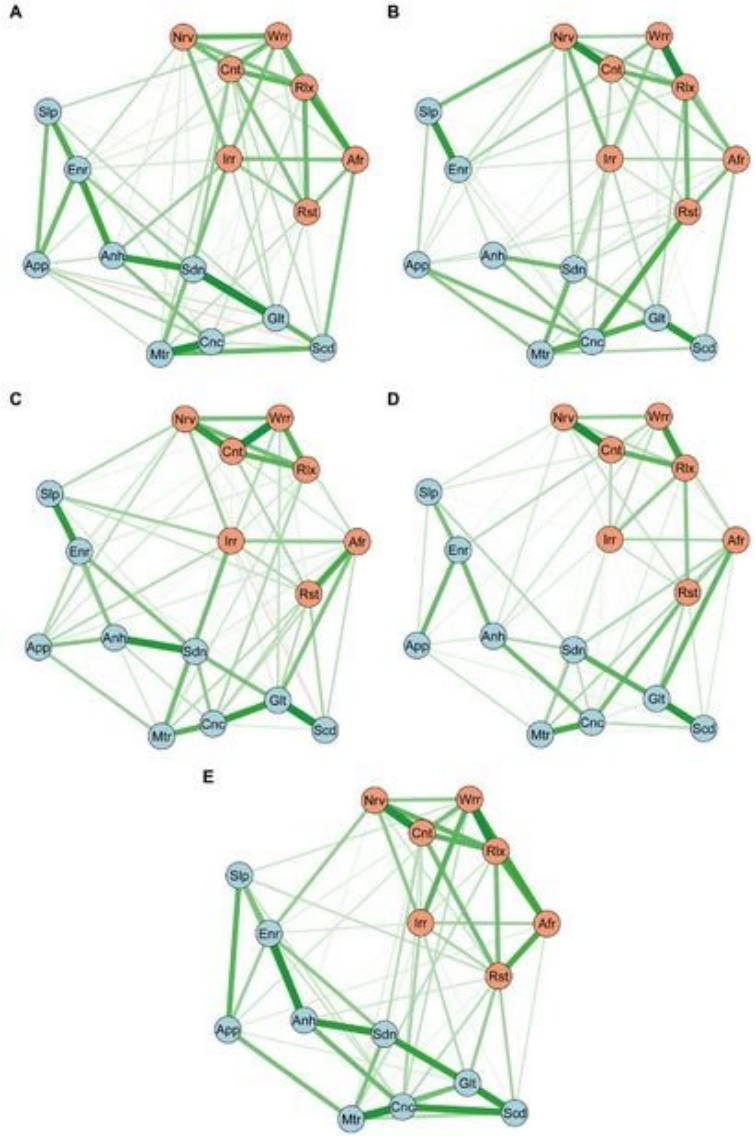
T1-T4 Slopes Network (E n =210)

Blue nodes: PHQ-9 items

Orange nodes: GAD-7 items

Positive: green

Negative: red



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Psychological distress and IVF-ET

- This study provides novel insights into the changes in central features, connections, and bridge symptoms during IVF-ET treatment
- Several bridge symptoms are identified separately at different stages
- These could activate the connection between psychopathology symptoms.
- Sense of guilt was associated with worsening psychopathology symptoms
- Therefore, future psychological interventions should prioritize guilt-related symptoms.
- Wu L. 2023

Psychological distress & IVF--Conclusion

- Focus on psychological distress during IVF-ET treatment in women, offers insights into understanding the interactions and changes in depression and anxiety symptoms.
- There are central and bridge symptoms over different stages of IVF-ET
- Can help provide clinical recommendations for psychological interventions
- Goal: decrease the co-occurrence of symptoms between various psychological health issues.
- And thus to improve services for this population.

mental health of mothers and fathers

during pregnancy, early parenthood after successful oocyte donation treatment: nested case- control study

- Acta Obstet Gynecol Scand 2018 Dec 97 (12) 1478- 85
  Salevaara M, Punamaki RL, Unkila- Kalio U, et al

Mental Health of mothers and fathers

- prospective, longitudinal questionnaire study.
- Study group:
- 26 oocyte donation mothers
- matched IVF/ICSI who used their own gametes (n = 52)
- Naturally Conceiving (n = 52) --controls.
- General Health Questionnaire (GHQ-36)
  - 18-20 weeks GA (T1)
  - 2 months PP (T2)
  - 12 months PP (T3)
- Salevaara et al 2018

Mental Health of Mothers and Fathers

- Full response rate --T1-T3 (18-20 weeks upto PP)
  oocyte donation mothers 76.9%
  oocyte donation fathers 73.1%.

- At T1 (during pregnancy), no significant differences found between groups in depression, anxiety, sleeping difficulties, or social dysfunction
- At T2 and T3 increased
- anxiety (T2, P = .02; T3, P = .01)
  sleeping difficulties (T2, P = .02; T3, P = .04)
  social dysfunction (T2, P = .01; T3, P = .04).

- Oocyte donation mothers showed fewer mental health symptoms in early parenthood (T2, T3)
- vs IVF/ICSI and NC mothers
- No differences in fathers at any time point (oocyte donation, IVF/ICSI, NC controls)

Effects of the medical treatments

- Besides the mental effects that arise from infertility, side effects may also be caused by drugs and hormones used to treat infertility.
- Synthetic estrogen clomiphene citrate prescribed to improve ovulation and increase sperm production, can trigger anxiety, interruptions of sleep, and irritability in women
- Letrozole (estrogen receptor blocker) can cause dizziness, fatigue, headaches, or breast pain.
- Leuprorelin may cause acne, anxiety, depression, or mood changes
- Therefore, it may be difficult for patients and clinicians to understand which responses are psychological and which are medication related.

Failed treatment cycles

- IVF helps <50% of patients to become parents
- The probability of achieving pregnancy decreases with age
- Couples who fail in the first (or earlier) round(s) of IVF may face financial challenges, embarrassment, sense of loss and lack of control—all are stressors which can impact mental health and sense of well being
- The degree of stress is undoubtedly increased, during the entire therapy procedure, if there are confounding factors such as lack of emotional and educational support.


evaluate
education
interventions
Clearinghouse
behind
Research
evidence-based
post
evidence
school
programs
research
effectiveness
Education

Psychotherapy

- Psychotherapy is an important intervention that should be recommended for couples diagnosed with any form of infertility
- A critical point for the clinician to note is that couples going through infertility treatment will experience the process both individually and as a whole.
- The couple may not discuss these feelings with each other. Generally, men experience great difficulty expressing their emotions in our society.
- Because of the individual nature of passing through stages of denial, anger, blame, shame, and despair, many practical problems arise, and these may become long lasting and insurmountable

Interventions to address mental health burdens –Infertility counselling

- A qualified medical health practitioner (MHP) can offer fertility counseling before initiating the process and also during the treatments
- Counseling can be provided for one partner or the couple, individually, or in a group.
- It aims to address the extraordinary situation-specific needs of patients (such as in times of high distress, in pregnancy after infertility, in multiple pregnancies, while facing the end of medical treatment, while entering third-party donor programs)
- Guidelines for infertility counseling are different from the usual disease-orientated gynecology and obstetrics consultations because the focus is on the emotional crisis associated with an unfulfilled wish or life goal; the medical treatments required to meet this wish which may require repeated cycles of interventions with narrow success rate; the long-lasting wait creates frustration, disappointments, desperation and additional marital, familial, and interpersonal stresses, family and the intracouple dynamics often gets affected as the evaluation and diagnostic procedures impact the intimate lives and personal well-being of couples

Role of Psychotherapy

- Counseling should ideally begin before patients start any medical intervention to help with infertility.
- Some people may require therapy to accept the fact that they are infertile.
- Addressing psychological problems such as depression, anxiety and stress may help increase the chance of conception and may aid in developing coping mechanisms and decision-making while undergoing treatment.
- Besides anxiety and depression, patients who suffer from or develop various sleep and eating disorders may also benefit from it.
- An IVF clinical specialist with expertise in mental health nursing is ideal for such patients as they know both reproductive procedures and psychotherapy.
- On the other hand, people with expertise in psychological and social work may have a strong foundation in mental health. But they lack the medical understanding of reproductive procedures, which is a necessary component for couples receiving infertility treatment.

Relaxation Techniques

Along with psychological interventions, relaxation techniques have been widely shown to reduce negative emotions in this setting.

Such techniques have been shown to significantly reduce anxiety scores in women undergoing infertility treatment

Yoga intervention has been shown to increase the quality of life and decrease negative feelings and thoughts that can be associated with infertility [22].

Multiple relaxation techniques recommended by specialists are meditation, deep breathing, guided imagery, and yoga

Self-Administered Interventions

Psychological interventions do not necessarily need to be administered by a clinician.

A randomized controlled prospective study of 166 first-time IVF patients evaluated the use of a self-administered cognitive coping and relaxation intervention (CCRI). The findings suggested that patients utilizing the CCRI displayed more positive reappraisal coping, improved quality of life, and reported less anxiety

Another self-administered tool is the Positive Reappraisal Coping Intervention (PRCI) which helps people take account of the positive aspects of stressful situations

Ref:

Creating a collaborative model of mental health counseling for the future

Alice D. Domar, Ph.D. Domar Center for Mind/Body Health, Boston IVF, Beth Israel Deaconess Medical Center, Harvard Medical School, Waltham, Massachusetts

• Fertility and Sterility® Vol. 104, No. 2, August 2015 0015-0282/$36.00

Collaborative model contd

- The psychological aspect of infertility treatment has been mainly addressed by the mental health and nursing communities, both in terms of clinical approaches to treating distress and research on interventions which could have the greatest potential to offer the most relief to patients. However, physicians and other members of the medical team might well benefit from including more of a mental health focus in their patient care model.

- Domar AD 2015

Collaborative model contd

- Patient distress can have an adverse effect on the patient, their treatment, and their health care providers through a variety of ways, including the following:
- 1. Experiencing symptoms of anxiety, depression, or both are unpleasant for the patient.
- 2. Working with anxious and/or depressed patients poses more challenges to their caregivers.
- 3. Distressed patients are more likely to terminate treatment.
- 4. Psychological distress may be correlated with lower pregnancy rates.
- It is proposed that a collaborative model of mental health counseling can address each of these issues, thus potentially leading to less stress among the patients and then the caregivers, with patients remaining in treatment longer and achieving higher pregnancy rates.
- Recent literature supports the hypothesis that relieving distress through psychological interventions is associated with significantly higher pregnancy rates

Collaborative model contd

- CONCLUSION: Infertility represents a staggering psychological challenge to most patients. It can affect their partnership, their sex life, their relationships with family and friends, their financial stability, their career, and even their faith.
- The resultant symptoms of anxiety and depression can pose challenges not only for the patient, but also for the entire infertility health care team.
- MHPs can provide a double dose of efficacy, preventing and treating patient distress as well as supporting nurses and physicians in their health care efforts. The future of infertility treatment must include an integrative model of care.
- Domar AD 2015


Anxiety
Phobia
rief
STRESS
POST-TRAUMATIC
STRESS
Sham
PANIC
EPRESSION

Patients' mental health needs before treatment

- The infertility team should be aware that as per international estimates, many patients who seek consultations or planned treatments may discontinue them at any point in their journey.
- There could be various causes including personal disinterest and also ethical, financial, or personal.
- Other attributes of the treatment and medical staff that can lead to mental health stressors include disrespect towards patients, being insensitive to different needs of patients, negative staff communication, and feeling pressured during the decision making processes.
- Before the start of the treatment, the infertility team should address the patient's health beliefs and lifestyle choices.

Patients’ needs during treatment

- During the treatment, there is a rise in psychological stress, which can be attributed to the fear of treatment failure.
- Couples whose first IVF cycle doesn't work may discontinue the treatment due to financial burdens, psychological problems, and physical and relational problems between partners.
- Women experience more distress as compared to men, especially when treatments fail.
- The most critical phases during this period are retrieval of the ovum, transferring the embryo, and waiting for the pregnancy test to become positive. All these are associated with increased distress.
- Educational status, occupational status, psychological support, acceptance, helplessness, and coping are core mediators of infertility stress in men and women
- To address the above needs, patients are advised to undergo regular and scheduled counseling, and active participation from both partners is encouraged.
- Ref:

Patients' needs after treatment

- After treatment, the couple's needs will differ amongst those who have had a successful treatment and those who have not.
- Needs of those with failed IVF cycles:
- Data suggest that five years after failed cycles, childless patients are more likely to involve themselves in substance abuse and dependence (of alcohol, tobacco, and benzodiazepines), than those who become parents by adoption or spontaneous conception.
- Depressive disorders are common after ineffective treatment.
- Couples are encouraged for therapy sessions with a Mental Health Practitioner (MHP).
- Needs of those with successful treatment:
- In this group, women experience greater anxiety since they had a difficult conception, have worries related to the viability, gestation, and live birth of the fetus
- General recommendations include enhanced communications to share information, preparing, discussing, and clarifying and worries related to outcomes of their pregnancies

Role of the Infertility Team

- Patients diagnosed as infertile go through a great deal of emotional upheaval.
- There are increased levels of anxiety, depression, low self-esteem, and various other mental disorders.
- Relying on patients to self-report themselves is one of the significant difficulties in determining the degree of anguish experienced by infertile couples.
- Sometimes, couples may fake their emotions. Usually, in the beginning, couples are hopeful and have a positive approach toward the treatment, which is when data collection for evaluating mental stress is done.
- As the treatment progresses, levels of stress increase.
- Patients should be encouraged to talk to a therapist regularly, which helps them better deal with such an overwhelming situation.

Role of the Infertility Team (contd.)

- It is essential for patients to be available for therapy during IVF
- Their desire to receive psychological treatment is the first matter that needs to be delicately addressed by the medical staff.
- The infertility team needs to communicate clearly that an option of psychological counseling and therapy is available to the couple to aid them in coping with infertility and the treatment process rather than exploring hidden personal failures or psychogenic causes of infertility.
- Contacting distressed couples personally increases take-up rates of therapy. Availing therapy would aid the couple in reducing emotional distress and developing new perspectives and scope of action rather than submitting to unrealistic expectations, blame, guilt, resignation, and hopelessness

Mental Health & IVF

- In some couples who did not have a positive outcome in IVF treatment or are not financially well, therapy helps them provide other options for becoming parents, like adoption. In the end, we deduce that the relationship between stress and infertility is a vicious cycle; couples undergoing infertility treatment are under tremendous pressure, and stress is one of the causes for couples not being able to conceive. Therefore, psychotherapy given in the form of counselling is crucial for such couples and should ideally be started when the infertility diagnosis is made to break the cycle of stress.


LONG-TERM
SHORT-TERM

Social determinants of mental health disorders in women with infertility: systematic review

- The relationship between infertility and psychological stress is bidirectional
- There is a significant association between infertility and psychological distress in women, even after the infertility is resolved by a successful pregnancy, highlighting the long-term consequences of infertility on mental health

- Bagade T, Mersha AG, Majeed T. BMC Women's Health 23, #668. 2023

Women's adjustment trajectories during IVF and impact on mental health 11-17 years later

- S Gameiro, A van den Belt-Dusebout , J J Smeenk, et al
- Human Reproduction 2016, Aug:31(8):1788-98

- Do patients present different adjustment trajectories during and after IVF treatment?
- Most women show resilient trajectories during and after IVF.
- 37% show temporary or chronic maladjustment during IVF
- 10% are maladjusted

Women's adjustment trajectories during IVF and impact on mental health 11-17 years later

- Research on psychosocial adjustment during IVF has helped identify the most distressful stages of IVF treatment
- and
- Has helped to profile patients at risk for emotional maladjustment.
- This knowledge can help provide psychosocial care at fertility clinics tailored to patients' risk profiles during IVF.
- However, current care does not address how patients adjust across the entire trajectory of the IVF pathway.
- This can be assessed by profiling individual patients' adjustment trajectories.
- Gamiero S. et al 2016

Adjustment trajectories during IVF

- Longitudinal cohort study
- 5 assessment moments
- Combined data from 2 studies—(STRESSIVF & OMEGA projects). STRESSIVF study (pts started IVF in 1998-2000), were assessed before and after the first IVF cycle, 6 months and 2.5 years after the last IVF cycle.
- A subset participated in OMEGA project (pts started IVF in 1995-2000) and reported on their mental health 11-17 years after treatment.

- Gamiero S 2016

Adjustment trajectory during IVF

- 348 women participated in the STRESSIVF project
- 108 of these were in the OMEGA.
- anxiety was measured with the State and Trait Anxiety Inventory depression with the Beck Depression Inventory
- mental health with the Mental Health Inventory.
- Latent class growth mixed modelling was carried out to identify distinct anxiety and depression trajectories over the four STRESSIVF study assessment moments.
- Multinominal logistic regressions were conducted to investigate predictors of trajectory membership
- Stepwise linear regressions were performed to investigate if adjustment trajectories predicted mental health 11-17 years after IVF treatment.
- Gamiero S 2016

Trajectories

	Resilient	Recovery	Delayed
	%	%	%
Normal levels anxiety	67		
Normal levels depression	86		
Increased anxiety during Rx		24	
Increased depression during Rx		33	
Anxiety after Rx			4.6
Depression after Rx			4.9

- Gamiero S 2016

Trajectories

- 4.3% showed chronic anxiety (chronic trajectory, not identified for depression)

- Non resilient trajectories were associated with unsuccessful treatments, marital dissatisfaction, lack of social support, negative infertility cognitions

- One in 10 women had a delayed or chronic trajectory and these trajectories predicted serious mental health impairment 11-17 years after treatment

Adjustment trajectories during IVF (contd.)

- Fertility providers should consider the responsibility of supporting patients in the aftermath of treatment.
- It is possible to profile different groups of at-risk women at the start of the treatment and tailor psychosocial support to risk profile to promote health adjustment during treatment and thereafter.

Conclusion

- There is a need for
- early detection
- tailored interventions
- integrated and comprehensive support systems
- to address the mental health needs of infertile women and their partners in order to improve their well being