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# EXPERIENCES OF MENTAL HEALTH PROFESSIONALS AND GYNECOLOGISTS WITH INFERTILITY PATIENTS: AN EXPLANATORY STUDY

Dr. Fahmida Naheed<sup>1</sup>, Dr. Mohsin Aliemuddin<sup>2</sup>, Iqra Batool<sup>3</sup>, Dr. Mirrat Gul Butt<sup>4\*</sup>

<sup>1</sup>Gynacologist, Assistant Professor, Bolan Medical Complex Hospital, Quetta
 <sup>2</sup>Psychiatrist, PAF Hospital, Sargodha. Email: doctormohsin80@hotmail.com
 <sup>3</sup>Lecturer Superior University, Lahore. Email: iqra.batool@superior.edu.pk
 <sup>4\*</sup>Senior Clinical Psychologist at Mayo Hospital, Lahore. Email: mirratgul@gmail.com

\*Corresponding author: Dr. Mirrat Gul Butt \*Senior Clinical Psychologist at Mayo Hospital, Lahore. Email: mirratgul@gmail.com

Abstract

**Objective:** Infertility is a disease suffered by individuals in which women are unable to conceive or opt for pregnancy. The duration of infertility is determined approximately 12 months after unprotected sexual duration. One in every six individuals experienced or suffered from the disease of infertility across their lifetime. The current study aims to comprehensively explore the challenges faced by gynaecologists and mental health professionals while treating individuals with infertility.

**Method:** The Qualitative study was conducted through purposive sampling by selecting the professionals (Gynacologists=9, clinical psychologists=4,) with having a minimum of 5 years to a maximum of 29 years of experience working with the patients working with the infertility. A total of 13 semi-structured interviews were conducted. The interviews were audio-recorded and transcribed by researcher (MR, QI). The transcripts were analyzed using a systematic approach that incorporates inductive thematic analysis.

**Results:** The themes that emerged after analyses were combined under the two main professionals: Gynecologists professionals and Mental health professionals. The main results indicated that the mental health professionals indicated the three main themes these are; emotional well-being, collaboration with gynacologist and coping strategies, although the other themes were emotional impact, patient center approach and diagnostic and treatment problems while dealing with infertility patients.

**Keywords:** Infertility, mental health professionals, gynacologist, emotional unstable

#### Introduction

Infertility is a disease suffered by individuals in which women are unable to conceive or opt for pregnancy. In some studies, the duration of infertility is determined approximately 12 months after unprotected sexual duration (Practice Committee of the American Society for Reproductive Medicine, 2013). According to the World Health Organization (WHO), one in every six individuals experienced or suffered from the disease of infertility across their lifetime (WHO, 2023). It has been indicated that infertility factors are different in males or females, such as it could be because of abnormal secretion

of sperm quantity or morphology, abnormalities of the uterine, suffering from different endocrine disorders, ovulatory dysfunction and diminished ovarian reserve (Penzias et al., 2021).

According to the studies, it has been indicated that both men's and female problems are being considered equally in terms of infertility as in some cases a third of infertility is due to problems in females and another third per cent is due to the problems in men as mentioned earlier (Wu et al., 2018). In another study, it has been indicated that in around 40% of the cases (Hoff et al., 2018), both the male and the female have an infertility difficulty and unexplained infertility accounts for around 25% of the cases. In this case, the cause is unidentified (National Health Service, 2017). Furthermore, couples, who have been trying to have a baby for more than three years, have a 25% or less chance of getting pregnant (Harper et al., 2022).

There are different treatment methods in which couples usually pass through for the treatment of infertility. According to the gynaecologist's perspective, three main methods are medical treatment (use of drugs to induce ovulation) (Rasool and Shah, 2017), surgical treatment or assisted reproduction techniques (ART) such as intrauterine insemination (IUI) and in-vitro fertilization (IVF) (Lazarus, 1984). Evidence suggests that due to the treatment process couples face different mental health-related problems that become the cause of the psychological burden and decrease quality of life among patients which ultimately enhance the stress hormones and affect the infertility treatment (Kiemen et al., 2023).

Furthermore, females who suffered from infertility at a young age suffered additional long-term risks beyond reproduction and immediate quality of life, including decreased bone mineral density, sexual distress, disturbed sleep, and a higher likelihood of premature ovarian insufficiency (Pal et al., 2010). The studies indicated that while treating the problems of the patients some professionals also experienced different challenges such as emotional impact, burnout state and others (Pastore et al., 2017). The current study aims to comprehensively explore the challenges faced by gynaecologists and mental health professionals while treating individuals with infertility. Furthermore, it also helps to explore the professional dynamics, emotional impact and multifaceted challenges faced by professionals while providing holistic care to couples dealing with infertility.

#### The objective of the study:

In the previous years, the problem of infertility has been increasing and reporting as well as consultation for treatment has been increasing. Multiple studies highlighted the pressure and suffering from the perspective of the patients or couples who suffered from infertility. Still, the present study aims to explore the professional experiences and problems they faced while undergoing treatment of couples suffering from infertility.

# The Novelty of the Study:

The current study aims to comprehensively explore the challenges faced by gynaecologists and mental health professionals while treating individuals with infertility. Furthermore, it also helps to explore the professional dynamics, emotional impact and multifaceted challenges faced by professionals while providing holistic care to couples dealing with infertility.

#### **Material and Methods:**

The present study was conducted to explore the challenges faced by gynaecologists and mental health professionals while treating individuals with infertility. The Descriptive qualitative research design was used to explore the challenges faced by gynaecologists and mental health professionals. The Qualitative study was conducted through purposive sampling by selecting professionals across Pakistan (Gynacologists=9, clinical psychologists=4) having at least 5 years to a maximum of 29 years of experience working with couples with infertility.

A total of 13 semi-structured interviews were conducted with nine Gynaecologists, and four Psychologists working with patients suffering from infertility. The Data was collected from October 2022 till May 2023. The participants were recruited by the purposive sampling technique. The sample was recruited through semi-structured interviews after completion of the written informed consent from concerned participants and the institute. The data gathered from the interview was transcribed, translated, and analyzed to interpret the results.

#### **Research Tools**

The semi-structured interview schedule was used to collect data from the participants who gave consent to participate in the study. The interviews were conducted in the Native language, Urdu, and then transcribed into English. All the interviews were audio-recorded. The interviews were recorded on two recording devices to ensure backup in case one device was not working. The researcher was accompanied by an assistant who took notes during the interviews. The duration of an interview ranged from 30 minutes to 45 minutes on average. The researcher and respondents who asked openended questions were encouraged to give detailed responses.

# **Analysis**

Thematic analysis was used to analyze the data collected through interviews. This qualitative design allows the researcher to identify the theme and patterns in the data hence deemed appropriate for the given research question (Lennox et al., 2021: Braun and Clarke, 2022). All the interviews were transcribed and translated into English. The translated and original transcription data files were shared with a language expert to ensure the quality of translation and to grasp the exact meanings which the participants communicated.

The thematic analysis approach was used for the data analysis, aimed to categorize a set of central themes that identify the themes and patterns in the data. The pattern is then categorized into a theme and similar themes are then merged into one single category. This approach directs researchers to implement a well-structured approach while dealing with the data which eventually produces a clear and organized final report (Wiltshire and Ronkainen, 2021).

The conceptual themes were extracted from the highlighted points in the next stage. The coding/highlighting themes were carried out for all the interviews. In the final stage, similar themes were grouped under the main or major categories. Inter-coder reliability improved when the coders used the analysis code book independently and a discussion was held between the coders and experts to resolve disparities in coding. In the end, a final file was prepared in which categories and themes were constructed.

## **Data Trustworthiness**

The member checking/external audit of themes was conducted by assigning an external auditor who went through the data and confirmed his agreement with the extracted themes.

# **Ethical Consideration**

The approval was obtained from the ethical board of the university and permission was granted to collect data from the concerned gyane treatment centers. The participants were recruited, and permission was taken from the individual/participants. The participants were explained their right to withdraw from the study if they were not willing to continue or if they were not comfortable.

# Result and discussion

The present study aimed to explore the challenges faced by gynaecologists and mental health professionals while treating individuals with infertility. All the verbatim interviews were gathered, and then themes were generated using thematic analysis.

**Table 1.1** *The table shows the major themes merged from the analysis of the interviews* 

Main Themes	Sub-themes	ne major themes merged from the analysis of the interviews  Verbatim
Main Themes	Sub-inemes	
Emotional Impact	Compagion	Gynaecologists Perspectives "Sometimes couples feel helpless and ready to pay all costs, it is
Emotional Impact	Compassion Fatigue	"Sometimes couples feel helpless and ready to pay all costs, it is very hurtful (Participant PA: lines 71-73)"
	C	"Doctor suffers in emotional thing as sometimes it's not in our hand to provide 100% result and patient disappointment makes us emotional distressful (Participant AA: lines 81-86)" "This is a very emotional and sensitive matter and the emotionality of the patient transfers in the doctors as well as the treatment is a
		long process (Participant TA: lines 36-37)"
	Fulfillment	"When patients are successful and become parents even the doctors have an impact means emotionality feels like happiness and accomplishments, so both things impact the practitioners (Participant SA: lines 63-65)"
		"This is sometimes rare to get results, sometimes during treatment, it will be exhausted and impact negatively on the treatment as well become the cause of the distress of practitioner (Participant PA:
		lines 58-60)"
		"Sometimes patients understand the process of treatment and sometimes it is not understandable both impact on professional and patient sometimes not want to understand the time duration and it impacts (Participant AA: lines 93-95)"
Diagnostic and	Ethical	"Embarking on fertility treatments often involves ethical
Treatment	Dilemmas	considerations, such as balancing the desires of the couple with the
Challenges		potential risks and benefits of certain interventions (Participant ST:
		lines 101-103)"
		"To manage all the protocols and keep all the things in line as it is the decision related not only about life but also it's about a family (Participant SA: lines 85-86)"
		"Patients seem unacceptable when diagnosed and do not show
		interest towards the treatment at the initial phase (Participant AA: lines 87-88)
		"To acknowledge the disease and compliance towards treatment is difficult for patients while following the ethical perspectives, everyone looking for simple or easy solutions (Participant PA: 99-101)"
	Communicatio n Struggles	"Patients are not open up become the cause to delay in diagnostic perspective (Participant FA: lines 31-32)
		"One of the ongoing struggles is effectively conveying the potential challenges and uncertainties associated with fertility treatments without overwhelming our patients emotionally (Participant SA: lines 88-90)"
		"Balancing optimism with realism is a constant communication
		struggle, particularly when discussing success rates, potential
		setbacks, and the emotional toll of infertility treatments (Participant SA: lines 116-118)"
		"Communicating complex diagnoses and treatment options to patients dealing with infertility is a delicate task, and finding the right balance between honesty and sensitivity can be challenging (Participant PA: lines 128-130)"
Patient-Centered Care	Emotional Support	"In our approach to patient-centred care, we prioritize emotional support as a fundamental aspect of fertility treatment. Infertility can be an emotionally taxing journey, and we are committed to providing a compassionate and understanding environment for our
		patients (Participant SA: lines 126-129)"

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		"Recognizing the emotional impact of infertility, our goal is not just to address the medical aspects but to be a source of comfort and support. We encourage open communication about the emotional challenges our patients may be experiencing (Participant PA: lines 168-171)"
		"Our team understands that the emotional well-being of our patients is intertwined with their fertility journey. We offer resources,
		counseling, and a listening ear to help them navigate the highs and lows, fostering a sense of hope and resilience (Participant FA: lines 61-63)"
		"Beyond the medical procedures, our role includes providing a safe space for emotional expression. We acknowledge the emotional
		rollercoaster that fertility treatments can be and aim to be a supportive partner throughout the process (Participant PA: 159-
	~	162)"
	Cultural Sensitivity	"Cultural sensitivity is a cornerstone of our patient-centered care.  We respect and appreciate the diverse cultural backgrounds of our patients, recognizing that cultural factors play a significant role in their experience of infertility (Participant FA: lines 89-92)"
		"Each patient brings a unique cultural context to their fertility
		journey. We strive to understand and integrate cultural
		considerations into our treatment plans, ensuring that
		recommendations align with the values and beliefs of each
		individual or couple (Participant TA: lines 76-79)"
		"Our commitment to cultural sensitivity involves creating an inclusive and welcoming environment. We take the time to learn
		about the cultural nuances that may impact our patients'
		perspectives on fertility, fostering trust and collaboration
		(Participant SA: lines 358-361)"
		"Being culturally sensitive goes beyond medical expertise. It means
		tailoring our communication style, considering familial and societal
		expectations, and embracing the diversity that enriches our
		approach to fertility care (Participant AA: lines 44-47)"
Professional	Burnout	"Identifying burnout triggers is crucial in our profession. Heavy
Burnout and Coping	Triggers	workloads, the emotional intensity of infertility cases, and the pressure to deliver successful outcomes are common triggers that contribute to the risk of burnout (Participant PA: 201-204)"
		"The nature of our work, dealing with the emotional struggles of
		patients facing infertility, can be a significant trigger for burnout.
		Witnessing the impact of unsuccessful treatments and navigating
		patients' emotional distress can take a toll (Participant TA: lines 76-79)"
		"Burnout triggers often include the challenging balance between
		providing empathetic care and maintaining professional
		detachment. The constant exposure to emotional narratives and the
		pressure to offer solutions contribute to the risk of burnout (Participant FA: lines 161-164)"
	Coping	"To mitigate burnout, self-care becomes a priority. Engaging in
	Mechanisms	regular self-reflection, seeking supervision, and setting boundaries
		are essential coping mechanisms to maintain resilience in the face of
		emotional challenges (Participant TA: lines 133-136)"
		"Coping mechanisms involve finding a balance between empathy
		and self-preservation. Peer support, whether through regular debriefing sessions or informal discussions with colleagues,
		provides a valuable outlet for sharing experiences and gaining
		perspective (Participant PA: 301-304)"
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		"In navigating burnout, fostering a sense of purpose in our work is crucial. Celebrating successes, both big and small, and
		acknowledging the positive impact we have on our patients' lives serve as powerful coping mechanisms (Participant FA: lines 201-204)"
		"Personal well-being is at the forefront of our coping strategies.  From mindfulness practices to regular exercise, incorporating
		activities that promote mental and physical health is key to
		sustaining a fulfilling and resilient professional life (Participant SA: lines 415-418)"
Training and Education	Educational Gaps	"This is the field in which updated or modern knowledge requires, but in Pakistan there is limited specialized field exists (Participant TA: lines 97-98)"
		"Educational gaps become the cause of the lack of skills in professionals that also has negative effects (Participant AA: lines
		141-142)"
	Continuous Learning	"In the dynamic field of reproductive medicine, continuous learning is not just a professional expectation but a necessity. Staying abreast of the latest advancements in fertility treatments and technologies
		allows us to offer the most effective and evidence-based care to our patients (Participant PA: 54-57)"
		"Recognizing the rapid pace of innovation in reproductive medicine,
		continuous learning is integral to maintaining our standard of care.
		It involves not only staying informed about new treatment modalities
		but also understanding the ethical considerations that accompany
	1.6	these advancements (Participant FA: lines 361-365)""
Datient Emericanel		tal Health Professionals Perspectives
Patient Emotional Well-being	Psychological Impact	"Infertility's also has a psychological impact on patients is profound. The emotional rollercoaster of hope, disappointment, and
w chi-being	Impact	uncertainty can contribute to heightened stress levels, anxiety, and
		even depression for individuals and couples undergoing fertility treatments (Participant MR: lines 78-81)"
		"The impact of the mental health related problems extends beyond
		the immediate treatment phase. Long-term stress associated with
		infertility can affect relationships, self-esteem, and overall quality of
		life, emphasizing the need for comprehensive psychological support (Participant RR: lines 98-101)"
		"Failed attempts, prolonged treatments, and the uncertainty of
		outcomes can lead to feelings of grief, loss, and a sense of
		inadequacy, impacting the overall mental well-being of our patients (Participant SS: lines 67-69)"
	Counselling	"Identifying the emotional challenges, addressing counseling needs
	Needs	becomes an integral part of our patient-centered approach. Offering counseling services ensures that individuals and couples have the
		necessary support to navigate the emotional complexities of fertility treatments (Participant RM: lines 56-59)"
		"Counseling needs vary widely among different patients. Some may
		benefit from emotional support to cope with treatment failures, while
		others may require guidance in making difficult decisions, such as whether to pursue alternative family-building options (Participant MR: lines 105-112)"
		"The miscellaneous nature of counseling needs emphasizes the
		importance of personalized care. Tailoring counseling services to
		address the unique emotional and psychological aspects of each patient's journey is essential in providing comprehensive fertility
		care (Participant SS: lines 89-92)"

Collaboration with Gynecologists	Interdisciplina ry Communicatio n  Referral	"This is an interdisciplinary approach to resolve the issue all professionals need to work together as multiple factors become the cause of the problem (Participant RR: lines 68-70)"  "Communication among colleagues from various disciplines are crucial in fertility care. Regular consultations and discussions allow for the exchange of insights, ensuring that our patients benefit from a comprehensive and integrated treatment plan (Participant RM: lines 67-70)"  "Collaboration with nutritionists, genetic counselors, and other experts ensures that our patients receive a multifaceted approach to fertility care that addresses all relevant for the patients quality of life (Participant RR: lines 120-122)"  "The decision to initiate referral processes is a collaborative one,
	Processes	involving discussions with the patient and other specialists. This ensures that the patient's unique needs are considered, and the referral aligns with their overall fertility care plan (Participant MR: lines 11-114)"
Coping Strategies	Resilience Building	"The long term treatment and their outcomes requires resilience building among professionals so that patients can deal accordingly.  The training or approach requires for dealing with infertility patients (Participant SS: lines 23-25)"
	Mind-Body Approaches	"The holistic approach refers approaches mind and body, it is not for the client or patients but also for professionals because if they are tackling with the healthy approach then the outcome would be positive (Participant RR: lines 156-158)"
Cultural Considerations	Cultural Competence	"It requires from professionals to adapt our communication style, treatment plans, and overall approach to align with the values and preferences of individuals and couples (Participant RM: lines 94-96)"  "Professionals like us the commitment to cultural competence extends beyond surface-level awareness. It involves ongoing education and self-reflection to ensure that we are attuned to the nuances of diverse cultural perspectives related to fertility and
	Stigma and Shame	reproductive health (Participant SS: lines 154-157)""  "By acknowledging and actively working against these societal barriers, professionals aim to empower individuals and couples to openly discuss and address their fertility challenges (Participant RR: lines 198-201)"  "This is the most important aspect specially in the male participants with the problem and also the reason that don't follow up with the treatment (Participant RM: lines 116-117)"  "Our role in mitigating stigma and shame goes hand in hand with advocacy. By advocating for open conversations about infertility and challenging societal misconceptions, we contribute to a broader cultural shift toward understanding and compassion (Participant MR: lines 201-205)"

# **Summary of the Findings**

The summary of the findings determines the two professional's perspectives. One is Gynacologist and the other is mental health professionals while dealing with the patients suffering in the infertility. The gynacologist interview highlights the following themes these are;

# **Theme 1: Emotional Impact**

According to the professionals there is a great influence while dealing with the infertility problem. The emotional attachment and emotional exhaustion are the feelings that professionals often suffer

while treating the other patients. The main reason as it is not only the struggle of the patient but also it's the struggle of the professionals and emotions are like roller coaster that impacts the individual.

# Theme II: Diagnostic and Treatment Challenges

In the theme it has been indicated that Gynecologists professionals may grapple with ethical dilemmas related to the use of assisted reproductive technologies, embryo selection, and other complex treatment decisions. The complexity of the treatment and phases often leads towards the challenges in effectively communicating diagnoses, treatment options, and prognosis to patients, including managing expectations and uncertainties.

#### **Theme III: Patient-Centered Care**

Professionals highlighted that the approach of treatment is always a centered care in which often sympathy and empathy are the two main components, often balancing happens. Thus the importance of providing emotional support to patients and the challenges in balancing empathy with professional detachment is very essential element to be consider. Furthermore, dealing with the need for culturally sensitive approaches to infertility care, considering diverse backgrounds and belief systems of patients or couples are also the elements that become the professionals sometimes hectic as every patient consult with the unique needs.

# Theme IV: Professional Burnout and Coping

The professionals felt burn out such as the emotional weight of unsuccessful treatments, demanding schedules, and high patient expectations not only coming towards the patents but also the managerial role become the cause of problem. Furthermore, the professionals often considered to the exploration of coping mechanisms employed by gynecologists, including peer support, self-care practices, and seeking psychological assistance that somehow effects their scheduled routine but it's essential for own well-being.

# Theme V: Training and Education

The gynecology profession is the profession requires continuous learning support to equip with knowledge and evidence based practices. The Recognition of gaps in medical education, emphasizing the need for more comprehensive training in addressing the emotional and ethical dimensions of infertility care. The importance of ongoing professional development to stay updated on evolving technologies and ethical standards in reproductive medicine but due to the some hectic schedule professionals sometime missed these opportunists.

These are the gynacologist professional experiences, other than this mental health professional who were working with the infertility patients are being interviewed and explore the below mentioned themes these are;

#### Theme I: Patient Emotional Well-being

The exploration of the psychological impact of Infertility on individuals and couples, including anxiety, depression, and coping mechanisms are the main symptoms could ve observed Counseling Needs: Identification of specific counseling needs among individuals and couples undergoing fertility treatments.

#### Theme II: Collaboration with Gynecologists

The importance of effective communication and collaboration between mental health professionals and gynecologists to address both the physical and emotional aspects of infertility. The treatment allows to work as a collaborative approach, so all the professionals will be on the same page. The barriers of communication sometimes considered a problem in the treatment phase.

## **Theme III: Coping Strategies**

The coping strategies and dealing with stressors also being implemented by the professionals while dealing with the mental health problems. Further, the patients also require coping strategies to navigate the emotional challenges associated with infertility.

#### **Theme IV: Cultural Considerations**

The one main important aspect is to understanding the importance of cultural competence when providing mental health support to individuals from diverse backgrounds. Furthermore, Addressing the stigma and shame often associated with infertility and its impact on mental health.

#### **Discussion**

The study concludes that the patients who are being treated with the problem of infertility become the cause of the professional emotional disturbance as well as patients are coming with stigma and feeling of loneliness. The studies indicated that experineces with different couples or individuals effect the own professional's quality of life (Gemmill et al., 2021).

The studies indicated that there are multiple factors on an emerging body of evidence around the factors that influence perceived risk of becoming pregnant (Polis, Moore, et al., 2020), as well as research that examines how perceived risk of becoming pregnant may influence contraceptive use (Bell and Gemmill, 2021), ultimately influence the individual well-being which spread beyond the circle. Furthermore, professional burnout remains a critical concern in fertility care, given the emotional intensity of the field. The discussion highlights burnout triggers such as heavy workloads and the emotional weight of unsuccessful treatments. Gynecologists employ coping mechanisms like self-care practices, peer support, and resilience-building strategies to mitigate burnout risks and maintain their well-being as well as their family well-being.

Furthermore, evidence indicated the importance of holistic care, Interdisciplinary collaboration emerges as a key theme, emphasizing the importance of seamless communication with professionals from various disciplines (Dewani et al., 2023). It has been indicated that gynecologists underscore the need for collaborative care, ensuring patients benefit from a holistic approach to fertility treatment (Moon et al., 2023). In some of the studies, efficient referral processes are identified as vital in providing timely and specialized care tailored to the unique needs of each patient (Burns et al., 2018). Thus a long term and quantitative psychological assessment will be require for in depth analysis.

#### **Limitations and Future Directions**

It has been indicated that there is the potential for bias in self-reporting such as personal perspective and subjectivity, the discussion paves the way for future research. Proposals for further investigation include exploring the long-term impact of counseling services, assessing the effectiveness of cultural competence training for healthcare providers, and examining the role of support groups in reducing stigma.

# Conclusion

In conclusion, the discussion reflects on the complexities inherent in fertility care and the multifaceted strategies employed by gynecologists to address emotional, cultural, and professional challenges. The findings underscore the importance of patient-centered, culturally competent, and collaborative approaches in enhancing the overall quality of fertility care.

# References

1. American College of Obstetricians and Gynecologists' Committee on Gynecologic Practice, & American Society for Reproductive Medicine. (2019). Infertility workup for the women's health specialist: ACOG committee opinion, number 781. Obstetrics & Gynecology133(6), e377–e384

- 2. Braun, V., & Clarke, V. (2022). Conceptual and design thinking for thematic analysis. Qualitative Psychology, 9(1), 3.
- 3. Burns, K.C., Hoefgen, H., Strine, A. and Dasgupta, R., 2018. Fertility preservation options in pediatric and adolescent patients with cancer. Cancer, 124(9), pp.1867-1876.
- 4. Dewani, D., Karwade, P. and Mahajan, K.S., 2023. Uterine Transplantation and Fertility Preservation: A Hopeful Horizon for Cancer Survivors. Cureus, 15(12).
- 5. Harper, J. C., Phillips, S., Biswakarma, R., Yasmin, E., Saridogan, E., Radhakrishnan, S., Davies, M. C., & Talaulikar, V. (2022). An online survey of premenopausal women to determine their attitudes and knowledge of the menopause. Women's Health, 18, 17455057221106890.
- 6. Hoff, H. S., Crawford, N. M., & Mersereau, J. E. (2018). Screening for psychological conditions in infertile women: Provider perspectives. Journal of Women's Health, 27(4), 503–509.
- 7. Kiemen, A., Czornik, M., & Weis, J. (2023). How effective is peer-to-peersupport in cancer patients and survivors? A systematic review. Journal of Cancer Research and Clinical Oncology,149(11),9461–9485
- 8. Lazarus, R. S., & Folkman, S. (1984). Stress, appraisal, and coping. SpringerPub. Co
- 9. Lennox, R., Lamarche, L., & O'Shea, T. (2021). Peer support workers as a bridge: a qualitative study exploring the role of peer support workers in the care of people who use drugs during and after hospitalization. Harm Reduction Journal, 18(1), 1-9.
- 10. Moon, K., Alvarado, G., Hy, J., & McNally, S. (2023). Implementing a Virtual Collaborative Behavioral Health Care Program in an Obstetrics and Gynecology Practice [ID: 176661]. Obstetrics & Gynecology, 141(5), 92S-93S.
- 11. Pal, L., Bevilacqua, K., & Santoro, N. F. (2010). Chronic psychosocial stressors are detrimental to ovarian reserve: A study of infertile women. Journal of Psychosomatic Obstetrics and Gynaecology,31(3),130–139.
- 12. Pastore, L.M., Christianson, M.S., Stelling, J., Kearns, W.G., & Segars, J.H. (2017). Reproductive ovarian testing and the alphabet soup of diagnoses: DOR, POI, POF, POR, and FOR. Journal Of Assisted Reproduction And Genetics, 35(1), 17–23.
- 13. Practice Committee of the American Society for Reproductive Medicine.(2013). Definitions of infertility and recurrent pregnancy loss: Acommittee opinion. Fertility and Sterility,99(1), 63. https://doi.org/10.1016/j.fertnstert.2012.09.023
- 14. Rasool, S., & Shah, D. (2017). Fertility with early reduction of ovarianreserve: The last straw that breaks the camel's back. Fertility Research and Practice, 3(1), 15
- 15. World Health Organization. (2022). International classification of diseases for mortality and morbidity statistics: Female infertility (11th ed.) http://id.who.int/icd/entity/1237004558
- 16. Wiltshire, G., & Ronkainen, N. (2021). A realist approach to thematic analysis: making sense of qualitative data through experiential, inferential and dispositional themes. Journal of Critical Realism, 20(2), 159-180.
- 17. Wu, J., Gale, C. P., Hall, M., Dondo, T. B., Metcalfe, E., Oliver, G., Batin, P. D., Hemingway, H., Timmis, A., & West, R. M. (2018). Editor's choice—Impact of initial hospital diagnosis on mortality foracute myocardial infarction: A national cohort study. European Heart Journal: Acute Cardiovascular Care, 7(2), 139–148.
- 18. Wiltshire, G., & Ronkainen, N. (2021). A realist approach to thematic analysis: making sense of qualitative data through experiential, inferential and dispositional themes. Journal of Critical Realism, 20(2), 159-180.