

**“GENDER DIFFERENCES IN DEPRESSION AND COPING
AMONG COUPLES GOING THROUGH INFERTILITY
TREATMENT”**

By

REG NO: BQ0122002

Dissertation

Submitted to the

KLE University Belagavi, Karnataka

In partial fulfilment of the requirements

DOCTOR OF MEDICINE (M.D)

In

PSYCHIATRY

DEPARTMENT OF PSYCHIATRY

J.N. MEDICAL COLLEGE, NEHRU NAGAR

BELAGAVI -590010

SEPT 2025/ OCT 2025

**KLE ACADEMY OF HIGHER EDUCATION AND RESEARCH,
BELAGAVI, KARNATAKA**

ENDORSEMENT

This is to certify that the dissertation entitles “**GENDER DIFFERENCES IN DEPRESSION AND COPING AMONG COUPLES GOING THROUGH INFERTILITY TREATMENT**” is a Bonafide research work done by **REG NO. BQ0122002**



DR. S.S CHATE M.D, DPM
Professor and Head,
Department of Psychiatry
J. N. Medical College,
Nehru Nagar, Belagavi –590010

Date: 10/04/2025
Place: Belagavi

Dr. S .S. CHATE
Professor & Head
Dept. of Psychiatry
J.N. Medical College, BELAGAVI - 590 010
KMC Reg No. 48918



Dr. N.S. Mahantshetti MD Principal,
J. N. Medical College,
Nehru Nagar, Belagavi – 590010

PRINCIPAL
Jawaharlal Nehru Medical College
BELAGAVI

Date: 10/04/2025
Place: Belagavi

**KLE Academy of Higher Education & Research (Deemed to be
University), Belagavi, Karnataka**

UNDERTAKING

I, **Reg No BQ0122002**, hereby declare that the information and data mentioned in my dissertation '**GENDER DIFFERENCES IN DEPRESSION AND COPING AMONG COUPLES GOING THROUGH INFERTILITY TREATMENT**' belongs to me and is original. I am aware of the definition of *Plagiarism* as detailed below:

- An act or an instance of using or closely imitating the language and thoughts of another author without authorization and the representation of that author's work as one's own, as by not crediting the original author.
- A piece of writing or other work reflecting such unauthorized work or imitation.
- The deliberate or reckless representation of another's words, thoughts or ideas as one's own without attribution in connection with submission of academic work, whether graded or otherwise.

I hereby declare that the presentation prepared by me is an original one and does not involve plagiarism anywhere. In case at a later stage, it is found that I have indulged in plagiarism, then, I am solely responsible for the same and the institution is at liberty to take any disciplinary action against me including cancellation of dissertation or any other penalties imposed by the university.

Date: 10/04/2025

Place: Belagavi



Reg No: BQ0122002

PLAGIRISM CLERANCE



JAWAHARLAL NEHRU MEDICAL COLLEGE

(A constituent unit of KLE Academy of Higher Education & Research Deemed-to-be-University)

(Recognized by National Medical Commission, New Delhi)

Accredited 'A+' Grade by NAAC (3rd Cycle)

Placed in Category 'A' by MoE (GoI)



Nehru Nagar, Belagavi- 590 010, Karnataka, INDIA

0831 - 2471350

0831 - 2470759

www.inmc.edu

principal@inmc.edu

Ref No: MDC/PG/

Date: 11-04-2025

"ACCEPTANCE LETTER"

The softcopy of thesis entitled: "GENDER DIFFERENCES IN DEPRESSION AND COPING AMONG COUPLES GOING THROUGH INFERTILITY TREATMENT" has been submitted for anti-plagiarism check through Turnitin software. The scan has been carried out and the scanned output reveals a match percentage of 02% which is within the acceptable limits of 10% as per the guidelines given by UGC.

Guide.



Dr. (Mrs.) N.S. Mahantashetti.
Chairperson-Antiplagiarism Committee &
Principal,
J. N. Medical College, Belagavi.

To,
Reg. No. BQ0122002
Postgraduate Student,
2022-23 Batch,
Department of Psychiatry
J. N. Medical College, Belagavi.

ETHICAL CLERANCE



K.L.E. ACADEMY OF HIGHER EDUCATION AND RESEARCH
(Deemed - to - be - University)

Accredited 'A+' Grade by NAAC in (3rd Cycle) Placed in Category 'A' by MHRD (GoI)

JNMC INSTITUTIONAL ETHICS COMMITTEE
JAWAHARLAL NEHRU MEDICAL COLLEGE,
NEHRU NAGAR, BELAGAVI-590010 (KARNATAKA-INDIA)

Website: <http://www.jnmc.edu>
E-Mail : dome@jnmc.edu

Phone: (+ 91-(0)831 Office : 2472550
Principal: 2471701
Fax No. +91 (0)831 - 2470759

Ref No.MDC/JNMCIEC/ 162

Date: 21/03/2023

To,

REG NO: BQ0122002
PG Student in Psychiatry
J. N. Medical College,
BELAGAVI.

Sub: Institutional Ethical Clearance for the study.

With reference to the above, we wish to inform you that your proposed research project titled
**"GENDER DIFFERENCES IN DEPRESSION AND COPING AMONG COUPLES
GOING THROUGH INFERTILITY TREATMENT"**, is ethical and justifiable. The proposed
research project has been cleared by the JNMC Institutional Ethics Committee.


(Dr. Smita Sonoli)

Member Secretary
JNMC Institutional Ethics Committee
J.N.Medical College, Belagavi.



(Dr. Harsha Hegde)

Chairman,
JNMC Institutional Ethics Committee
J.N.Medical College, Belagavi

ABSTRACT

INTRODUCTION: Infertility is a global public health issue affecting approximately 10-15% of couples and is associated with significant psychological morbidity. The burden of infertility extends beyond biological implications, often resulting in emotional distress particularly depression. Gender- specific sociocultural expectations and differences in coping strategies further influence the psychological outcomes of affected individuals.

OBJECTIVES: To assess gender differences in the prevalence and phenomenology of depression and to compare coping strategies among couples seeking infertility treatment.

METHODS: A cross- sectional descriptive study was conducted among 240 individuals (120 couples). Prevalence and phenomenology of depression were assessed using the Patient health questionnaire -9 (PHQ-9) and coping strategies were evaluated using the Brief COPE scale.

RESULTS: Depression was significantly more prevalent among females (59.2%) than males (32.5%) ($p < 0.001$), and women had 3 times more odds of developing depression compared to their male counterparts. Phenomenologically, women reported higher rates of anhedonia (31.7% vs 16.7%), appetite disturbances (31.7% vs 18.3%), sleep disturbances (45% vs 32.5%), poor concentration (14.2% vs 1.7%), and suicidal ideations (11.7% vs 1.7%) compared to their male counterparts. Maladaptive coping strategies were more frequently employed by women (57.75%) compared to men (18%) ($p < 0.05$), whereas adaptive coping was reported in 42.25% of females and 82% of males.

CONCLUSION: Women had higher prevalence of depression than their spouses. Most of the symptoms of depression were also more prevalent in women. Further, a greater number of women were observed to resort to maladaptive coping strategies, compared to their spouses.

Keywords: Infertility, Gender differences, Depression, Coping strategies, PHQ-9, Brief COPE, Psychological morbidity

ACRONYMS

PHQ-9	patient health questionnaire-9
DSM-IV	Diagnostic and statistical manual of mental disorders-4
COPE	Coping orientation to problems experienced
IVF	Invitro fertilization
IUI	Intrauterine insemination
ICSI	Intracytoplasmic sperm injection
HPA	Hypothalamic- pituitary- adrenal- axis
HPG	Hypothalamic- pituitary- gonadal- axis
EFCT	Emotionally focused couple therapy
CBT	Cognitive behavioural therapy
MBSR	Mindfulness based stress reduction
CBT-I	Cognitive behavioural therapy for insomnia

TABLE OF CONTENTS

SR.NO.	CONTENTS	PAGE NO.
1	INTRODUCTION	1-4
2	OBJECTIVES	5
3	REVIEW OF LITERATURE	6-34
4	METHODOLOGY	35-40
5	RESULTS	41-62
6	DISCUSSION	63-82
7	STRENGTHS AND LIMITATIONS	83
8	CONCLUSION	84
9	SUMMARY	85-86
10	BIBLIOGRAPHY	87-99
11	ANNEXURES	
12	ANNEXURE 1: CONSENT FORM	100-116
13	ANNEXURE 2: PROFORMA	117-119
14	ANNEXURE 3: TOOLS AND MASTER CHART	120-124

LIST OF TABLES

TABLE. NO	PARTICULARS	PAGE.NO
1	MEAN AGE OF PARTICIPANTS	41
2	SOCIO ECONOMIC CLASS DISTRIBUTION OF PARTICIPANTS	41-42
3	OCCUPATION OF THE STUDY PARTICIPANTS	42
4	NICOTINE USE AMONG THE PARTICIPANTS	43
5	DURATION OF INFERTILITY TREATMENT OF STUDY PARTICIPANTS	43
6	PREVALENCE OF DEPRESSION IN MALE AND FEMALE PARTICIPANTS	44
7	COMPARISON OF PROPORTION OF PARTICIPANTS REPORTING DEPRESSION ACROSS THE GENDERS	45
8	COMPARISON OF PROPORTION OF PARTICIPANTS REPORTING THE SYMPTOM OF PERSISTENT LOW MOOD ACROSS THE GENDERS	46
9	COMPARISON OF PROPORTION OF PARTICIPANTS REPORTING THE SYMPTOM OF ANHEDONIA ACROSS THE GENDERS	47
10	COMPARISON OF PROPORTION OF PARTICIPANTS REPORTING THE SYMPTOM OF EASY FATIGUABILITY ACROSS THE GENDERS.	49
11	COMPARISON OF PROPORTION OF PARTICIPANTS REPORTING THE SYMPTOM OF APPETITE DISTURBANCES ACROSS THE GENDERS.	50
12	COMPARISON OF PROPORTION OF PARTICIPANTS REPORTING THE SYMPTOM OF SLEEP DISTURBANCES ACROSS THE GENDERS.	52

13	COMPARISON OF PROPORTION OF PARTICIPANTS REPORTING THE SYMPTOM OF POOR CONCENTRATION ACROSS THE GENDERS.	53
14	COMPARISON OF PROPORTION OF PARTICIPANTS REPORTING THE SYMPTOM OF DEATH WISHES ACROSS THE GENDERS.	55
15	COMPARISON OF PROPORTION OF PARTICIPANTS REPORTING THE SYMPTOM OF GUILT FEELINGS ACROSS THE GENDERS.	56
16	COMPARISON OF PROPORTION OF PARTICIPANTS REPORTING THE SYMPTOM OF ANXIOUSNESS ACROSS THE GENDERS.	58
17	COMPARISON OF COPING STRATEGIES ACROSS THE GENDERS AS PER BRIEF COPE SCALE	60
18	COMPARISON OF COPING ACROSS THE GENDERS AS PER BRIEF COPE (ODDS RATIO)	61

LIST OF FIGURES

SR.NO.	PARTICULARS	PAGE NO.
1	PREVALENCE OF DEPRESSION ACROSS THE GENDERS	45
2	COMPARISON OF PHENOMENOLOGY OF LOW MOOD ACROSS THE GENDERS.	47
3	COMPARISON OF PHENOMENOLOGY OF REPORTED ANHEDONIA ACROSS THE GENDERS.	48
4	COMPARISON OF PHENOMENOLOGY OF REPORTED EASY FATIGUABILITY ACROSS GENDERS.	50
5	COMPARISON OF PHENOMENOLOGY OF REPORTED APPETITE DISTURBANCES ACROSS GENDERS.	51
6	COMPARISON OF PHENOMENOLOGY OF REPORTED SLEEP DISTURBANCES ACROSS THE GENDERS.	53
7	COMPARISON OF PHENOMENOLOGY OF REPORTED CONCENTRATION DIFFICULTIES ACROSS THE GENDERS.	54
8	COMPARISON OF PHENOMENOLOGY OF REPORTED DEATH WISHES ACROSS THE GENDERS.	56
9	COMPARISON OF PHENOMENOLOGY OF REPORTED GUILT FEELINGS ACROSS THE GENDERS.	57
10	COMPARISON OF PHENOMENOLOGY OF REPORTED ANXIOUSNESS ACROSS THE GENDERS	59
11	COMPARISON OF COPING SKILLS ACROSS THE GENDERS.	61

INTRODUCTION

Infertility is a growing global concern that impacts millions of couples, with approximately 10-15% of couples worldwide experiencing challenges in conceiving. This issue not only poses significant medical implications but also carries profound psychological and social consequences. The inability to conceive often disrupts life plans and triggers a cascade of emotional responses, including anxiety, stress, and depression. Cultural, societal, and familial expectations further amplify the distress, making infertility a deeply personal and societal issue that warrants greater attention.[1]

The psychological toll of infertility is profound, as couples face repeated cycles of hope and disappointment during treatment. Research has consistently shown that infertility is associated with higher rates of psychological distress compared to the general population. Depression and anxiety are the most common psychological consequences, with many individuals experiencing feelings of isolation, helplessness, and inadequacy. The stigma surrounding infertility often exacerbates these emotions, leading to a sense of alienation from peers, family, and society.[2]

Women often bear a disproportionate share of the psychological burden due to societal expectations regarding motherhood and their direct involvement in fertility treatments. Hormonal treatments, invasive medical procedures, and repeated failures can lead to a sense of guilt and loss of self-worth. Men, while often less directly involved in the physical aspects of infertility,

experience their own set of psychological challenges, including societal pressure to demonstrate virility and provide emotional support for their partners. These gender-specific challenges highlight the importance of addressing the psychological impact of infertility holistically.[3]

Cultural and societal norms play a significant role in shaping the psychological experiences of couples dealing with infertility. In many cultures, childbearing is viewed as a fundamental aspect of adult identity and marital fulfillment. Women are often subjected to blame and criticism, when a couple faces infertility, irrespective of the underlying medical cause. Men, on the other hand, may experience shame and embarrassment if diagnosed with fertility issues, leading to a reluctance to seek help or discuss their feelings openly. These cultural dynamics add layers of complexity to the psychological impact of infertility.[4]

The role of coping mechanisms in managing the emotional challenges of infertility is critical. Effective coping strategies can help individuals and couples navigate the emotional ups and downs associated with treatment. However, gender differences in coping styles can sometimes create tension within relationships. For example, women are more likely to seek emotional support and express their feelings, whereas men often prefer problem-solving approaches, distractions or substance use such as nicotine and alcohol. These differences can lead to misunderstandings and feelings of dissatisfaction within couples if not addressed properly.[5]

Infertility treatments themselves are demanding, both physically and emotionally. The financial costs, time commitment, and uncertainty of outcomes add to the psychological burden. Women undergoing treatments such as in vitro fertilization (IVF) often report heightened emotional distress due to hormonal fluctuations, physical discomfort, and the invasive nature of procedures. Men, while not typically undergoing these treatments directly, experience stress related to supporting their partners and managing the financial and logistical demands of treatment. These stressors highlight the need for integrated psychological support as part of infertility care.[6]

The social stigma surrounding infertility is another significant factor that affects the mental health of couples. In many communities, infertility is viewed as a failure to fulfill expected gender roles, leading to feelings of inadequacy and exclusion. Women, in particular, often face criticism and judgment from extended family and society, which can exacerbate feelings of depression and anxiety. Men may also experience societal pressure, but their struggles are often less visible due to cultural norms that discourage emotional expression. Addressing these stigmas is essential to improving the psychological well-being of couples seeking fertility treatments.[7]

The psychological impact of infertility is not limited to the individual level but also affects the dynamics of relationships. Couples often report increased tension, communication breakdowns, and feelings of dissatisfaction during infertility treatment. Gender differences in emotional expression and coping strategies can sometimes lead to conflicts and misunderstandings, further

straining the relationship. However, with appropriate support, many couples find that facing infertility together can strengthen their bond and foster a deeper sense of mutual understanding.[8]

Despite the significant emotional challenges, infertility also presents an opportunity for personal growth and resilience. Many individuals and couples report gaining a greater appreciation for their relationship, learning to communicate more effectively, and developing new perspectives on life priorities. Counseling and psychological support play a crucial role in helping couples navigate this journey, enabling them to build resilience and find meaning despite the challenges. These interventions are particularly effective when tailored to address gender-specific needs and concerns. [9,10]

This study focuses on understanding the gender differences in depression and coping skills among couples undergoing infertility treatment. By examining the prevalence and phenomenology of depression and comparing coping strategies across genders, the research aims to provide insights into the unique psychological needs of men and women. The findings of this study are expected to contribute to the development of gender-sensitive psychological interventions and support systems, ultimately improving the emotional well-being and treatment outcomes for couples facing infertility.

OBJECTIVES OF THE STUDY

1. To assess the gender differences in terms of prevalence and phenomenology of depression amongst couples seeking infertility treatment.
2. To compare the coping skills across the genders amongst couples seeking infertility treatment.

REVIEW OF LITERATURE

2.1 Neuroendocrinology of Stress and Depression in Infertility

The neuroendocrinology of stress and depression in infertility involves a complex interaction between the central nervous system, endocrine system, and emotional regulation mechanisms. Stress, a common response to the challenges of infertility, activates the hypothalamic-pituitary-adrenal (HPA) axis, leading to the release of corticotropin-releasing hormone (CRH) from the hypothalamus. CRH stimulates the anterior pituitary to release adrenocorticotropic hormone (ACTH), which in turn prompts the adrenal glands to secrete cortisol, the primary stress hormone. Elevated cortisol levels, while adaptive in acute situations, become detrimental when chronic, as they disrupt the normal functioning of the hypothalamic-pituitary-gonadal (HPG) axis, which is essential for reproductive health. In women, chronic stress suppresses gonadotropin-releasing hormone (GnRH) secretion, reducing the levels of luteinizing hormone (LH) and follicle-stimulating hormone (FSH). This hormonal imbalance impairs follicular development, ovulation, and endometrial receptivity, thereby contributing to infertility.[11]

In men, the impact of chronic stress on the HPG axis manifests as reduced testosterone production and impaired spermatogenesis. Cortisol inhibits the secretion of GnRH, which decreases LH stimulation of Leydig cells in the testes, leading to reduced testosterone synthesis. Lower testosterone levels compromise the production and maturation of sperm within the seminiferous

tubules, reducing both sperm count and quality. Additionally, stress-induced hyperactivation of the sympathetic nervous system increases the production of reactive oxygen species (ROS), which damage sperm DNA and impair motility. This dual impact of neuroendocrine dysregulation and oxidative stress creates a hostile environment for male reproductive health.[12]

Depression, often co-occurring with stress in individuals undergoing infertility treatment, further exacerbates neuroendocrine dysfunction. Depression is associated with dysregulation of the HPA axis, characterized by hypercortisolism and impaired feedback inhibition. Prolonged exposure to elevated cortisol levels damages the hippocampus, a brain region involved in mood regulation and HPA axis suppression, creating a vicious cycle of chronic stress and depressive symptoms. The interplay between depression and infertility is bidirectional, as the emotional distress of infertility contributes to the development of depressive symptoms, while pre-existing depression may increase the likelihood of infertility through neuroendocrine disruptions.[13]

The role of serotonin, a key neurotransmitter in mood regulation, is also significant in the context of infertility-related depression. Reduced serotonin levels in the central nervous system are a hallmark of depression, and this deficiency affects reproductive health through multiple pathways. Serotonin influences the secretion of GnRH, and its deficiency can impair the normal functioning of the HPG axis. Moreover, serotonin impacts uterine contractility and vascular tone, which are critical for implantation and early pregnancy maintenance. The dysregulation of serotonin in

depression underscores the interconnectedness of mental health and reproductive physiology in the context of infertility.[14]

In women undergoing infertility treatment, the neuroendocrine impact of stress and depression is particularly pronounced due to the interplay between psychological distress and hormonal therapies. The administration of exogenous hormones, such as gonadotropins, during assisted reproductive techniques (ART) can amplify the emotional burden by causing mood swings, irritability, and anxiety. These emotional fluctuations, combined with the uncertainty and high stakes of infertility treatment, heighten the activation of the HPA axis and exacerbate depressive symptoms. Furthermore, the financial, physical, and relational stressors associated with infertility treatment compound the psychological burden, creating a multifaceted challenge for women's mental health.[15]

In men, infertility-related stress and depression often manifest differently, with a tendency toward internalizing emotions and adopting avoidance-based coping mechanisms, which discourage the expression of vulnerability. However, the neuroendocrine consequences of this emotional suppression are significant, as chronic stress and unresolved emotional distress perpetuate HPA axis hyperactivity and testosterone suppression. Additionally, depression in men is associated with reduced dopamine activity in reward pathways, contributing to feelings of hopelessness and

reduced motivation, which can further impair their engagement with infertility treatment and coping strategies.[16]

The neuroendocrinology of stress and depression in infertility is further complicated by the role of inflammatory processes. Chronic stress and depression are associated with elevated levels of pro-inflammatory cytokines, such as interleukin-6 (IL-6) and tumor necrosis factor-alpha (TNF- α). These cytokines disrupt normal reproductive processes by impairing follicular development, oocyte quality, and endometrial receptivity in women, and by reducing sperm quality and motility in men. The interaction between the immune system and neuroendocrine function creates a feedback loop that perpetuates both infertility and psychological distress, necessitating interventions that address both inflammation and emotional well-being.[17]

The brain's limbic system, particularly the amygdala and prefrontal cortex, plays a central role in the neuroendocrinology of stress and depression in infertility. The amygdala is involved in processing emotional responses, including fear and anxiety, while the prefrontal cortex regulates these responses through inhibitory control. Chronic stress and depression weaken the connectivity between these regions, leading to heightened emotional reactivity and impaired stress regulation. This dysregulation of the limbic system contributes to the persistence of negative emotional states and the amplification of neuroendocrine dysfunction in individuals experiencing infertility.[18]

Sleep disturbances, commonly reported in individuals with infertility-related stress and depression, further exacerbate neuroendocrine dysfunction. Insufficient or poor-quality sleep disrupts the normal diurnal rhythm of cortisol secretion, leading to HPA axis dysregulation. Sleep deprivation also impairs the secretion of melatonin, a hormone that modulates reproductive function and acts as a powerful antioxidant. The combined effects of altered cortisol and melatonin levels create a suboptimal environment for reproductive processes, highlighting the importance of addressing sleep disturbances as part of infertility treatment.[19]

The neuroendocrine basis of stress and depression in infertility underscores the need for integrated approaches to treatment. Psychological interventions, such as cognitive-behavioral therapy (CBT) and mindfulness-based stress reduction (MBSR), have been shown to mitigate HPA axis hyperactivity and improve emotional well-being. Pharmacological treatments, including selective serotonin reuptake inhibitors (SSRIs), can alleviate depressive symptoms and partially restore neuroendocrine balance, although their use must be carefully considered in the context of infertility treatment. By addressing the interconnected pathways of stress, depression, and reproductive dysfunction, these interventions offer a holistic approach to improving outcomes for individuals and couples navigating infertility.[20]

2.2 Psychological Impact of Infertility

Infertility has profound psychological implications for individuals and couples, often resulting in emotional distress that can persist throughout the infertility journey. The inability to conceive, despite repeated efforts, challenges a person's sense of identity, self-worth, and life expectations. For many, becoming a parent is not just a personal aspiration but a societal expectation, deeply intertwined with cultural, familial, and social norms. The psychological toll of infertility begins as soon as individuals recognize difficulties in conceiving and tends to intensify with prolonged efforts or failed treatments. Women are particularly vulnerable to experiencing heightened emotional distress due to societal pressures and their direct involvement in medical treatments, which may amplify feelings of guilt, shame, and inadequacy.[21]

The emotional experience of infertility is marked by feelings of loss, grief, and failure. Couples often perceive infertility as a loss of control over their lives and future plans. Grieving the loss of the anticipated biological child becomes a central emotional challenge, with individuals cycling through feelings of denial, anger, and depression. Women, more than men, report feelings of deep sadness, anxiety, and hopelessness due to the biological and emotional centrality of childbearing. Men, although less likely to express emotions openly, also experience stress and frustration, often rooted in societal expectations of masculinity and their role as providers or protectors within the family unit. These unspoken emotions can compound over time, leading to internalized stress and emotional withdrawal.[22]

Infertility is also associated with high levels of anxiety and depression. Anxiety often arises from uncertainty surrounding the cause of infertility, the outcome of treatments, and the fear of permanent childlessness. This anxiety is further compounded by the physical and emotional demands of medical interventions, such as hormonal therapies, invasive procedures, and repeated cycles of hope and disappointment. Depression, on the other hand, stems from the pervasive sense of loss, isolation, and diminished self-esteem. Individuals experiencing infertility often feel excluded from societal norms and social gatherings, such as baby showers and family events, further deepening their sense of isolation and inadequacy.[23]

The psychological impact of infertility is not limited to individuals but extends to their relationships. Couples undergoing infertility treatment often experience heightened relational stress and conflict. Differences in coping styles, communication patterns, and emotional responses to infertility can create misunderstandings and tension. For instance, women may seek emotional support and express their distress more openly, while men may adopt problem-focused coping strategies or avoid discussing the issue altogether. These differences can lead to feelings of emotional disconnect and dissatisfaction within the relationship, particularly if one partner perceives the other as being less invested or emotionally supportive.[24]

The societal stigma surrounding infertility exacerbates its psychological impact. In many cultures, infertility is perceived as a failure to fulfill traditional gender roles, with women bearing the brunt

of societal blame. They are often subject to scrutiny, judgment, and unsolicited advice from family and community members, which amplifies their emotional burden. Men, while less publicly scrutinized, may face subtle societal challenges, including questions about their masculinity or ability to provide for a family. This stigma creates an additional layer of emotional distress, forcing many couples to conceal their struggles and avoid seeking social support, thereby increasing their sense of isolation.[25]

The psychological toll of infertility is further compounded by the financial and logistical demands of treatment. Assisted reproductive techniques, such as in vitro fertilization (IVF) or intrauterine insemination (IUI), are often expensive, time-consuming, and physically exhausting. The repeated cycles of treatment, coupled with the uncertainty of outcomes, can lead to emotional exhaustion and burnout. The financial strain of these treatments often adds to the couple's stress, creating additional pressures that affect their emotional and relational well-being. For many, the emotional investment in treatment becomes a double-edged sword, as the hope for success intensifies the pain of failure.[26]

Despite the significant psychological challenges, infertility can also serve as a catalyst for personal growth and resilience. Many individuals report developing a deeper understanding of themselves, their values, and their relationships through their infertility journey. Couples often learn to communicate more openly and support one another more effectively, strengthening their bond in

the face of adversity. However, this positive transformation typically requires deliberate efforts to address the psychological impact of infertility, including seeking professional counseling, engaging in support groups, and adopting stress-reduction techniques. Psychological interventions, such as cognitive-behavioral therapy (CBT) or mindfulness-based stress reduction (MBSR), have been shown to be effective in helping individuals and couples navigate the emotional complexities of infertility. By providing coping strategies, fostering emotional expression, and addressing cognitive distortions, these interventions can alleviate the psychological burden and improve overall well-being.[27]

2.3 Gender-Specific Coping Mechanisms in Infertility

Coping mechanisms in infertility vary significantly across genders, shaped by biological, psychological, and sociocultural factors. Women and men often exhibit distinct approaches to managing the stress and emotional toll of infertility, with women typically employing emotion-focused coping strategies while men lean toward problem-focused approaches. Women are more likely to seek emotional support from family, friends, and support groups, openly sharing their feelings and experiences. This reliance on social networks helps women process their emotions but can also expose them to unsolicited advice and judgment, which may intensify their stress. Men, on the other hand, often avoid discussing their emotions, opting instead to distract themselves through work, hobbies, or other activities.[28]

Emotion-focused coping strategies used by women often include expressing their feelings through journaling, therapy, or discussions with supportive individuals. These strategies help women manage the emotional burden of infertility, but their effectiveness depends on the quality of social support they receive. Negative or dismissive reactions from others can exacerbate feelings of isolation and inadequacy. Women also tend to engage in cognitive reappraisal, reframing their infertility challenges in a more positive light. This process involves finding meaning or purpose in their struggles, such as viewing infertility as an opportunity for personal growth or strengthening their relationship with their partner. Men, in contrast, are less likely to engage in such reflective coping mechanisms and instead focus on tangible solutions, such as researching medical treatments or improving their physical health. While these problem-focused strategies can provide a sense of control, they may also lead to frustration if outcomes remain uncertain or beyond their control.[29]

The divergence in coping mechanisms often creates challenges within relationships, as partners may struggle to understand each other's emotional needs and coping styles. Women may perceive their partner's avoidance or stoicism as a lack of emotional investment, while men may feel overwhelmed by their partner's emotional expressions and interpret them as excessive or unproductive. These misunderstandings can lead to feelings of emotional disconnect and conflict, particularly if couples do not communicate openly about their needs and expectations. However, when couples actively work to bridge these differences, they often find that their unique coping

styles can complement and balance each other, fostering a stronger partnership in navigating infertility. [30,31]

Religious and spiritual beliefs also influence gender-specific coping mechanisms in infertility. Women are more likely to turn to spirituality or prayer as a source of comfort and hope, viewing their struggles as part of a larger divine plan. These practices can provide a sense of purpose and resilience, helping women cope with the uncertainty and emotional rollercoaster of infertility. Men, while less likely to engage in overtly spiritual practices, may find solace in ‘meaning-making frameworks or rituals that provide a sense of stability and control. Both genders, however, benefit from finding meaning in their experiences, as it helps them reframe their struggles and maintain a sense of hope and purpose.[32]

The impact of infertility on mental health also influences gender-specific coping mechanisms. Women are more likely to experience anxiety and depression during infertility, which can shape their coping strategies. For instance, women with high levels of anxiety may engage in excessive information-seeking behaviors, such as researching treatments or monitoring their ovulation cycles obsessively. While these behaviors provide a temporary sense of control, they can also perpetuate stress and create a cycle of emotional exhaustion. Men, on the other hand, may turn to avoidance-based coping strategies, such as distancing themselves emotionally from the issue or minimizing

its importance. While these strategies may reduce stress in the short term, they often lead to unresolved emotional conflicts and strain within the relationship.[33]

Gender-specific coping mechanisms in infertility highlight the need for tailored psychological interventions that address the unique needs of men and women. For women, interventions should focus on enhancing social support, building emotional resilience, and addressing cognitive distortions that contribute to feelings of guilt or inadequacy. Group therapy or support groups can provide a safe space for women to share their experiences and learn from others facing similar challenges. For men, interventions should emphasize the importance of emotional expression and encourage them to seek support from trusted individuals or professionals. Psychoeducation about the emotional impact of infertility can help men understand and validate their feelings, reducing the stigma associated with emotional vulnerability. By addressing the distinct coping needs of men and women, these interventions can improve individual well-being and strengthen the relational bond between partners.[34]

2.4 Role of Social and Cultural Factors in Infertility-Related Depression

Infertility-related depression is profoundly influenced by social and cultural factors, as societal norms and expectations often dictate the emotional experiences of individuals and couples facing infertility. In many cultures, the ability to conceive is closely tied to social status, gender roles, and familial expectations, leading to significant emotional distress when these expectations are unmet.

Women, in particular, often bear the brunt of societal blame for infertility, regardless of the underlying medical cause. This blame is deeply rooted in traditional gender roles that define a woman's worth by her ability to bear children. The social stigma associated with infertility results in feelings of shame, guilt, and inadequacy, which contribute significantly to the development of depression. [35,36]

The role of extended family in infertility-related depression is particularly significant in cultures where family structures are closely knit, and decisions about treatment and coping are influenced by collective opinions. In some cases, family members may place explicit pressure on couples to seek advanced fertility treatments or explore alternative solutions, such as adoption or surrogacy. While well-meaning, these suggestions can add to the emotional burden of the couple, especially if they are already struggling to come to terms with their situation. Additionally, the preferential treatment of couples with children within families can further alienate those dealing with infertility, reinforcing feelings of inadequacy and worthlessness.[37]

Men are also impacted by social and cultural factors, although their experiences often differ from those of women. In many cultures, masculinity is tied to virility and the ability to father children. Men who face infertility may feel their masculinity is called into question, leading to a sense of failure and diminished self-esteem. However, societal norms often discourage men from openly expressing their emotions or seeking support, which exacerbates their emotional struggles. This

internalization of distress often manifests as irritability, withdrawal, or substance use, which can mask the underlying depression and make it difficult to address. The societal tendency to focus primarily on women's infertility-related struggles further marginalizes men, leaving their emotional needs unaddressed.[38]

Religious and spiritual beliefs also shape the experience of infertility-related depression, often serving as both a source of comfort and a source of distress. For some individuals, faith provides a framework for understanding their struggles, offering hope and a sense of purpose. They may view infertility as part of a divine plan or a test of resilience, which can help them maintain emotional balance. However, for others, religious and cultural beliefs can intensify feelings of failure and guilt. In societies where children are seen as blessings from a higher power, infertility may be perceived as divine punishment or a sign of moral inadequacy. These interpretations can deepen depressive symptoms, particularly if individuals feel unsupported by their religious communities.[39]

Social support plays a dual role in mitigating or exacerbating infertility-related depression, depending on its quality and nature. Positive social support from family, friends, or support groups can provide emotional validation, reduce feelings of isolation, and foster resilience. Women often benefit from discussing their experiences with others facing similar challenges, as shared understanding creates a sense of solidarity. However, inadequate or negative support can worsen

emotional distress. Comments that trivialize the pain of infertility or imply blame can heighten feelings of despair and alienation. In some cases, couples may avoid seeking social support altogether due to fear of judgment or stigma, further isolating themselves and intensifying depressive symptoms.[40]

Cultural differences in coping with infertility-related depression also play a significant role. In collectivist societies, where family and community are central to individual identity, infertility is often viewed as a collective issue, and couples may face pressure to conform to societal expectations. This collectivist perspective can amplify feelings of failure, as individuals perceive their infertility as a source of shame not only for themselves but also for their families. In contrast, in more individualistic societies, the emphasis on personal autonomy may allow couples greater freedom to make decisions about their treatment and coping strategies. However, the lack of community support in such societies can also lead to feelings of isolation and loneliness, which contribute to depression.[41]

Addressing the role of social and cultural factors in infertility-related depression requires a multifaceted approach that considers the unique challenges faced by individuals within their cultural and societal context. Interventions should focus on reducing stigma, promoting awareness, and fostering a supportive environment for those dealing with infertility. Psychoeducational programs can help dispel myths and misconceptions about infertility, encouraging more

compassionate and understanding attitudes within families and communities. Counseling and support groups tailored to cultural sensitivities can provide individuals with a safe space to express their emotions, share experiences, and develop coping strategies. By addressing these social and cultural influences, such interventions can alleviate the psychological burden of infertility and improve overall emotional well-being.[42]

2.5 Interpersonal Dynamics in Couples Facing Infertility

Infertility has a profound impact on interpersonal dynamics in couples, as the stress and emotional burden of the condition often alter communication patterns, emotional intimacy, and relationship satisfaction. Couples facing infertility frequently encounter significant challenges in maintaining a healthy and supportive relationship. The emotional responses to infertility differ between partners, with women often expressing their distress more openly and seeking emotional support, while men may internalize their feelings and focus on practical problem-solving. These contrasting coping mechanisms can lead to misunderstandings and feelings of disconnect, as one partner may perceive the other as being emotionally unavailable or overly reactive. The resulting tension can strain the relationship, creating a cycle of conflict and miscommunication that exacerbates the emotional toll of infertility.[43]

The inability to conceive often disrupts the foundational dynamics of a relationship by challenging deeply held expectations about parenthood and family life. For many couples, the anticipation of

starting a family is a shared goal that strengthens their bond. When infertility arises, it can feel like a shared failure, creating feelings of guilt, frustration, and disappointment in both partners. Women may feel inadequate or blame themselves for not fulfilling their role as a mother, while men may feel helpless or frustrated at their inability to "fix" the problem. These feelings of inadequacy can lead to self-doubt and decreased self-esteem, which, in turn, affect the quality of interactions between partners.[44]

Communication is a critical factor in determining how couples navigate the challenges of infertility. Open and honest communication fosters mutual understanding and emotional support, allowing partners to share their fears, frustrations, and hopes. However, infertility often inhibits effective communication, as partners may struggle to articulate their emotions or fear burdening each other with their distress. Women may feel their emotions are dismissed or invalidated when their partners respond with logical solutions instead of empathy, while men may feel overwhelmed by their partner's emotional needs, leading to withdrawal. This breakdown in communication can create emotional distance and feelings of isolation, further complicating the relationship.[45]

The financial and logistical demands of infertility treatments add another layer of complexity to interpersonal dynamics. The high costs of assisted reproductive techniques (ART) and the physical toll of treatments, such as hormone injections and invasive procedures, can create stress and tension within the relationship. Disagreements about treatment options, financial priorities, or the

timing of interventions can escalate into conflicts, especially if partners have differing views on how to proceed. For some couples, the pressure to succeed in treatment can overshadow their emotional connection, reducing their relationship to a transactional pursuit of parenthood. This shift in focus can lead to feelings of resentment or dissatisfaction, as partners may feel their emotional needs are being neglected.[46]

Societal and cultural influences also shape the interpersonal dynamics of couples facing infertility. In many cultures, the ability to conceive is seen as a validation of the couple's union, and infertility is perceived as a collective failure. Couples may face external pressures from family and community members, who may offer unsolicited advice, impose expectations, or blame one partner for the condition. These societal pressures can create additional stress within the relationship, as partners may feel the need to defend themselves or conform to external demands. In some cases, cultural norms may lead to unequal blame or responsibility being placed on one partner, further exacerbating feelings of guilt and resentment.[47]

Despite these challenges, infertility can also serve as an opportunity for couples to strengthen their bond and develop resilience. Many couples report that navigating the emotional and logistical complexities of infertility together helps them build a deeper understanding of each other and their relationship. By working collaboratively to address their challenges, couples can develop stronger communication skills, enhance emotional intimacy, and reinforce their commitment to one another.

Supportive interventions, such as couples counseling or therapy, can play a crucial role in facilitating this process. These interventions provide a safe space for partners to express their emotions, validate each other's experiences, and develop effective coping strategies. By fostering empathy, understanding, and mutual support, couples can navigate the challenges of infertility while maintaining a strong and healthy relationship. [48-54]

2.6 Impact of Infertility Treatments on Mental Health

Infertility treatments, while offering hope for conception, can have a profound impact on mental health due to the emotional, physical, and financial strain they impose on individuals and couples. Assisted reproductive techniques such as in vitro fertilization (IVF), intrauterine insemination (IUI), and other interventions are often accompanied by a sense of anticipation and anxiety about the outcomes. The rigorous medical protocols, including hormonal injections, invasive procedures, and frequent monitoring, can be physically taxing, often leading to fatigue, discomfort, and hormonal side effects. For women, the process can be particularly overwhelming, as they are often the primary recipients of these treatments, leading to heightened vulnerability to stress, anxiety, and depression. [55-61]

The psychological burden of infertility treatments is exacerbated by the uncertainty of success. Each cycle of treatment involves significant emotional investment, as individuals and couples pin their hopes on achieving a successful pregnancy. However, the success rates of treatments such as

IVF remain variable, with many couples experiencing repeated failures before achieving their desired outcome, if at all. Each failed cycle can lead to a sense of loss and grief, similar to the experience of a miscarriage, compounding the emotional toll. The repeated cycle of hope and disappointment creates a rollercoaster of emotions, often leaving individuals feeling emotionally drained and less resilient over time.[56]

Financial stress is another critical factor contributing to the mental health challenges associated with infertility treatments. These treatments are often expensive, with costs that can quickly accumulate over multiple cycles. For many couples, the financial strain adds another layer of stress to an already challenging situation, leading to feelings of helplessness and frustration. The financial burden may also exacerbate relational conflicts, as partners may disagree on how much to invest in treatments or how to prioritize their financial resources. These financial pressures can lead to increased anxiety, particularly when coupled with the uncertainty of treatment outcomes.[57]

The social implications of undergoing infertility treatments further contribute to the emotional distress experienced by individuals and couples. Many people choose to keep their treatment journey private due to the stigma surrounding infertility, leading to feelings of isolation and loneliness. The lack of understanding or empathy from family, friends, and the broader community can leave individuals feeling unsupported, further intensifying their emotional struggles. In some

cases, societal expectations and cultural norms regarding parenthood may lead to added pressure, especially for women, who often bear the brunt of societal blame for infertility. This social isolation and stigma can significantly impact mental health, contributing to anxiety, depression, and reduced self-esteem.[58]

The impact of infertility treatments on mental health is not limited to women; men also experience significant psychological challenges during this process. While women are more likely to report emotional distress openly, men often internalize their emotions due to societal expectations of masculinity, which discourage vulnerability. This emotional suppression can lead to feelings of isolation, frustration, and helplessness, particularly when men feel unable to alleviate their partner's distress or contribute directly to the treatment process. Additionally, men may experience anxiety and depression related to their role as financial providers, particularly if they feel the burden of funding expensive treatments while also managing the emotional needs of their partner.[59]

Despite the significant mental health challenges associated with infertility treatments, there are strategies and interventions that can help individuals and couples navigate these difficulties. Psychological support, such as counseling or therapy, can provide a safe space for individuals to process their emotions, build resilience, and develop effective coping strategies. Support groups and peer networks can also play a crucial role in reducing feelings of isolation, as they allow

individuals to connect with others who understand the unique challenges of infertility. Additionally, stress-reduction techniques such as mindfulness, relaxation exercises, and cognitive-behavioral therapy (CBT) have been shown to improve mental health outcomes for individuals undergoing infertility treatments. By addressing the emotional and psychological aspects of infertility, these interventions can help individuals manage the stress of treatment and improve their overall well-being. [60-68]

2.7 Interventions for Gender-Specific Psychological Support in Infertility

Psychological support in the context of infertility requires a nuanced approach that addresses the distinct emotional and coping needs of men and women. Gender-specific interventions are essential to provide tailored support that reflects the differences in how men and women process and respond to the challenges of infertility. Women, who often bear the physical and emotional burden of treatments, require interventions that focus on emotional expression, validation, and social connection. Support groups, where women can share their experiences with others facing similar challenges, are particularly effective in reducing feelings of isolation and fostering emotional resilience. These groups provide a platform for women to discuss their fears, frustrations, and hopes, helping them process their emotions in a supportive and understanding environment. Individual counseling can also be highly beneficial, as it allows women to explore

their feelings of guilt, inadequacy, or grief in a private and secure setting, enabling them to develop healthier coping mechanisms. [69-73]

Cognitive-behavioral therapy (CBT) is one of the most effective interventions for addressing infertility-related psychological distress in women. This therapeutic approach focuses on identifying and challenging negative thought patterns that contribute to anxiety, depression, and low self-esteem. For women undergoing infertility treatments, CBT can help them reframe their experiences in a more positive light, reducing the emotional burden of repeated failures or setbacks. Techniques such as cognitive restructuring, relaxation exercises, and mindfulness practices can help women manage their stress levels and maintain emotional balance throughout the treatment process. By equipping women with practical tools to manage their emotions, CBT enhances their psychological resilience and overall well-being. [74-77]

For men, psychological support must address the societal and cultural norms that often discourage emotional vulnerability and expression. Many men internalize their distress during infertility, adopting avoidance-based coping strategies that can lead to feelings of isolation and unresolved emotional conflicts. Interventions for men should therefore emphasize the importance of emotional expression and provide a safe space where they can share their feelings without fear of judgment. Individual counseling can help men explore their emotions and develop healthier coping strategies, while also addressing the specific challenges they face, such as feelings of helplessness,

frustration, or concerns about their role in the relationship. Psychoeducation is another critical component of support for men, as it helps them understand the emotional impact of infertility and validates their experiences, reducing the stigma associated with seeking help.[78]

Couples-based interventions are particularly valuable for addressing the relational challenges of infertility. These interventions focus on improving communication, fostering mutual understanding, and strengthening the emotional bond between partners. Infertility often creates tension and misunderstandings within relationships, as men and women cope with their emotions in different ways. Couples counseling provides a structured environment where partners can discuss their feelings, expectations, and concerns openly, helping them navigate the emotional complexities of infertility together. Therapeutic approaches such as emotionally focused therapy (EFT) are particularly effective in enhancing emotional intimacy and reducing relational conflict. By focusing on the emotional connection between partners, EFT helps them support each other more effectively, creating a united front in the face of infertility.[79]

In addition to traditional therapeutic approaches, alternative and integrative therapies can also play a significant role in gender-specific psychological support. Techniques such as mindfulness-based stress reduction (MBSR), yoga, and acupuncture have been shown to reduce stress, anxiety, and depression in individuals undergoing infertility treatments. These practices promote relaxation and emotional balance, helping both men and women cope with the physical and emotional demands

of treatment. For women, these therapies can provide a sense of control and self-care during a process that often feels overwhelming. For men, they offer a structured and non-verbal way to manage stress and improve emotional well-being. Integrating these alternative therapies into infertility care can enhance the overall effectiveness of psychological support, providing a holistic approach to addressing the emotional challenges of infertility.[79]

2.8 Past Studies

Musa et al. (2014): This study evaluated psychological differences in infertile Malaysian couples and their relation to coping styles. It found that wives reported significantly higher levels of depression, anxiety, and stress compared to husbands ($p < 0.05$). Emotional-oriented coping styles were linked to higher depression (odds ratio [OR] = 2.5), anxiety (OR = 3.0), and stress (OR = 1.5) across both genders. The study emphasized that emotional coping strategies heightened vulnerability to psychological distress, demonstrating a clear gender disparity in how infertility impacts mental health.[80]

Wu et al. (2014): This study examined depression and coping strategies in 288 Chinese women undergoing in-vitro fertilization (IVF). It reported a 22.6% prevalence of depression, with risk factors including long marriage duration (greater than 8 years), long infertility duration (more than 6 years), and low monthly family income (≤ 3000 CNY). High basal follicle-stimulating hormone and denial as a coping strategy were linked to an increased risk of depression, while high estradiol

levels and humor as a coping strategy reduced depression risk. The findings underscored the critical role of financial and biological factors in influencing psychological outcomes during IVF treatment.[81]

Peterson et al. (2014): This study analyzed the relationship between severe depressive symptoms and infertility-related distress in 1406 Danish couples undergoing assisted reproductive treatments. Severe depressive symptoms were observed in 11.6% of women and 4.3% of men. The study revealed that depressive symptoms significantly increased infertility-related distress at both the individual and partner level ($p < 0.01$), but no significant gender interaction was found. This highlights the importance of addressing depression for both partners to mitigate distress during fertility treatment.[82]

Ying et al. (2015): A review of 33 studies identified gender differences in experiences with infertility. Women reported higher levels of depression, anxiety, stigma, and shame compared to men, as well as lower self-esteem and physical health. Notably, partner support was inversely associated with stress for both genders. While both men and women experienced marital stress due to infertility, there were no significant gender differences in marital satisfaction or adjustment. This review emphasized the need for interventions aimed at fostering partnership and mutual support to alleviate distress in couples.[83]

Valoriani et al. (2016): A cross-sectional study of 309 Italian couples undergoing their first ART consultation found that women experienced higher levels of depression and lower psychophysical well-being compared to men ($p < 0.05$). Socio-demographic factors, such as educational background and employment status, significantly influenced emotional states. The findings suggested that gender-sensitive psychological and counseling services are essential to address the emotional needs of couples at the start of ART treatment.[84]

Zurlo et al. (2018): This study explored the predictors of quality of life (QoL) and psychological health in 206 infertile couples, examining the moderating role of infertility duration. Women reported significantly lower QoL and higher levels of anxiety and depression compared to men ($p < 0.05$). Protective factors, such as higher educational levels and social support, were more beneficial for women, while problem-solving coping strategies were more effective for men. Couples with infertility lasting more than three years showed reduced benefits from coping strategies, although the positive effects of education and dyadic adjustment persisted. These findings highlighted the need for tailored interventions considering the duration of infertility and gender-specific differences.[85]

Zurlo et al. (2019): This study tested a multi-dimensional model to predict anxiety and depression in 250 infertile couples. Significant gender differences were observed, with women experiencing higher anxiety and depression scores compared to men ($p < 0.001$). Infertility-related stress

dimensions, such as personal and social stress, were stronger predictors of psychological health outcomes in women, while coping strategies and dyadic adjustment played a protective role for both genders. The study emphasized the importance of integrating gender-specific counseling interventions into fertility treatments to address psychological health challenges effectively.[86]

Brigance et al. (2020): This study outlined the application of emotionally focused couples therapy (EFCT) for couples undergoing infertility treatments, emphasizing its ability to enhance dyadic communication and meaning-based coping. Couples who engaged in EFCT demonstrated significant improvements in emotional well-being and relationship satisfaction, particularly in cases where partners supported each other's emotional expressions. The study underscored the role of EFCT in addressing gender-specific emotional needs and fostering resilience in couples navigating infertility-related challenges.[87]

Pejušković et al. (2023): This study examined depression and distress in 84 infertile couples compared to a fertile control group. Women in the infertile group exhibited significantly higher levels of depression (mean Beck Depression Inventory [BDI] score = 19.5) compared to their male partners (mean BDI score = 13.2; $p < 0.05$). The infertile group reported significantly higher distress levels on the Brief Symptom Inventory compared to the control group ($p < 0.01$). These findings highlighted the psychological burden of infertility, with women being particularly vulnerable, necessitating targeted mental health support for this population.[88]

Kumar et al. (2024): This study assessed anxiety and depression in 160 Indian couples undergoing assisted reproductive treatments. The prevalence of anxiety and depression was 46.2% and 40.9%, respectively, with women reporting significantly higher anxiety scores (mean = 10.76) compared to men (mean = 9.12; $p = 0.02$). Depression scores were higher in women but did not reach statistical significance. Factors influencing distress included the duration of infertility, with couples in the first year and after 10 years of treatment experiencing the highest levels of psychological distress. The study emphasized the importance of early psychological interventions in ART programs.[89]

METHODOLOGY

Study Design:

This study was conducted as a cross-sectional descriptive study, which allowed for the analysis of data collected from participants at a single point in time.

The study was conducted at the Assisted Reproductive Centre of KLES Dr. Prabhakar Kore Hospital, Belagavi. Patients were recruited using purposive sampling.

The data collection took place over a period of one year between March 2023 to February 2024.

Inclusion Criteria:

1. All couples with a confirmed diagnosis of primary infertility were included in the study.
2. Participants who provided informed written consent to participate in the study were eligible.

Exclusion Criteria:

1. If either of the couple has a history of psychotic or mood disorders.
2. If either of the couple has a history of substance dependence, except for nicotine.

Ethical Clearance:

Prior to commencement, ethical clearance was taken from Institutional Ethics Committee, Jawaharlal Nehru Medical College, Belagavi with Ethical Clearance number MDC/JNMCIEC/162.

Informed Consent:

Informed consent was obtained from the participants (both husband and wife) who fulfilled the inclusion criteria.

Sample size:

The sample size was calculated using the formula:

$$n = \frac{4pq}{r^2},$$

where $p = 21$ (expected prevalence of depression), $q = 100 - p = 79$, and $r = 5$ (permitted error), with a 95% confidence interval.

The estimated sample size was 240 participants, comprising 120 couples undergoing infertility treatment.

Data collection procedure:

After obtaining written informed consent from all the participants, patients were interviewed using a semi structured proforma to gather socio- demographic and clinical data. The patient health questionnaire-9 'PHQ-9' scale was used to assess depressive disorder and their phenomenologies and subsequently were also assessed for effect of coping strategies using the Brief COPE inventory.

Data processing and statistical analysis:

The data collected were tabulated systematically. The socio-demographic and clinical details of the patients were summarized using percentages for categorical variables or as mean and standard deviation for continuous variables. To assess the strength of relationship between the variables, Chi square test was applied for the categorical variables and unpaired student t test for continuous variables. The correlation coefficients between two groups were calculated using Pearson's correlation coefficient. All tests were two tailed and p values less than 0.05 were considered significant.

TOOLS-

1. Patient health questionnaire-9 (PHQ-9)

The PHQ-9 serves as a validated depression screening instrument derived from DSM-IV diagnostic criteria. This nine-item self-report measure quantifies depressive symptom frequency over a two-week period, with response options ranging from 0 ("not at all") to 3 ("nearly every day"). Developed in 1999 by Spitzer, Williams, and Kroenke at Columbia University, the instrument demonstrates strong psychometric properties (reliability coefficient: 0.84; validity coefficient: 0.73) while requiring minimal administration time (approximately three minutes).

The PHQ-9 provides clinical stratification of depression severity:

- 1-4: Minimal/No depression
- 5-9: Mild depression
- 10-14: Moderate depression
- 15-19: Moderately severe depression
- 20-27: Severe depression

2. Brief COPE

The Brief COPE (Carver, 1997) is a 28-item psychometric instrument designed to assess stress response strategies. Participants rate each item on a 4-point Likert scale (1="not at all" to 4="a lot"), evaluating engagement with specific coping mechanisms. The instrument distinguishes between:

Approach (Adaptive) Coping Strategies:

- Active coping (items 2, 7)
- Positive reframing (items 12, 17)
- Planning (items 14, 25)
- Acceptance (items 20, 24)
- Emotional support-seeking (items 5, 15)
- Informational support-seeking (items 10, 23)

Avoidant (Maladaptive) Coping Strategies:

- Self-distraction (items 1, 19)
- Denial (items 3, 8)

- Substance use (items 4, 11)
- Behavioural disengagement (items 6, 16)
- Venting (items 9, 21)
- Self-blame (items 13, 26)

The inventory also includes items assessing humour (18, 28) and religion-based coping (22, 27), which are classified as neutral and excluded from adaptive/maladaptive categorization.

Scoring Methodology: Assessment involves calculating composite scores for approach and avoidant strategies by summing respective item responses. Higher approach scores indicate adaptive coping patterns, while elevated avoidant scores suggest maladaptive response tendencies.

When scores between categories are comparable, supplementary qualitative evaluation or subgroup analysis is recommended for comprehensive interpretation.

RESULTS:**[SOCIO- DEMOGRAPHIC PROFILE OF STUDY SAMPLE]-****TABLE-1: MEAN AGE OF THE PARTICIPANTS-**

Variables	Women (n=120)	Men (n=120)
Mean age	28.2 ± 3.95	31.3 ±3.36

Table 1 Illustrates the mean age of the study sample. In this study, 240 participants were analysed in which the mean age of samples was found to be 28.2 (± 3.95) years among females and 31.3 (± 3.36) years among males.

TABLE -2 SOCIOECONOMIC CLASS DISTRIBUTION OF THE PARTICIPANTS

Socio-economic class	Frequency (N=240, male + female)	Percentage (%)
Lower class	24	10.0
Lower Middle class	174	72.5
Middle class	14	5.8

Upper middle class	28	11.7
---------------------------	----	------

Table-2 The majority of couples undergoing infertility treatment belonged to the lower middle class (72.5%), followed by the upper middle class (11.7%), lower class (10.0%), and middle class (5.8%). This indicates that infertility treatment is sought across different socio-economic strata, with a significant proportion of patients coming from the lower middle class.

TABLE -3 OCCUPATION OF THE STUDY PARTICIPANTS -

Occupation	Females (n=120) (frequency and percentage)	Males (n=120) (Frequency and percentage)
Unskilled	93 (77.5%)	81 (67.5%)
Semi- skilled	9 (7.5%)	27 (22.5%)
Skilled	18 (15%)	12 (10%)

Table 3 –In this study, it was noted that the majority of males (**67.5%**) and females (**77.5%**), were engaged in unskilled occupations like farming and agricultural work.

TABLE 4- NICOTINE USE AMONG THE PARTICIPANTS

Nicotine use	Females (n=120)	Males (n=120)
(chewing+ smoking)	00	41(34.2%)

Table 4 – Nicotine use was reported exclusively among men, with 34.2% engaging in either smoking or chewing tobacco, while no women in the study reported nicotine use. This highlights a significant gender difference in tobacco consumption.

TABLE 5- DURATION OF INFERTILITY TREATMENT OF THE STUDY PARTICIPANTS

Duration of infertility treatment	Frequency (N=240-males+ females)	Percentage (%)
Less than 3 years	62	25.8
Between 3 to 5 years	114	47.5
More than 5 years	64	26.7

Table 5 –As per the study, majority of the couples (**47.5%**) were seeking treatment for a duration between 3 to 5 years period, and 64% of couples for more than 5 years, highlighting the nature of chronic infertility treatment.

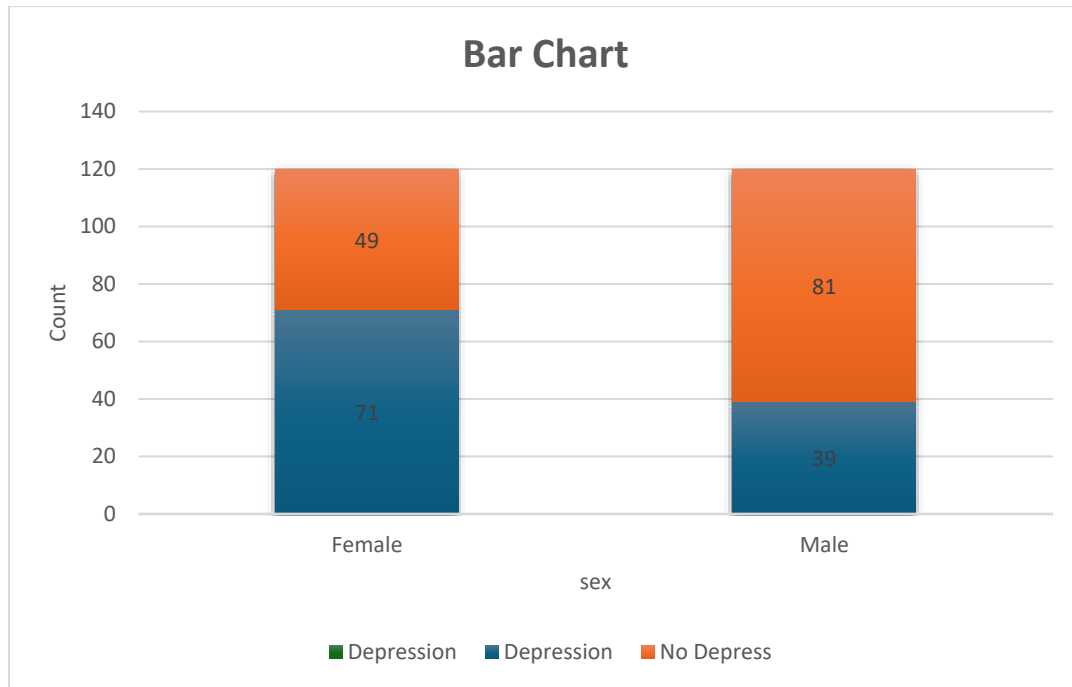
TABLE 6: PREVALENCE OF DEPRESSION IN MALE AND FEMALE PARTICIPANTS

Variables	Females		Males		P value
	Frequency (n=120)	Percentage (%)	Frequency (n=120)	Percentage (%)	
Depression	71	59.2	39	32.5	0.00*
No depression	49	40.8	81	67.5	

***Significant**

Table 6 Illustrates the prevalence of depression across the genders.

As per this study, women participants were found to have more depression in comparison to their male counterparts (59.2% vs 32.5%) as per the PHQ-9 scale and the results were found to be statistically significant (p value=0.00)

FIGURE 1 –PREVALENCE OF DEPRESSION ACROSS THE GENDERS.**TABLE 7- COMPARISON OF PROPORTION OF PARTICIPANTS REPORTING DEPRESSION ACROSS THE GENDERS (ODDS RATIO).**

Variables	Females (n=120) (n) / (%)	Males (n=120) (n) / (%)	Odds ratio
Depression	71 (59.2%)	39 (32.5%)	3.01
No depression	49 (40.8%)	81 (67.5%)	

Table 7 Illustrates the comparison of depression between the genders.

In this study, out of 240 participants, 59.2% of females and 32.5% of males reported symptoms of depression. The odds of depression among females were **3.01 times** higher compared to males (**OR = 3.01, 95% CI: 1.77–5.10**). This indicates a statistically significant association between sex and depression.

TABLE- 8 – COMPARISON OF PROPORTION OF PARTICIPANTS REPORTING THE SYMPTOM OF PERSISTENT LOW MOOD ACROSS THE GENDERS.

As per PHQ-9		Female (n=120)	Male (n=120)	P value
Low mood	Present	68 (56.7%)	54(45.0%)	0.09*
	Absent	52 (43.3%)	66(55.0%)	

***Not significant**

Table -8 Shows the association between the phenomenology of reported low mood with the genders. Persistent low mood was reported by significantly greater number of women, compared to men (56.7% v/s 45%) however the difference was not statistically significant (P=0.09)

FIGURE 2– COMPARISON OF PHENOMENOLOGY OF REPORTED LOW MOOD ACROSS THE GENDERS.

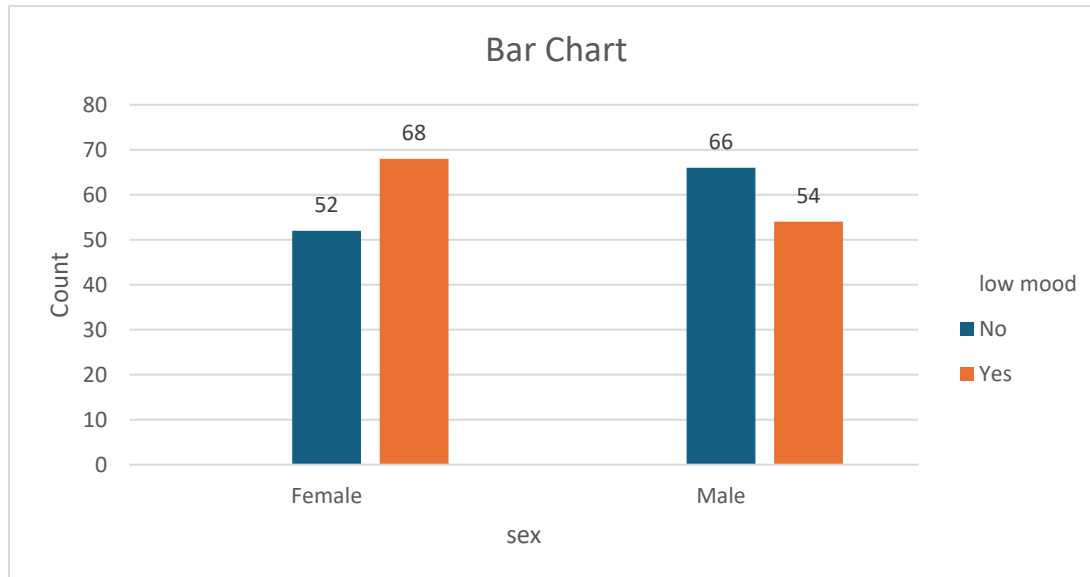


TABLE -9 – COMPARISON OF PROPORTION OF PARTICIPANTS REPORTING THE SYMPTOM OF ANHEDONIA ACROSS THE GENDERS.

As per PHQ-9 scale		Females (n=120)	Males (n=120)	P value
Anhedonia	Present	38 (31.7%)	20 (16.7%)	0.01*
	Absent	82 (68.3%)	100 (83.3%)	

***Significant**

Table -9 Shows comparison between the phenomenology of reported anhedonia as per the PHQ-9 scale and its prevalence across both the genders (females and males individually) and the results were found to be statistically significant. (P value =0.01).

This study outlines how reported anhedonia was more prevalent among the female participants as compared to the male participants (31.7% vs 16.7%)

FIGURE -3 COMPARISON OF PHENOMENOLOGY OF REPORTED ANHEDONIA ACROSS THE GENDERS.

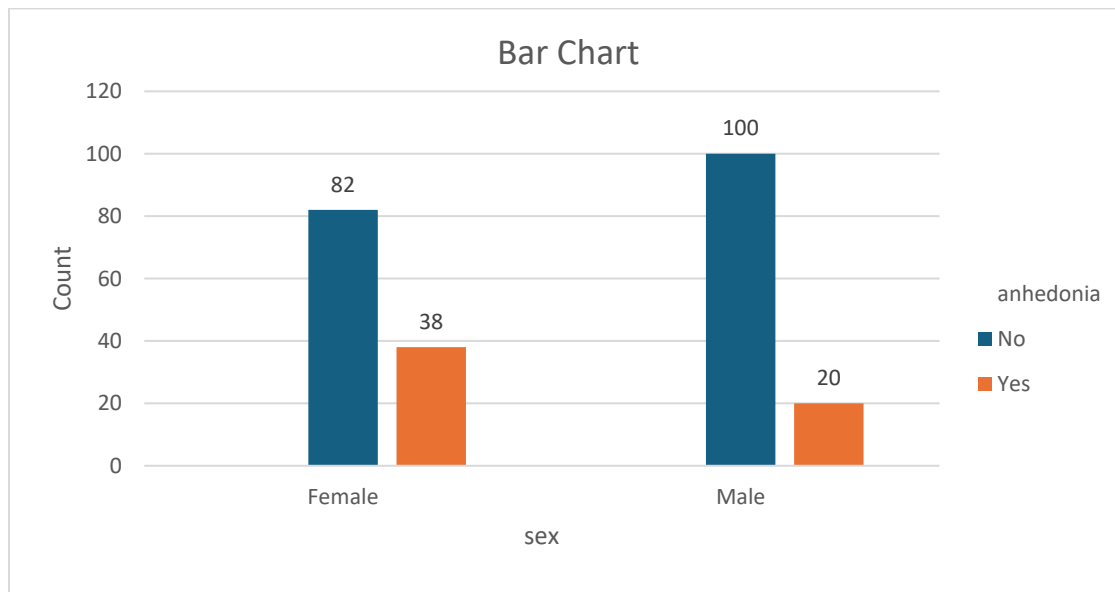
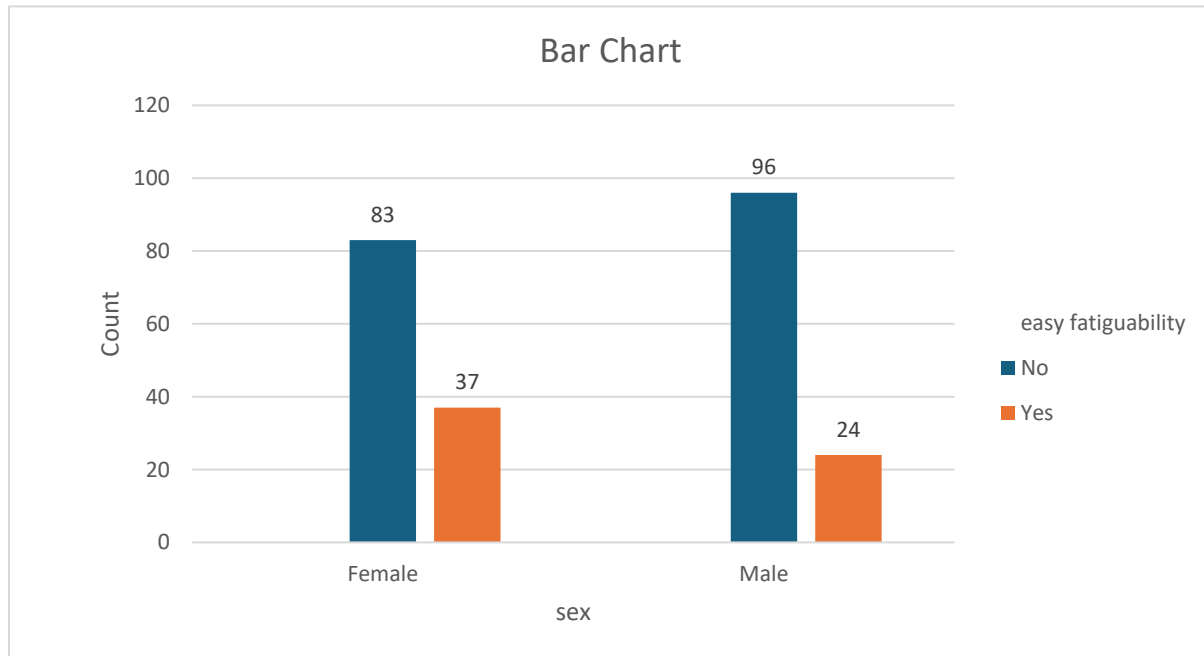


TABLE -10 COMPARISON OF PROPORTION OF PARTICIPANTS REPORTING THE SYMPTOM OF EASY FATIGUABILITY ACROSS THE GENDERS.

As per PHQ-9 scale		Females (n=120)	Males (n=120)	P value
Easy fatiguability	Present	37 (30.8%)	24 (20.0%)	0.07*
	Absent	83 (69.2%)	96 (80.0%)	

***Not significant**

Table 10 Shows the association between reported easy fatiguability as per the PHQ-9 scale and both the genders. This study shows women experienced more fatiguability in comparison to their male counterparts (20% vs 80%). However, the results were not found to be statistically significant (P value= 0.07)

FIGURE -4 COMPARISON OF PHENOMENOLOGY OF REPORTED EASY FATIGUABILITY ACROSS THE GENDERS**TABLE 11- COMPARISON OF PROPORTION OF PARTICIPANTS REPORTING THE SYMPTOM OF APPETITE DISTURBANCES ACROSS THE GENDERS.**

As per PHQ-9 scale		Females (n=120)	Males (n=120)	P value
Appetite disturbances	Present	38 (31.7%)	22 (18.3%)	0.02*
	Absent	82 (68.3%)	98 (81.7%)	

***Significant**

Table 11 Represents association between the phenomenology of reported appetite disturbances across the individual partners in couples as per the PHQ-9 scale.

The study shows greater number of females presented with appetite disturbances as compared to the males (31.7% vs 18.3%) and the results were found to be statistically significant. (p value=0.02)

FIGURE 5- COMPARISON OF PHENOMENOLOGY OF REPORTED APPETITE DISTURBANCES ACROSS THE GENDERS.

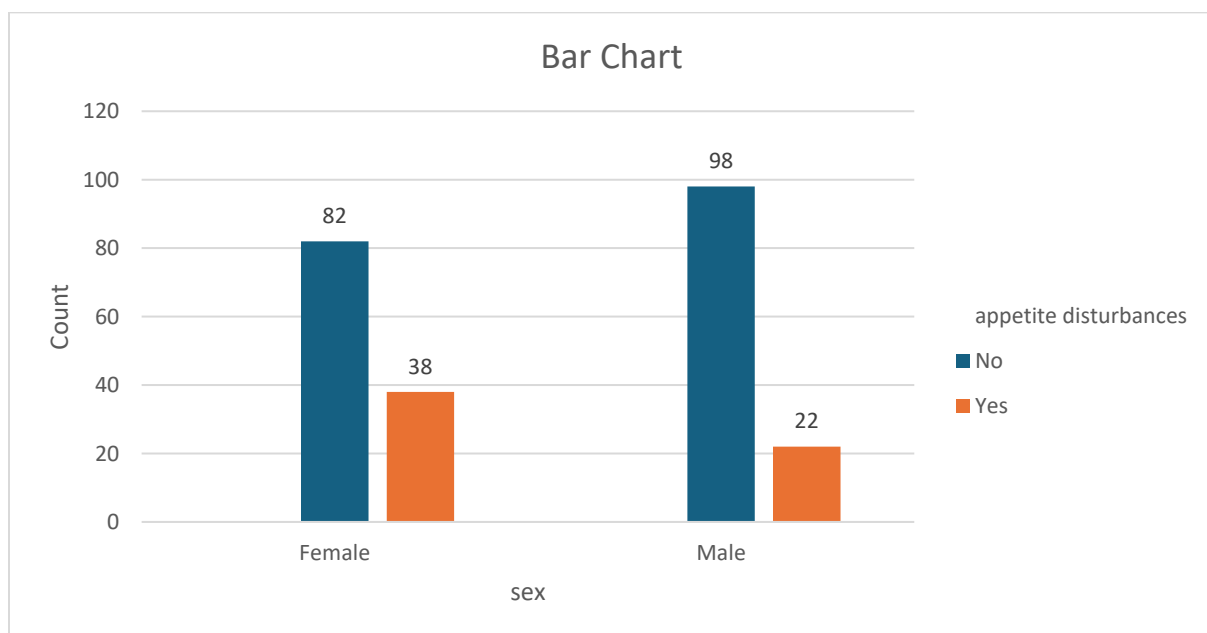


TABLE -12 – COMPARISON OF PROPORTION OF PARTICIPANTS REPORTING THE SYMPTOM OF SLEEP DISTURBANCES ACROSS THE GENDERS.

As per PHQ-9 scale		Females (n=120)	Males (n=120)	P value
Sleep disturbances	Present	54 (45%)	39(32.5%)	0.04*
	Absent	66(55%)	81(67.5%)	

***Significant**

Table 12 Represents the comparison of phenomenology of reported sleep disturbances as per the PHQ-9 scale across the genders. This study shows that women experienced more sleep disturbances in comparison to men (45% vs 32.5%; $p < 0.05$), and the study was found to be statistically significant (p value =0.04)

FIGURE -6 COMPARISON OF PHENOMENOLOGY OF REPORTED SLEEP DISTURBANCES ACROSS THE GENDERS.

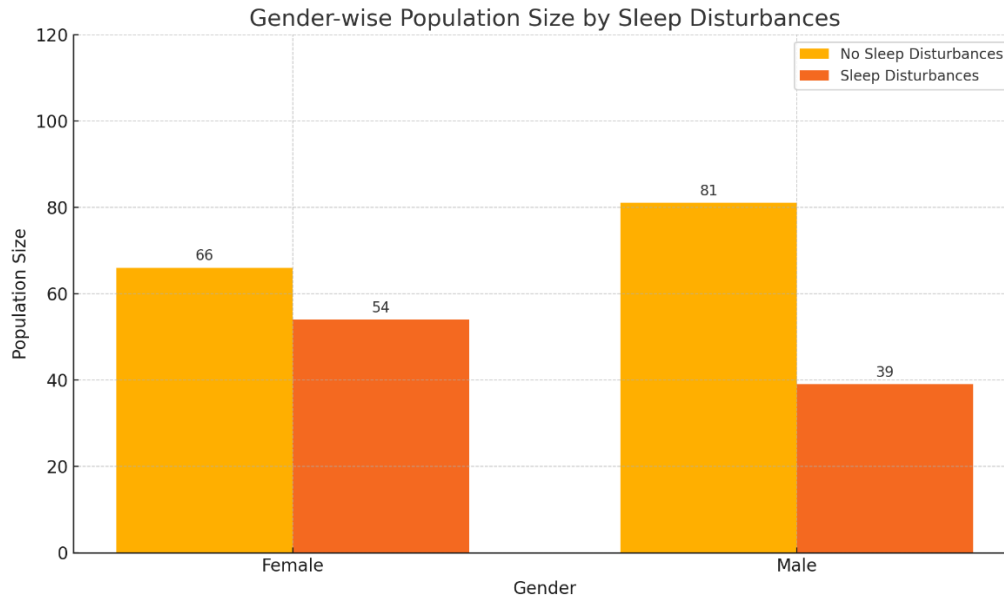


TABLE 13- COMPARISON OF PROPORTION OF PARTICIPANTS REPORTING THE SYMPTOM OF POOR CONCENTRATION ACROSS THE GENDERS.

As per PHQ-9 scale		Females (n=120)/ (%)	Males n=120)/ (%)	P Value
Poor concentration	Present	17 (14.2%)	2 (1.7%)	0.00*
	Absent	103 (85.8%)	118 (98.3%)	

***Significant**

Table 13 Shows the comparison between the phenomenology of reported poor concentration across the genders seeking infertility treatment.

The study reveals that women experienced more concentration difficulties as compared to their male counterparts (14.2% vs 1.7%) implying that poor concentration was more prevalent among the females, and the study was found to be statistically significant (p value=0.00)

FIGURE 7- COMPARISON OF PHENOMENOLOGY OF REPORTED CONCENTRATION DIFFICULTIES ACROSS THE GENDERS.

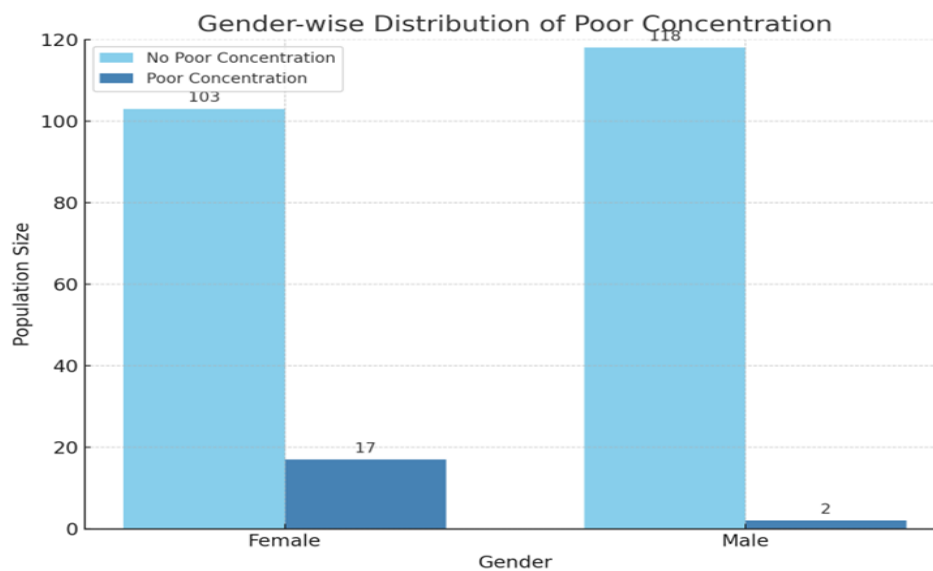


TABLE 14 COMPARISON OF PROPORTION OF PARTICIPANTS REPORTING THE SYMPTOM OF DEATH WISHES ACROSS THE GENDERS.

As per PHQ-9 scoring		Females (n)/ (%)	Males (n)/ (%)	P Value
Death wishes	Present	14 (11.7%)	2 (1.7%)	0.003*
	Absent	106 (88.3%)	118 (98.3%)	

***Significant**

Table 14 Shows the comparison of phenomenology of reported death wishes across the genders as per PHQ-9 scale.

The study findings show female participants experienced more death wishes as compared to the male participants (11.7% vs1.7%) indicating that death wishes were more prevalent among females as compared to males and the results were statistically significant (p value=0.003)

FIGURE 8- COMPARISON OF PHENOMENOLOGY OF REPORTED DEATH WISHES ACROSS THE GENDERS

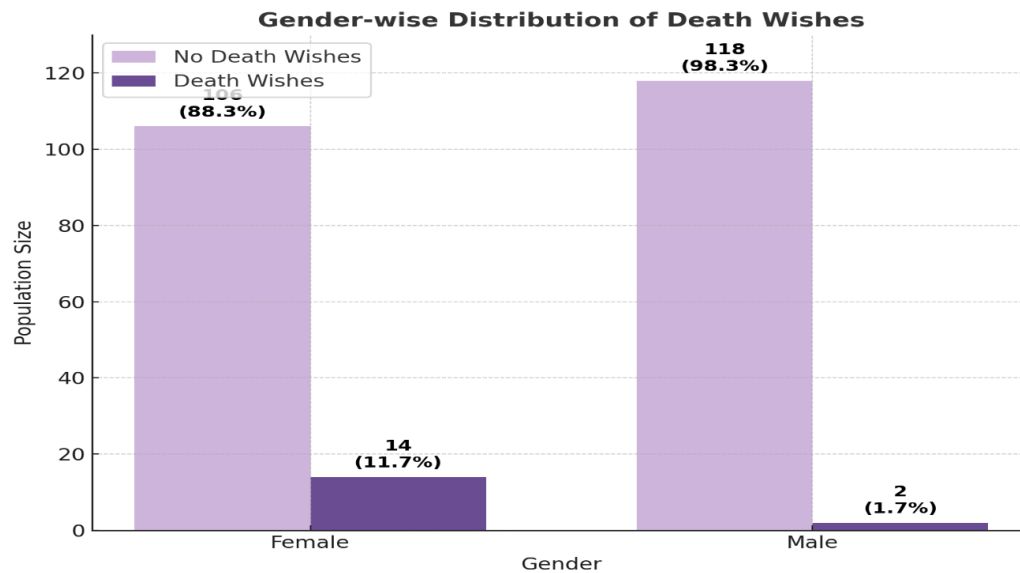


TABLE 15 – COMPARISON OF PROPORTION OF PARTICIPANTS REPORTING THE SYMPTOM OF GUILT FEELINGS ACROSS THE GENDERS.

As per PHQ-9 scale		Females (n)/ (%)	Males (n)/ (%)	P value
Guilt feelings	Present	25 (20.8%)	2 (1.7%)	0.00*
	Absent	95 (79.2%)	118 (98.3%)	

*Significant

Table 15- Shows the comparison of phenomenology of reported guilt feelings across the genders as per the PHQ-9 scale.

As per the study, women participants experienced more guilt feelings as compared to the male participants (20.8%vs1.7%) indicating that greater number of females reported guilt feelings in comparison to males, and the study was found to be statistically significant (p value= 0.00)

FIGURE 9- COMPARISON OF PHENOMENOLOGY OF REPORTED GUILT FEELINGS ACROSS THE GENDERS.

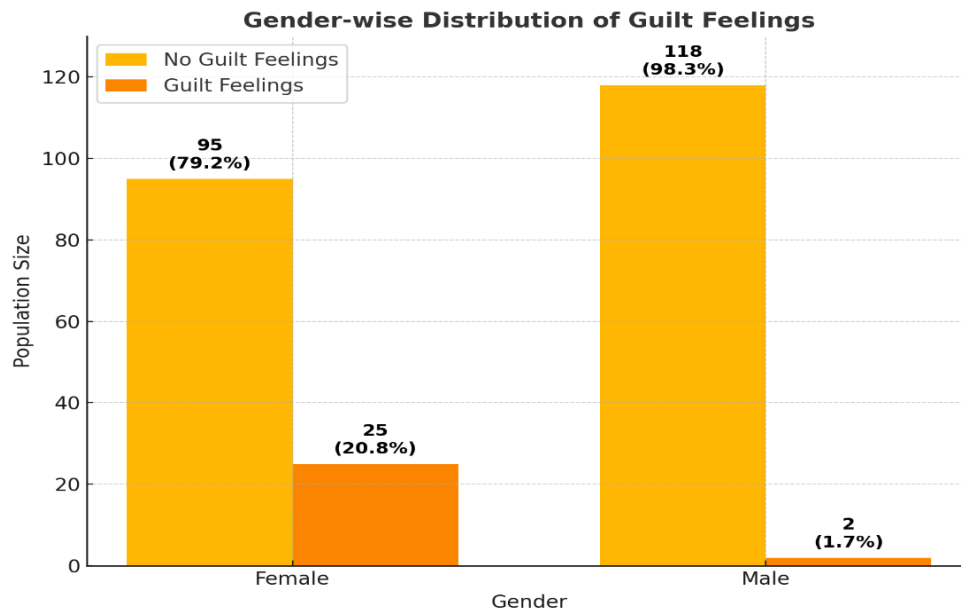


TABLE 16- COMPARISON OF PROPORTION OF PARTICIPANTS REPORTING THE SYMPTOM OF ANXIOUSNESS ACROSS THE GENDERS.

As per the PHQ-9 scale		Females (n) / (%)	Males (n) / (%)	P-value
Anxiousness	Present	12 (10.0%)	2 (1.7%)	0.01 *
	Absent	108 (90.0%)	118 (98.3%)	

***Significant**

Table 16 Shows the comparison of phenomenology of reported anxiousness across the genders as per PHQ-9 scale.

The study shows, women participants experienced more anxiety as compared to male participants(10%vs1.7%) indicating that guilt feelings was more prevalent among the females and the study was found to be statistically significant (p value= 0.01)

FIGURE 10- COMPARISON OF PHENOMENOLOGY OF REPORTED ANXIOUSNESS ACROSS THE GENDERS.

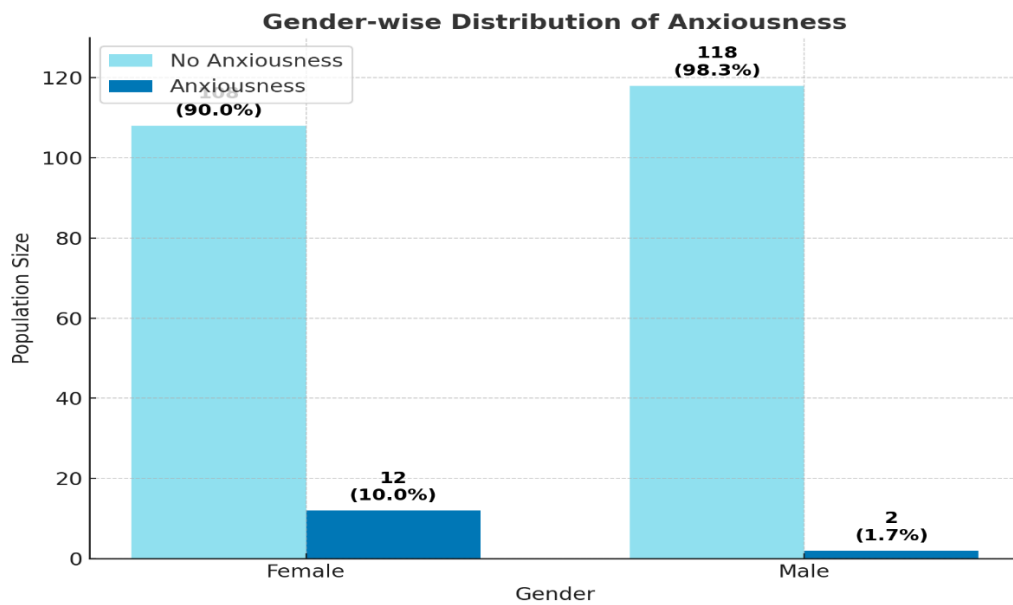


TABLE 17- COMPARISON OF COPING SKILLS ACROSS THE GENDERS AS PER BRIEF COPE SCALE

Genders	Positive coping (Adaptive)	Negative coping (Maladaptive)	P value

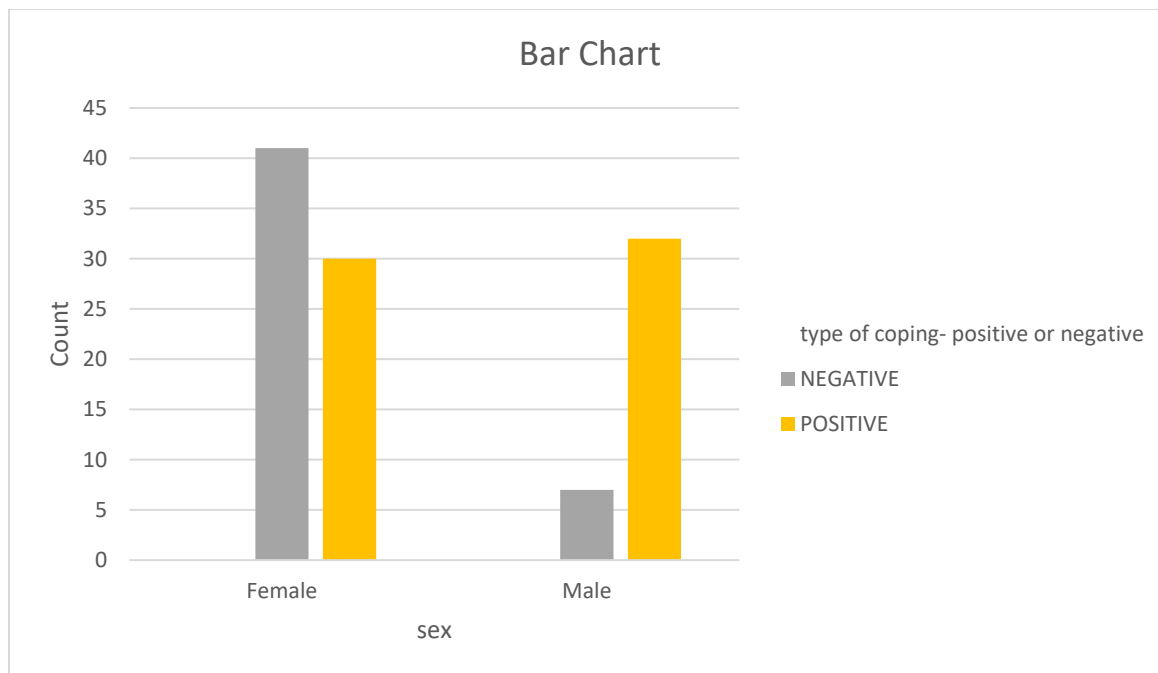
Females (n=71)	30 / (42.25%)	41 (57.75%)	0.00*
Males (n=39)	32 / (82%)	7 (18%)	

***Significant**

Table 17 Shows the prevalence of coping skills (negative and positive) across both the genders.

This study reveals that female participants used more of negative coping (maladaptive) skills as compared to the male participants (57.7 % vs 18%)

However, males used more of positive coping (adaptive) skills (82%) and the results were found to be statistically significant (p value=0.00)

FIGURE 11- COMPARISON OF COPING SKILLS ACROSS THE GENDERS**TABLE 18- COMPARISON OF COPING SKILLS ACROSS THE GENDERS AS PER BRIEF COPE SCALE**

Coping skills	Females (n=71)	Males (n=39)	Odds ratio
Positive coping (Adaptive coping)	30(42.25%)	32 (82%)	6.25
Negative coping (Maladaptive coping)	41 (57.75%)	7 (18%)	

Table 18 Among 240 participants, 57.75% of females and only 18% of males reported using negative coping skills. The odds of negative coping among females were significantly higher compared to males (OR = 6.25, 95% CI: 2.43–16.05), indicating a strong association between sex and type of coping mechanism.

DISCUSSION

The objective of this study was to comprehensively examine the gender differences in depression and coping mechanisms among couples undergoing infertility treatment. Specifically, the research seeks to determine the prevalence and severity of depressive symptoms in both men and women, delineate the differences in symptomatology—such as low mood, anhedonia, appetite disturbances, sleep difficulties, poor concentration, death wishes, guilt, and anxiousness. In addition, the study investigates the coping strategies employed by each gender, with a focus on distinguishing between positive, adaptive behaviours and negative, maladaptive responses. By utilizing validated instruments such as the Patient Health Questionnaire-9 (PHQ-9) and standardized coping inventory like the Brief cope strategy scale. Research aims to capture the complex interplay between chronic infertility, stress and the psychological well-being of couples. The significance of this study lies in its potential to inform targeted, gender-sensitive clinical interventions.

The key findings of this study were, women had higher prevalence of depression than their male counterparts. Phenomenologically, all symptoms of depression, although present across both the genders, were more prevalent in women. Further, more women tend to use maladaptive coping skills than their male counterparts.

Sociodemographic details of the sample:

The mean age of women undergoing infertility treatment was 28.2 ± 3.95 years, whereas for men it was 31.3 ± 3.36 years. This observation is a reflection of the usual trend, where husbands are few years older than wives. Age has been indicated as one of the risk factors for psychological problems. Younger women might experience more acute societal pressures related to fertility and childbearing, while older men could face different expectations regarding their reproductive role. Valoriani et al. (2016) [84] reported similar age distributions in Italian couples at the onset of ART treatment, noting that younger female age was associated with better treatment outcomes and higher emotional vulnerability when expectations were unmet. Wu et al. (2014) [81] observed that lower income and longer durations of marriage, often linked with advancing age, increased depressive risk among women undergoing IVF. In contrast, older men may benefit from greater life experience and economic stability, yet the age gap can sometimes exacerbate communication issues within couples regarding treatment decisions. Ying et al. (2015) [83] highlighted that disparities in age could affect the perception of infertility, with younger women experiencing more stigma and anxiety over delayed conception. The current findings echo these trends, underscoring the need for age-sensitive counselling that addresses both the optimism of youth and the potential frustrations of unmet reproductive goals. The differential age profiles call for tailored support strategies to ensure that both partners' emotional needs are met during the treatment process, considering that age can influence stress levels, coping mechanisms, and expectations regarding

fertility outcomes (e.g., biological clock concerns in women versus financial or career stability in men). Recognizing these nuances is essential to optimize psychosocial interventions and improve treatment adherence and satisfaction among couples facing infertility [81,83,84].

The socio-economic class distribution among the study participants showed, 10.0% were from the lower class, a predominant 72.5% belonged to the lower middle class, 5.8% to the middle class, and 11.7% to the upper middle class. The overwhelming representation of the lower middle class reflects the socio-economic profile of couple seeking help in this hospital. Wu et al. (2014) [81] identified low monthly family income as a significant risk factor for depression in women with infertility, linking financial stress to poorer psychological outcomes. The socio-economic status (SES) of these couples may limit their access to additional supportive services and influence their perceptions of treatment efficacy. Zurlo et al. (2018) [85] reported that lower SES was associated with higher levels of distress and reduced quality of life, further emphasizing that economic hardship compounds the emotional burden of infertility. Moreover, financial limitations can restrict opportunities for early intervention and comprehensive care, leading to prolonged treatment durations and increased psychological strain. Ying et al. (2015) [83] noted that financial constraints often correlate with a lack of educational resources, which can diminish awareness of available coping mechanisms and support networks. In our study, the socio-economic distribution reinforces these observations, suggesting that interventions must be economically sensitive and culturally tailored to the unique needs of lower middle-class couples. Addressing economic

stressors alongside the clinical aspects of infertility could mitigate some of the associated depressive symptoms. Integrating financial counselling and support services into infertility treatment programs may improve overall treatment outcomes and reduce psychological distress, as noted in previous literature [81,83,85]. This socio-economic context highlights the importance of multidisciplinary approaches in infertility care that consider both the financial and emotional challenges faced by couples.

The occupational distribution revealed that 77.5% of the women were engaged in unskilled work, with only 7.5% in semi-skilled jobs and 15% in skilled professions. In contrast, 67.5% of men were in unskilled jobs, 22.5% in semi-skilled roles, and 10% in skilled positions. This occupational pattern suggests that a higher proportion of women are in lower-status jobs compared to men, potentially reflecting broader gender inequalities in employment and educational opportunities. Valoriani et al. (2016) [84] found that lower educational and occupational levels among women were linked to greater emotional distress and reduced psychophysical well-being during ART consultations. Similarly, Ying et al. (2015) [83] observed that limited occupational opportunities often correlate with lower self-esteem and heightened vulnerability to infertility-related stress. The disparity in semi-skilled employment between genders—where men are nearly three times more likely to be in semi-skilled roles—may provide men with better coping resources and greater financial autonomy, thereby influencing their ability to manage treatment costs and stress. Musa et al. (2014) [80] reported that wives with lower occupational status experienced significantly

higher depression and anxiety levels, suggesting that the lack of engaging work may limit women's social interactions and access to alternative support networks. Additionally, the predominance of unskilled work among women could contribute to a diminished sense of agency, exacerbating feelings of helplessness during the infertility journey. Occupational status is not only a marker of economic stability but also a determinant of social identity, which in turn influences mental health outcomes. Given these findings, it is critical for infertility treatment programs to incorporate counselling that addresses occupational stressors and gender-based disparities, thereby fostering improved emotional resilience and adaptive coping strategies among both partners [80,83,84].

A striking gender difference was seen in nicotine use. No women reported nicotine use, whereas 34.2% of men (41 individuals) reported smoking or chewing tobacco. This difference may be attributed to sociocultural norms, where tobacco use is more socially acceptable for men than for women, particularly in certain cultural contexts. Musa et al. (2014) [80] found that emotional coping strategies, including maladaptive behaviours like substance use, were more prevalent in men, suggesting that nicotine consumption might serve as a self-medication mechanism to manage stress. The absence of nicotine use among women in our study aligns with cultural expectations that discourage such behaviours among females, further reinforcing traditional gender roles. Kumar et al. (2024) [89] highlighted that lifestyle factors, including substance use, can significantly influence psychological outcomes in couples undergoing fertility treatment, although their study focused more on anxiety and depression levels rather than specific habits like nicotine

use. The high prevalence of nicotine use in men could have deleterious effects on fertility and overall health, potentially complicating treatment outcomes. Furthermore, nicotine has been linked to heightened stress responses and may interact with other coping behaviours to worsen psychological distress. While the current study did not directly correlate nicotine use with depression scores, it is plausible that this behaviour could serve as an additional risk factor for adverse health outcomes. In comparison, studies like those by Wu et al. (2014) [81] emphasize that biological factors and lifestyle choices significantly impact treatment efficacy and psychological well-being. These findings underscore the need for targeted lifestyle interventions, including smoking cessation programs, as part of a comprehensive infertility treatment plan. Addressing such health behaviours can not only improve physical outcomes but may also alleviate some aspects of psychological distress associated with infertility, ultimately contributing to better overall treatment success [80,81,89].

The distribution of treatment duration among participants revealed, 25.8% of couples had been undergoing treatment for less than 3 years, 47.5% for 3–5 years, and 26.7% for more than 5 years.

The extended duration of infertility treatment, with nearly three-quarters of participants receiving treatment for more than three years, underscores the chronic and often protracted nature of managing infertility. Prolonged treatment periods can exacerbate psychological distress by intensifying feelings of uncertainty, hopelessness, and fatigue. Wu et al. (2014) [81] identified long infertility duration (more than 6 years) as a significant risk factor for depression in women, while

Kumar et al. (2024) [89] observed that couples in both the early and extended phases of treatment exhibited heightened psychological distress. These findings align with our data, suggesting that longer treatment durations may amplify emotional strain. Zurlo et al. (2018) [85] also noted that couples with longer infertility durations experienced reduced benefits from coping strategies, highlighting the cumulative emotional toll of sustained treatment. Moreover, extended treatment duration can lead to financial strain and social isolation, further compounding stress levels. The chronicity of treatment necessitates ongoing psychological support and routine mental health screenings to identify emerging depressive symptoms early. Such measures could be critical in mitigating the adverse effects of prolonged treatment. The current study reinforces the importance of developing tailored interventions that address the unique challenges faced by couples at different stages of treatment, ensuring that both immediate and long-term psychological needs are met. In addition, counselling services that incorporate stress management, adaptive coping mechanisms, and realistic goal-setting may help reduce the emotional burden over time, ultimately contributing to improved treatment adherence and better overall outcomes [81,85,89]

Gender Differences in Depression

A significant gender disparity in depression was seen among couples undergoing infertility treatment (table 6), wherein, 59.2% of women screened positive for depression compared to only 32.5% of men. Such gender differences have been consistently reported in prior research. Musa et

al. (2014) [80] found that wives in couples with infertility reported significantly higher levels of depression, anxiety, and stress, attributing this disparity partly to the intense societal and self-imposed pressures on women to conceive. In addition, Pejušković et al. (2023) [88] reported that women in infertile groups had a mean Becks Depression Inventory (BDI) score of 19.5 compared to 13.2 in men, further substantiating the higher psychological burden on women. The current study's odds ratio of 3.01 also underscores the heightened risk for depression among female participants, emphasizing that the emotional toll of infertility is profoundly gendered. Moreover, cultural expectations in many societies, including those observed in our study setting, tend to place the primary responsibility for childbearing on women, thereby intensifying feelings of failure and guilt when conception does not occur. Ying et al. (2015) [83] also documented that women experience greater stigma, shame, and internalized distress, which can exacerbate depressive symptoms. These convergent findings indicate that gender-specific factors—including biological, psychosocial, and cultural influences—play a critical role in shaping the mental health outcomes of couples facing infertility. Therefore, integrating gender-sensitive screening tools and targeted interventions into infertility treatment programs is essential for mitigating depression and improving overall psychological well-being [80,83,88].

Comparison of phenomenology of depression across the two genders

The specific symptom of low mood as assessed by the PHQ-9, revealed that 56.7% of women reported experiencing low mood compared to 45.0% of men. Although this difference did not reach conventional statistical significance, it nonetheless suggests a trend toward a greater emotional burden among women. Low mood, as an indicator of underlying depressive symptomatology, has been frequently reported in the literature. Wu et al. (2014) [81] identified low mood as a common symptom among women undergoing IVF, with long infertility duration and low income further exacerbating this state. Similarly, Ying et al. (2015) [83] noted that women often experience heightened emotional distress due to societal expectations and internalized stigma, which can manifest as persistent low mood. The current data, while not statistically conclusive, are in line with these findings and suggest that even subthreshold differences in mood can have significant implications for overall psychological well-being. It is also noteworthy that the slightly lower prevalence of low mood in men may be influenced by social norms that discourage the expression of negative emotions. In contrast, women may be more attuned to their emotional states and more likely to report feelings of sadness. This difference underscores the importance of utilizing sensitive screening tools that can detect subtle variations in mood across genders. The trend observed in our study points to the need for early intervention strategies that target mood regulation, particularly among female patients. Tailored interventions, such as mindfulness-based therapies and cognitive restructuring techniques, could be beneficial in mitigating low mood and

preventing the progression to more severe depressive episodes. Continued research into gender-specific mood disturbances will further elucidate these differences and help refine clinical approaches to improve mental health outcomes in infertility treatment settings [81,83].

Anhedonia, defined as the loss of interest or pleasure, was reported by 31.7% of women compared to 16.7% of men, with this difference achieving statistical significance. Anhedonia is a core symptom of depression and is particularly debilitating because it undermines motivation and the capacity to derive satisfaction from everyday activities. The pronounced difference in anhedonia between genders reinforces the notion that women are more susceptible to experiencing deeper levels of emotional disengagement in the context of infertility. Musa et al. (2014) [80] also found that emotional-oriented coping, which can exacerbate feelings of anhedonia, was more prevalent among women, thereby heightening their risk for depressive symptoms. Similarly, Pejušković et al. (2023) [88] reported that women with infertility problems exhibited significantly higher depression scores, including symptoms such as anhedonia, compared to men. The current study's finding of a 31.7% prevalence among women underscores the need for clinical interventions that specifically address this symptom. Therapeutic strategies such as behavioural activation—which encourages engagement in rewarding activities—may be particularly beneficial for alleviating anhedonia. Moreover, the stark difference in anhedonia rates between women and men suggests that societal expectations and internalized pressures regarding motherhood could play a pivotal role in reducing the capacity for pleasure among women facing infertility. Addressing these

underlying issues through targeted counselling and support groups may help mitigate the impact of anhedonia and improve overall quality of life. The statistically significant difference highlights the critical need for gender-sensitive mental health services that not only treat depression broadly but also target its specific and often debilitating components, such as anhedonia, to foster better treatment outcomes [80,88].

Easy fatiguability is a symptom that reflects reduced energy and increased tiredness, and reports that 30.8% of women experienced this symptom compared to 20.0% of men. Although the difference did not reach statistical significance, the trend suggests that women may be more prone to experiencing fatigue during infertility treatment. Easy fatiguability can have significant repercussions on daily functioning and overall quality of life, particularly in the context of prolonged stress associated with infertility. Zurlo et al. (2019) [86] have previously noted that physical and mental exhaustion is a common complaint among women undergoing fertility treatments, which may be linked to both biological factors—such as hormonal fluctuations—and the cumulative emotional burden of infertility. Additionally, Kumar et al. (2024) [89] reported that fatigue was a contributing factor to the overall distress experienced by couples in the early and later stages of treatment, highlighting its impact on treatment adherence and well-being. The higher percentage of women reporting fatigue aligns with previous findings that suggest a gender predisposition toward greater somatic symptomatology. It is plausible that the cultural expectations placed on women to maintain high levels of domestic and professional functioning may exacerbate

feelings of fatigue when faced with the added stress of infertility. Interventions aimed at reducing fatigue—such as energy conservation techniques, stress management, and supportive counselling—may help alleviate this symptom. Further research with larger sample sizes may be needed to definitively establish the significance of easy fatigability differences between genders in this context. Nonetheless, the observed trend underscores the importance of addressing both psychological and physical symptoms as part of a holistic approach to infertility care [86,89].

Appetite disturbances was a notable symptom, with 31.7% of women reporting appetite issues compared to 18.3% of men, and was statistically significant. Appetite disturbances can serve as a somatic manifestation of underlying psychological distress, particularly in the context of chronic stress and depression. Wu et al. (2014) [81] documented that changes in appetite were common among women undergoing IVF, associating these disturbances with both biological factors such as hormonal imbalances and psychosocial stressors like financial constraints and prolonged treatment duration. In our study, the higher prevalence among women suggests that the emotional burden of infertility may disrupt normal eating patterns, potentially leading to nutritional deficiencies and further compromising health. Musa et al. (2014) [80] also reported that emotional coping strategies, which are more frequently adopted by women, can exacerbate physical

symptoms including appetite loss. This finding is critical as it underlines the interconnection between mental health and physical well-being. The significant difference observed in our sample, reinforces the need for integrated care approaches that address both psychological and somatic symptoms. Nutritional counselling, along with psychological support, could be beneficial in mitigating the impact of appetite disturbances. Moreover, the association of appetite changes with depressive symptoms—previously noted by Pejušković et al. (2023) [88]—suggests that interventions targeting overall depression may also alleviate appetite-related issues. This dual-focused approach is essential for improving treatment outcomes and ensuring that patients receive comprehensive care that addresses all facets of their well-being. The present data underscore the necessity for fertility clinics to implement routine screening for somatic symptoms such as appetite disturbances, thereby facilitating early intervention and holistic support for women experiencing infertility [80,81,88].

Sleep disturbances revealed that 45% of women reported issues with sleep compared to 32.5% of men with was statistically significant. Sleep disturbances are a common symptom of depression and anxiety and can significantly impair daily functioning and overall quality of life. In the context of infertility treatment, where prolonged stress is prevalent, sleep problems can exacerbate both psychological and physiological distress. Musa et al. (2014) [80] found that sleep disturbances were frequently reported by women undergoing infertility treatment, correlating with higher levels of stress and emotional exhaustion. Similarly, Wu et al. (2014) [81] highlighted that disrupted sleep

patterns were associated with hormonal imbalances and increased psychological vulnerability among women. The current study's finding of a 45% prevalence in women underscores the role of sleep quality as both a symptom and a contributing factor to depression. In contrast, the lower prevalence in men (32.5%) may reflect gender differences in how stress is internalized and reported. Ying et al. (2015) [83] emphasized that cultural norms often lead men to underreport symptoms such as sleep disturbances, thereby potentially masking the true extent of their psychological distress. Addressing sleep disturbances is critical because poor sleep quality can impair cognitive function, reduce resilience to stress, and hinder the effectiveness of coping strategies. Interventions such as cognitive-behavioural therapy for insomnia (CBT-I), relaxation techniques, and sleep hygiene education may be particularly beneficial for women in this context. Moreover, integrating sleep assessments into routine mental health screenings in fertility clinics can facilitate early detection and timely intervention. The significant difference observed in our study, reinforces the need for gender-sensitive treatment approaches that specifically address sleep-related issues, ultimately contributing to improved emotional well-being and better treatment outcomes for couples facing infertility [80,81,83].

Poor concentration is a cognitive symptom frequently associated with depression. The data indicate that 14.2% of women reported difficulties with concentration, in stark contrast to only 1.7% of men with this difference being highly significant. Poor concentration can significantly impair daily functioning, affecting work performance and the ability to engage in treatment-related

decision-making. Peterson et al. (2014) [82] observed that cognitive impairments, including poor concentration, were more pronounced in women with infertility and were strongly correlated with depressive symptom severity. This discrepancy may be partly due to the higher overall prevalence of depression in women, as noted in our study, and is compounded by the societal pressures and internalized stigma associated with infertility. Musa et al. (2014) [80] also highlighted that negative coping strategies, which are more common among women, can exacerbate cognitive symptoms, including difficulty concentrating. In contrast, the minimal reporting of concentration issues among men could be reflective of both underreporting due to cultural norms that discourage the acknowledgment of cognitive struggles and actual differences in the psychological processing of stress. Poor concentration rates between the genders, underscores the critical need for interventions that target cognitive symptoms. Cognitive-behavioural interventions and mindfulness-based stress reduction techniques may help improve concentration and overall cognitive functioning, thereby enhancing patient's ability to manage treatment-related stress. Given the substantial impact that poor concentration can have on both personal and professional life, addressing this symptom is essential for the comprehensive care of infertile couples.

In our study, 11.7% of women reported experiencing death wishes compared to only 1.7% of men, with this difference being statistically significant. The presence of death wishes is an alarming indicator of severe psychological distress and suicidal ideation, and its higher prevalence among women underscores the profound emotional burden they bear in the context of infertility.

Pejušković et al. (2023) [88] similarly found that infertile women exhibited higher scores on depression inventories, which included indicators of suicidal ideation, than their male counterparts. This disparity may be attributed to the intense societal pressure on women to fulfil traditional roles related to motherhood, as well as the internalization of blame and guilt when infertility occurs. Musa et al. (2014) [80] reported that emotional coping strategies, particularly those involving self-blame, were strongly associated with suicidal thoughts in women. Additionally, cultural factors play a significant role, as the stigma attached to infertility in many societies can intensify feelings of hopelessness and worthlessness. This indicates that urgent mental health interventions are necessary. Clinicians should prioritize screening for suicidal ideations in female patients undergoing infertility treatment, and interventions such as crisis counselling, intensive psychotherapy, and support groups may be warranted. The integration of gender-sensitive mental health services into fertility clinics can help identify and address these severe symptoms before they escalate. In summary, the marked disparity in death wishes between genders highlights the critical need for immediate and targeted psychological support for women, ensuring that their unique emotional challenges are addressed comprehensively [80,88].

Feelings of guilt among participants, revealing that 20.8% of women (25 individuals) reported experiencing guilt compared to only 1.7% of men (2 individuals), with the difference reaching high statistical significance. Guilt feelings are a core aspect of depressive symptomatology and may be particularly pronounced in the context of infertility, where cultural and societal

expectations often place the burden of childbearing on women. Musa et al. (2014) [80] found that emotional coping mechanisms, including self-blame and guilt, were more prevalent among women, contributing to higher depression and anxiety scores. Similarly, Valoriani et al. (2016) [84] observed that lower psychophysical well-being among women was frequently associated with feelings of guilt and inadequacy, especially in settings where infertility is heavily stigmatized. The present study's findings, with a 20.8% prevalence in women versus a mere 1.7% in men, highlight the gender-specific emotional toll of infertility. Such pronounced feelings of guilt can hinder adaptive coping and exacerbate overall psychological distress, creating a vicious cycle that may impact treatment adherence and satisfaction. Interventions that focus on cognitive restructuring and self-compassion may help alleviate these maladaptive guilt feelings. Moreover, peer support groups and couples counselling that address the cultural and social dynamics surrounding infertility can offer a pathway toward healthier emotional processing. The significant disparity in guilt between genders underscores the importance of tailored mental health services that not only address depressive symptoms in general but also specifically target the internalized shame and self-blame that many women experience. This gender-sensitive approach is vital for fostering resilience and improving overall psychological outcomes in couples undergoing infertility.

anxiousness reporting that 10.0% of women experienced significant anxiousness compared to only 1.7% of men, indicating a statistical significance. Anxiety is a common comorbidity of depression and can be particularly debilitating when compounded by the stress of infertility treatment. Kumar

et al. (2024) [89] demonstrated that anxiety scores were higher in female patients undergoing assisted reproductive treatments, suggesting that the pressure to conceive and the fear of treatment failure contribute substantially to anxiety levels. The higher incidence of anxiousness in women may also be reflective of societal norms that place a disproportionate burden on women for childbearing, leading to heightened emotional reactivity in the face of infertility. Musa et al. (2014) [80] noted that emotional-oriented coping strategies were associated with increased anxiety, and our findings of 10.0% prevalence in women support this observation. Conversely, the low percentage in men (1.7%) may be influenced by cultural tendencies for men to underreport symptoms of anxiety due to stigma or internalized norms of stoicism. The significant difference between genders underscores the need for early detection and targeted interventions for anxiety in female patients. Cognitive-behavioural therapy (CBT) and mindfulness-based stress reduction (MBSR) have shown promise in reducing anxiety levels and improving overall emotional well-being. Addressing anxiety in the context of infertility treatment is critical because elevated anxiety can impair decision-making, treatment adherence, and quality of life. By incorporating routine anxiety assessments into fertility care, clinicians can better identify at-risk individuals and implement timely, tailored interventions. This proactive approach will ultimately contribute to improved treatment outcomes and enhanced psychological resilience among couples facing infertility challenges [80,89].

Coping Skills Across Genders in Infertility Treatment (brief- COPE)

Examines the distribution of coping strategies between genders. It was observed that the negative coping strategies remain disproportionately higher in women, with 57.75% engaging in maladaptive behaviours compared to only 18% of men, and the calculated odds ratio of 6.25. The replication of these findings underscores the critical importance of coping strategies as determinants of psychological outcomes during infertility treatment. Previous studies have highlighted that negative coping mechanisms, such as avoidance and self-blame, are linked to higher levels of depression and anxiety. For example, Musa et al. (2014) [80] demonstrated that emotional coping was associated with increased odds of depression (OR = 2.5) across genders, particularly in women. Similarly, Zurlo et al. (2019) [86] stressed that positive coping strategies and effective dyadic adjustment are essential for mitigating psychological distress, yet our findings indicate that women may not fully benefit from these protective factors due to a higher reliance on negative coping. Brigance et al. (2020) [87] underscored the effectiveness of emotionally focused couples therapy (EFCT) in promoting adaptive coping, suggesting that targeted interventions can help reframe negative behaviours and foster more constructive responses. The persistence of negative coping in women may reflect the interplay of cultural, social, and biological factors that uniquely impact female psychological resilience during infertility. These findings advocate for the integration of tailored mental health interventions in fertility clinics, emphasizing the need to educate couples on adaptive coping strategies and to provide gender-sensitive counselling. Such initiatives can facilitate better emotional regulation, reduce the prevalence of depressive

symptoms, and ultimately improve overall treatment outcomes. Addressing these disparities in coping is paramount to enhancing the quality of life and emotional well-being for couples navigating infertility [80,86,87].

STRENGTHS AND LIMITATIONS

This study possesses several strengths that contribute to the relevance of its findings. One of the most notable strengths is the inclusion of both male and female participants, allowing for a comprehensive exploration of gender differences in depression and coping mechanisms among couples undergoing infertility treatment. The study's design, which incorporates a sizeable sample of 240 participants (120 couples), enhances the statistical power and reliability of the observed differences. The use of standardized and validated instruments, such as the Patient Health Questionnaire-9 for depression and brief cope inventory, ensures that the psychological constructs are measured with accuracy and consistency.

While the study provides valuable insights, several limitations must be acknowledged, along with directions for future research. One of the primary limitations is the cross-sectional design, which captures data at a single point in time and restricts the ability to establish causality between infertility treatment and psychological outcomes. Additionally, the sample is drawn from a specific geographical and socio-economic context, which may limit the generalizability of the findings to other populations or settings.

CONCLUSION

The findings of this study tell us about the psychological burden associated with infertility treatment with significant differences in coping strategies. Both men and women were diagnosed with depression, wherein, women exhibited higher severity and frequency of depression compared to their spouses. Furthermore, Women tended to utilise more emotion-focused and maladaptive coping mechanisms in contrast to men who frequently adopted problem-focused and adaptive coping strategies.

These insights emphasize the critical need for integrating mental health support and coping strategy interventions into infertility care. Addressing depression proactively and adopting constructive coping mechanisms can ultimately promote a more supportive and effective therapeutic journey for the couples.

SUMMARY

- This was a cross-sectional descriptive study conducted in KLES Dr Prabhakar Kore hospital and research centre under the Department of Psychiatry, which included 240 participants (120 couples) seeking infertility treatment.
- The objectives were to assess the gender differences in terms of prevalence and phenomenology of depression among couples seeking infertility treatment and to compare the coping strategies across genders in the same population.
- In this study the mean participant age was 28.2 ± 3.95 in women and 31.3 ± 3.36 in males. Majority of the couples belonged to the lower middle socioeconomic class (72.5%).
- Depression was more prevalent in women than their spouses (59.2% vs 32.5%), with an odds ratio of 3.01, which means women have thrice the risk of developing depression than their spouses.
- Women as compared to men reported higher rates of anhedonia (31.7% vs. 16.7%), sleep disturbances (45% vs. 32.5%), appetite disturbances (31.7% vs. 18.3%), poor concentration (14.2% vs. 1.7%), guilt (20.8% vs. 1.7%), anxiousness (10.0% vs. 1.7%), and death wishes (11.7% vs. 1.7%). Although low mood and easy fatigability were more common in women, these differences did not reach statistical significance.

- A significant difference was noted in coping strategies with women adopting more of negative coping strategies in comparison to their spouses who used more of positive coping strategies (57.75% vs 18%). odds ratio was 6.25, meaning, women had 6 times higher chances of adopting maladaptive coping mechanisms.
- These findings suggest that women undergoing infertility treatment are at increased risk of developing depression, potentially exacerbated by sociocultural pressures, limited economic agency, and a greater exposure to infertility related stressors, and tend to employ maladaptive coping strategies in comparison to their spouses.

BIBLIOGRAPHY

1. Hjelmstedt A, Andersson L, Skoog-Svanberg A, Bergh T, Boivin J, Collins A. Gender differences in psychological reactions to infertility among couples seeking IVF-and ICSI-treatment. *Acta obstetricia et gynecologica Scandinavica*. 1999 Jan 1;78(1):42-9.
2. Peterson BD, Newton CR, Rosen KH, Schulman RS. Coping processes of couples experiencing infertility. *Family Relations*. 2006 Apr;55(2):227-39.
3. Edelman RJ, Connolly KJ. Gender differences in response to infertility and infertility investigations: Real or illusory. *British journal of health psychology*. 2000 Nov;5(4):365-75.
4. Read SC, Carrier ME, Boucher ME, Whitley R, Bond S, Zelkowitz P. Psychosocial services for couples in infertility treatment: what do couples really want?. *Patient education and counseling*. 2014 Mar 1;94(3):390-5.
5. Gullo G, Cucinella G, Perino A, Gullo D, Segreto D, Laganà AS, Buzzaccarini G, Donarelli Z, Marino A, Allegra A, Maranto M. The gender gap in the diagnostic-therapeutic journey of the infertile couple. *International journal of environmental research and public health*. 2021 Jun 8;18(12):6184.
6. Abbey A, Andrews FM, Halrnan LJ. Gender's role in responses to infertility. *Psychology of women Quarterly*. 1991 Jun;15(2):295-316.

7. Patel A, Sharma PS, Kumar P, Binu VS. Illness cognitions, anxiety, and depression in men and women undergoing fertility treatments: a dyadic approach. *Journal of human reproductive sciences*. 2018 Apr 1;11(2):180-9.
8. Redshaw M, Hockley C, Davidson LL. A qualitative study of the experience of treatment for infertility among women who successfully became pregnant. *Human Reproduction*. 2007 Jan 1;22(1):295-304.
9. Nagy E, Nagy BE. Coping with infertility: Comparison of coping mechanisms and psychological immune competence in fertile and infertile couples. *Journal of health psychology*. 2016 Aug;21(8):1799-808.
10. Onat G, Beji NK. Effects of infertility on gender differences in marital relationship and quality of life: a case-control study of Turkish couples. *European journal of obstetrics & gynecology and reproductive biology*. 2012 Dec 1;165(2):243-8.
11. Lewiński A, Brzozowska M. Female infertility as a result of stress-related hormonal changes. *Gynecological and Reproductive Endocrinology and Metabolism*. 2022;3(2-3).
12. Whirledge S, Cidlowski JA. Glucocorticoids, stress, and fertility. *Minerva endocrinologica*. 2010 Jun;35(2):109.
13. DITZEN B, LOUCKS TL, BERGA SL. The role of Stress in Infertility. *Integrative Women's Health*. 2010 Feb 26;4:250.
14. Sapkota NK, Shah DK, Islam MN. Stress and infertility-An overview. *International Journal of Pharmaceutical & Biological Archives*. 2012;3(5):1017-24.

15. Basu SC. Psychological stress and male infertility. In *Male Infertility: A Complete Guide to Lifestyle and Environmental Factors* 2014 Jun 27 (pp. 141-159). New York, NY: Springer New York.
16. Gołyszny M, Obuchowicz E, Zieliński M. Neuropeptides as regulators of the hypothalamus-pituitary-gonadal (HPG) axis activity and their putative roles in stress-induced fertility disorders. *Neuropeptides*. 2022 Feb 1;91:102216.
17. Toufexis D, Rivarola MA, Lara H, Viau V. Stress and the reproductive axis. *Journal of neuroendocrinology*. 2014 Sep;26(9):573-86.
18. Schenker JG, Meirou D, Schenker E. Stress and human reproduction. *European Journal of Obstetrics & Gynecology and Reproductive Biology*. 1992 Jun 16;45(1):1-8.
19. Luisi S, Pizzo A, Pinzauti S, Zupi E, Centini G, Lazzeri L, Di Carlo C, Petraglia F. Neuroendocrine and stress-related aspects of endometriosis. *Neuroendocrinology Letters*. 2015 Jan 1;36(1):15-23.
20. Garg D, Berga SL. Neuroendocrine mechanisms of reproduction. *Handbook of Clinical Neurology*. 2020 Jan 1;171:3-23.
21. Valentine DP. Psychological impact of infertility: Identifying issues and needs. *Social work in health care*. 1986 Dec 1;11(4):61-9.
22. Hasanpoor-Azghdy SB, Simbar M, Vedadhir A. The emotional-psychological consequences of infertility among infertile women seeking treatment: Results of a qualitative study. *Iranian journal of reproductive medicine*. 2014 Feb;12(2):131.

23. Podolska M, Bidzan M. Infertility as a psychological problem. *Ginekologia Polska*. 2011;82(1).
24. Luk BH, Loke AY. The impact of infertility on the psychological well-being, marital relationships, sexual relationships, and quality of life of couples: A systematic review. *Journal of sex & marital therapy*. 2015 Nov 2;41(6):610-25.
25. Edelman RJ, Connolly KJ. Psychological aspects of infertility. *British Journal of Medical Psychology*. 1986 Sep;59(3):209-19.
26. Dooley M, Dineen T, Sarma K, Nolan A. The psychological impact of infertility and fertility treatment on the male partner. *Human fertility*. 2014 Sep 1;17(3):203-9.
27. Schmidt L. Social and psychological consequences of infertility and assisted reproduction—what are the research priorities?. *Human fertility*. 2009 Jan 1;12(1):14-20.
28. Simionescu G, Doroftei B, Maftai R, Obreja BE, Anton E, Grab D, Ilea C, Anton C. The complex relationship between infertility and psychological distress. *Experimental and Therapeutic Medicine*. 2021 Apr 1;21(4):1-.
29. Lykeridou K, Gourounti K, Deltsidou A, Loutradis D, Vaslamatzis G. The impact of infertility diagnosis on psychological status of women undergoing fertility treatment. *Journal of Reproductive and Infant Psychology*. 2009 Aug 1;27(3):223-37.

30. Domar AD, Zuttermeister PC, Friedman R. The psychological impact of infertility: a comparison with patients with other medical conditions. *Journal of psychosomatic obstetrics and gynaecology*. 1993 Jan 1;14:45-52.
31. Andrei F, Salvatori P, Cipriani L, Damiano G, Dirodi M, Trombini E, Rossi N, Porcu E. Self-efficacy, coping strategies and quality of life in women and men requiring assisted reproductive technology treatments for anatomical or non-anatomical infertility. *European Journal of Obstetrics & Gynecology and Reproductive Biology*. 2021 Sep 1;264:241-6.
32. Casu G, Ulivi G, Zaia V, Fernandes Martins MD, Parente Barbosa C, Gremigni P. Spirituality, infertility-related stress, and quality of life in Brazilian infertile couples: Analysis using the actor-partner interdependence mediation model. *Research in nursing & health*. 2018 Apr;41(2):156-65.
33. Aarts JW, Van Empel IW, Boivin J, Nelen WL, Kremer JA, Verhaak CM. Relationship between quality of life and distress in infertility: a validation study of the Dutch FertiQoL. *Human Reproduction*. 2011 May 1;26(5):1112-8.
34. Zaki L, Rabinor R. Fertility Counseling with Groups. *Fertility Counseling: Clinical Guide*. 2022 Dec 8:59.
35. Li H, Lei J, Xu F, Yan C, Guimerans M, Xing H, Sun Y, Zhang D. A study of sociocultural factors on depression in Chinese infertile women from Hunan Province. *Journal of Psychosomatic Obstetrics & Gynecology*. 2017 Jan 2;38(1):12-20.

36. Hamid OA, Alrawaili ND, Alrawaili BD, Alanazi WS, Alanazi FS. Female Infertility Associated Depression and Anxiety: A Comprehensive Review. *Metallurgical and Materials Engineering*. 2024 Dec 14;30(4):370-80.
37. Bai CF, Sun JW, Li J, Jing WH, Zhang XK, Zhang X, Ma LL, Yue R, Cao FL. Gender differences in factors associated with depression in infertility patients. *Journal of advanced nursing*. 2019 Dec;75(12):3515-24.
38. Lam TQ, Linh TT, Thuy LB. The impact of social support on infertility-related stress: A study in the vietnamese context. *Open Journal of Social Sciences*. 2021 Dec 7;9(12):259-73.
39. Vasudevan SR, Bhuvaneshwari M. Sociocultural Perspectives on Infertility: Examining the Psychological Burdens, Attitudes, Coping Methods, and Societal Impact in India and Beyond. *Journal for ReAttach Therapy and Developmental Diversities*. 2023 Oct 30;6(1):507-15.
40. Logan S, Gu R, Li W, Xiao S, Anazodo A. Infertility in China: Culture, society and a need for fertility counselling. *Asian Pacific Journal of Reproduction*. 2019 Jan 1;8(1):1-6.
41. Donkor ES, Sandall J. The impact of perceived stigma and mediating social factors on infertility-related stress among women seeking infertility treatment in Southern Ghana. *Social science & medicine*. 2007 Oct 1;65(8):1683-94.
42. Shin H, Lee J, Kim SJ, Jo M. Associations of symptoms of depression, social support, and quality of life among Korean women who experience infertility. *Journal of Obstetric, Gynecologic & Neonatal Nursing*. 2021 Nov 1;50(6):e1-2.

43. Martins MV, Peterson BD, Almeida V, Mesquita-Guimarães J, Costa ME. Dyadic dynamics of perceived social support in couples facing infertility. *Human Reproduction*. 2014 Jan 1;29(1):83-9.
44. Horstman HK, Morrison S. Interpersonal Communication Surrounding Infertility and Miscarriage. *Communicating intimate health*. 2021 Apr 14:157.
45. Shreffler KM, Gallus KL, Peterson B, Greil AL. Couples and infertility. *The handbook of systemic family therapy*. 2020 May 11;3:385-406.
46. Klitzman R. Impediments to communication and relationships between infertility care providers and patients. *BMC women's health*. 2018 Dec;18:1-2.
47. Yao H, Chan CH, Hou Y, Chan CL. Ambivalence experienced by infertile couples undergoing IVF: a qualitative study. *Human Fertility*. 2023 Mar 15;26(2):289-301.
48. Fieldsend M, Smith JA. Interpersonal dynamics of women in midlife living with involuntary childlessness. *Journal of Adult Development*. 2022 Jun;29(2):159-70.
49. Koser K. Fertility counseling with couples: A theoretical approach. *The Family Journal*. 2020 Jan;28(1):25-32.
50. Thompson J. The effectiveness of couple therapy on psychological and relational variables and pregnancy rates in couples with infertility: A systematic review. *Australian and New Zealand Journal of Family Therapy*. 2021 Jun;42(2):120-44.
51. Mir RZ, Zahid S, Ehsan S. Effect of relationship dynamics and isolation on mental health of infertile women. *Khyber Medical University Journal*. 2020 Sep 30;12(3):238-44.

52. Sharma A, Shrivastava D, Sharma IV A. Psychological problems related to infertility. *Cureus*. 2022 Oct 15;14(10).
53. Chamorro PP, Herruzo J, Pino MJ, Casas-Rosal JC. Coping, social support and medical factors on psychosocial impact in couples experiencing infertility. *Journal of Sex & Marital Therapy*. 2024 Feb 17;50(2):197-215.
54. Nagy E, Nagy BE. Coping with infertility: Comparison of coping mechanisms and psychological immune competence in fertile and infertile couples. *Journal of health psychology*. 2016 Aug;21(8):1799-808.
55. García-Quintáns L, Limiñana-Gras RM, Sánchez-López MP, Patró-Hernández RM. Dyadic and emotional adjustment in infertile couples. *Family Relations*. 2023 Dec;72(5):3152-66.
56. Hocaoglu C. The psychosocial aspect of infertility. *Infertility, assisted reproductive technologies and hormone assays*. 2019 Jul 17;65:75-8.
57. Burns LH. Psychiatric aspects of infertility and infertility treatments. *Psychiatric Clinics of North America*. 2007 Dec 1;30(4):689-716.
58. Cousineau TM, Domar AD. Psychological impact of infertility. *Best practice & research Clinical obstetrics & gynaecology*. 2007 Apr 1;21(2):293-308.
59. Massarotti C, Gentile G, Ferreccio C, Scaruffi P, Remorgida V, Anserini P. Impact of infertility and infertility treatments on quality of life and levels of anxiety and depression in women undergoing in vitro fertilization. *Gynecological Endocrinology*. 2019 Jun 3;35(6):485-9.

60. Hämmerli K, Znoj H, Barth J. The efficacy of psychological interventions for infertile patients: a meta-analysis examining mental health and pregnancy rate. *Human reproduction update*. 2009 May 1;15(3):279-95.
61. Klemetti R, Raitanen J, Sihvo S, Saarni S, Koponen P. Infertility, mental disorders and well-being—a nationwide survey. *Acta obstetricia et gynecologica Scandinavica*. 2010 May;89(5):677-82.
62. Lykeridou K, Gourounti K, Deltsidou A, Loutradis D, Vaslamatzis G. The impact of infertility diagnosis on psychological status of women undergoing fertility treatment. *Journal of reproductive and infant psychology*. 2009 Aug 1;27(3):223-37.
63. Lourenço MF. Psychological and cross-cultural aspects of infertility and human sexuality. *Adv Psychosom Med*. 2011 Oct 10;31:164-83.
64. Hamid OA, Alrawaili ND, Alrawaili BD, Alanazi WS, Alanazi FS. Female Infertility Associated Depression and Anxiety: A Comprehensive Review. *Metallurgical and Materials Engineering*. 2024 Dec 14;30(4):370-80.
65. Rahimi R, Hasanpour S, Mirghafourvand M, Esmailpour K. Effect of Hope-oriented group counseling on mental health of infertile women with failed IVF cycles: a randomized controlled trial. *BMC psychiatry*. 2021 Jun 2;21(1):286.
66. Sax MR, Lawson AK. Emotional support for infertility patients: integrating mental health professionals in the fertility care team. *Women*. 2022 Mar 4;2(1):68-75.

67. Wilkins KM, Warnock JK, Serrano E. Depressive symptoms related to infertility and infertility treatments. *Psychiatric Clinics*. 2010 Jun 1;33(2):309-21.
68. Crawford NM, Hoff HS, Mersereau JE. Infertile women who screen positive for depression are less likely to initiate fertility treatments. *Human reproduction*. 2017 Mar 1;32(3):582-7.
69. Hämmerli K, Znoj H, Barth J. Psychological interventions for infertile couples: does gender matter?. *Geburtshilfe und Frauenheilkunde*. 2011 Oct;71(10):838-46.
70. Koochaksaraei FY, Simbar M, Khoshnoodifar M, Faramarzi M, Nasiri M. Interventions promoting mental health dimensions in infertile women: a systematic review. *BMC psychology*. 2023 Aug 31;11(1):254.
71. Masoumi SZ, Parsa P, Kalhori F, Mohagheghi H, Mohammadi Y. What psychiatric interventions are used for anxiety disorders in infertile couples? A systematic review study. *Iranian Journal of Psychiatry*. 2019 Apr;14(2):160.
72. Najafi M, Soleimani AA, Ahmadi K, Javidi N, Kamkar EH. The effectiveness of emotionally focused therapy on enhancing marital adjustment and quality of life among infertile couples with marital conflicts. *International journal of fertility & sterility*. 2015 Jul;9(2):238.
73. Hamzehgardeshi Z, Shahhosseini Z, Rezaei M. The role of counseling Interventions on different dimensions of Infertile Couples' Health: A Systematic Review. *Journal of Mazandaran University of Medical Sciences*. 2019 Mar 10;28(170):225-36.

74. Davidová K, Pechová O. Infertility and assisted reproduction technologies through a gender lens. *Human Affairs*. 2014 Jul 1;24(3):363-75.
75. Abdollahpour S, Taghipour A, Mousavi Vahed SH, Latifnejad Roudsari R. The efficacy of cognitive behavioural therapy on stress, anxiety and depression of infertile couples: a systematic review and meta-analysis. *Journal of Obstetrics and Gynaecology*. 2022 Feb 17;42(2):188-97.
76. Nachtigall RD, Becker G, Wozny M. The effects of gender-specific diagnosis on men's and women's response to infertility. *Fertility and sterility*. 1992 Jan 1;57(1):113-21.
77. Vioreanu AM. The psychological impact of infertility. Directions for the development of interventions. *Mental Health: Global Challenges*. 2021;4(1):22-37.
78. Ma F, Cao H, Song L, Liao X, Liu X. Study on risk factors for depression in female infertile patients and evaluation of efficacy of psychological nursing intervention. *Int J Clin Exp Med*. 2018 Jan 1;11(4):4030-8.
79. Lamprou P, Sarantaki A, Gourounti K. Stress and anxiety levels in couples who undergo fertility treatment: a review of systematic reviews. *Materia Socio-Medica*. 2021 Mar;33(1):60.
80. Musa R, Ramli R, Yazmie AW, Khadijah MB, Hayati MY, Midin M, et al. A preliminary study of the psychological differences in infertile couples and their relation to the coping styles. *Compr Psychiatry*. 2014;55 Suppl 1:S65-9.

81. Wu G, Yin T, Yang J, Xu WM, Zou Y, Wang Y, et al. Depression and coping strategies of Chinese women undergoing in-vitro fertilization. *Eur J Obstet Gynecol Reprod Biol.* 2014;183:155-8.
82. Peterson B, Sejbaek CS, Pirritano M, Schmidt L. Are severe depressive symptoms associated with infertility-related distress in individuals and their partners? *Hum Reprod.* 2014;29(1):76-82.
83. Ying L, Wu L, Loke A. Gender differences in experiences with and adjustments to infertility: A literature review. *Int J Nurs Stud.* 2015;52(10):1640-52.
84. Valoriani V, Lotti F, Lari D, Miccinesi G, Vaiani S, Vanni C, et al. Differences in psychophysical well-being and signs of depression in couples undergoing their first consultation for assisted reproduction technology (ART): an Italian pilot study. *Eur J Obstet Gynecol Reprod Biol.* 2016;197:179-85.
85. Zurlo MC, Della Volta MFC, Vallone F. Predictors of quality of life and psychological health in infertile couples: the moderating role of duration of infertility. *Qual Life Res.* 2018;27:945-54.
86. Zurlo MC, Della Volta MFC, Vallone F. Infertility-related stress and psychological health outcomes in infertile couples undergoing medical treatments: Testing a multi-dimensional model. *J Clin Psychol Med Settings.* 2019;27:662-76.
87. Brigance CA, Brown E, Cottone RR. Therapeutic intervention for couples experiencing infertility: An emotionally focused couples therapy approach. *Fam J.* 2020;29:72-9.

88. Pejušković B, Tošković O, Ivanisevic M, Lero M, Durutovic O. Depression and distress in couples with infertility - who suffers more? *Srp Arh Celok Lek.* 2023;.
89. Kumar R, Dhillon H, Hashim U, Dhillon G, Sasidharan S. Anxiety and depression among couples undergoing treatment for infertility with assisted reproductive techniques at an Indian centre. *Natl Med J India.* 2024;36(5):286-90

ANNEXURE I- CONSENT FORMS

INFORMED CONSENT

CONSENT FOR PARTICIPATION IN RESEARCH “GENDER DIFFERENCES IN DEPRESSION AND COPING AMONG COUPLES GOING THROUGH INFERTILITY TREATMENT. A ONE YEAR CROSS-SECTIONAL HOSPITAL BASED DESCRIPTIVE STUDY”

PRINCIPAL INVESTIGATOR (PI): REGISTRATION NO: BQ0122002

Name of the participant-

Introduction and purpose of the study- you are being requested to participate in an observational study by REG.NO- BQ0122002 a postgraduate student in the Department of Psychiatry at Jawaharlal Nehru Medical College, KLE University, Belgaum, Karnataka, to investigate the prevalence of Depression and coping among couples going through infertility treatment.

Explanation of procedure: After obtaining a written informed consent from you, a short interview will be conducted, followed by an assessment by applying two questionnaires that would help me in screening for depression and knowing about the treatment compliance of the patients.

Withdrawal from participation in the study: Participation in this study is voluntary. You will be free to decide whether to participate in this study or continue participating once enrolled. If you decide to withdraw your participation, you will be free to do so. Please convey your decision to the principal investigator.

Possible benefits of participating in the study: you will not get any benefit from participating in the study. The gathered data will help the population at large.

Possible risks from participating in the study: There are no risks associated with taking part in this research. If medical attention is required, it will be given to you without charge.

Privacy and confidentiality: All data collected or disclosed by you during the course of participation of study, will be kept fully confidential. If, however, during the course it becomes necessary for the progress of the course to disclose the identity, it would be done so only after your informed & written consent. The only people to know that you are a research subject are members of the research team. No information about you will be disclosed to other without your written permission except: In emergency to protect your rights and welfare or if required by law.

Financial incentives for participation: No additional costs shall be incurred upon you for the purpose of this study. It is purely being done with the idea of research and all the cost of study will be borne by the investigator.

The cost of investigations -are not applicable

Authorization to publish result: The results of the study may be used to publish an article. When the results of research published or discussed, in a conference, no information will be

displayed that would disclose your identity. Any information obtained in connection with this study and that can be identified with you will remain confidential.

Legal rights: By signing this consent form, we are not waiving any of your legal rights.

Questions: In case of any questions with regard to this study, you are free to contact:

REG NO BQ0122002

Postgraduate, Department of Psychiatry, J.N. Medical College

KAHER, Belagavi- 590010

In case of the queries during study or in future you may contact following-

Dr. HARSHA HEGDE,

Chairperson,

Jawaharlal Nehru Medical College

Ethical Committee for Human Research,

Belagavi- 590010

Participant's name:

Sign/thumb print:

Investigator's sign:

CONSENT STATEMENT

I am making a voluntary decision to participate in the study, '**GENDER DIFFERENCES IN DEPRESSION AND COPING AMONG COUPLES GOING THROUGH INFERTILITY TREATMENT- A CROSS -SECTIONAL DESCRIPTIVE STUDY**'. My signature below indicates that I have decided to participate and I have read the information provided above or the information provided above has been read to me in a language that I understand best. I was given the opportunity to ask questions, and they were answered satisfactorily.

Name of the participant:

Signature or left -thumb impressions of the participant

Name of the witness:

Signature or left thumb impression of the witness:

Name of the investigator:

Signature of the investigator:

ಮಾಹಿತಿಯುಕ್ತ ಒಪ್ಪಿಗೆ-

“ಬಂಜೆತನದ ಚಿಕಿತ್ಸೆಯ ಮೂಲಕ ಸಾಗುತ್ತಿರುವ ದಂಪತಿಗಳಲ್ಲಿ ಖಿನ್ನತೆ ಮತ್ತು ನಿಭಾಯಿಸುವಲ್ಲಿ ಲಿಂಗ ವ್ಯತ್ಯಾಸಗಳು. ಒಂದು ವರ್ಷದ ಅಡ್ಡ-ವಿಭಾಗೀಯ ಆಸ್ಪತ್ರೆ ಆಧಾರಿತ ವಿವರಣಾತ್ಮಕ ಅಧ್ಯಯನ” ಎಂಬ ವಿಷಯದ ಕುರಿತು ಸಂಶೋಧನೆಯಲ್ಲಿ ಭಾಗವಹಿಸಲು ಒಪ್ಪಿಗೆ

ಪ್ರಧಾನ ತನಿಖಾಧಿಕಾರಿ (PI): ನೋಂದಣಿ ಸಂಖ್ಯೆ: BQ0122002

ಭಾಗವಹಿಸುವವರ ಹೆಸರು-

ಅಧ್ಯಯನದ ಪರಿಚಯ ಮತ್ತು ಉದ್ದೇಶ- ಕರ್ನಾಟಕದ ಬೆಳಗಾವಿಯ ಕೆಎಲ್‌ಇ ವಿಶ್ವವಿದ್ಯಾಲಯದ ಜವಾಹರಲಾಲ್ ನೆಹರು ವೈದ್ಯಕೀಯ ಕಾಲೇಜಿನ ಮನೋವೈದ್ಯಶಾಸ್ತ್ರ ವಿಭಾಗದ ಸ್ನಾತಕೋತ್ತರ ವಿದ್ಯಾರ್ಥಿ REG.NO- BQ0122002 ಅವರು ಬಂಜೆತನದ ಚಿಕಿತ್ಸೆಗೆ ಒಳಗಾಗುತ್ತಿರುವ ದಂಪತಿಗಳಲ್ಲಿ ಖಿನ್ನತೆಯ ಹರಡುವಿಕೆ ಮತ್ತು ನಿಭಾಯಿಸುವಿಕೆಯನ್ನು ತನಿಖೆ ಮಾಡಲು ನಡೆಸುವ ವಿಶ್ಲೇಷಣಾ ಅಧ್ಯಯನದಲ್ಲಿ ಭಾಗವಹಿಸಲು ನಿಮ್ಮನ್ನು ವಿನಂತಿಸಲಾಗುತ್ತಿದೆ.

ಕಾರ್ಯವಿಧಾನದ ವಿವರಣೆ: ನಿಮ್ಮಿಂದ ಲಿಖಿತ ಮಾಹಿತಿಯುಕ್ತ ಒಪ್ಪಿಗೆಯನ್ನು ಪಡೆದ ನಂತರ, ಒಂದು ಸಣ್ಣ ಸಂದರ್ಶನವನ್ನು ನಡೆಸಲಾಗುತ್ತದೆ, ನಂತರ ಎರಡು ಪ್ರಶ್ನಾವಳಿಗಳನ್ನು ಅನ್ವಯಿಸುವ ಮೂಲಕ ಮೌಲ್ಯಮಾಪನ

ಮಾಡಲಾಗುತ್ತದೆ, ಅದು ಖಿನ್ನತೆಯನ್ನು ಪರಿಹರಿಸಲು ಮತ್ತು ರೋಗಿಗಳ ಚಿಕಿತ್ಸೆಯ ಅನುಸರಣೆಯ ಬಗ್ಗೆ ತಿಳಿದುಕೊಳ್ಳಲು ನನಗೆ ಸಹಾಯ ಮಾಡುತ್ತದೆ.

ಅಧ್ಯಯನದಲ್ಲಿ ಭಾಗವಹಿಸುವಿಕೆಯಿಂದ ಹಿಂತೆಗೆದುಕೊಳ್ಳುವಿಕೆ: ಈ ಅಧ್ಯಯನದಲ್ಲಿ ಭಾಗವಹಿಸುವುದು ಸ್ವಯಂಪ್ರೇರಿತವಾಗಿದೆ. ಈ ಅಧ್ಯಯನದಲ್ಲಿ ಭಾಗವಹಿಸಬೇಕೆ ಅಥವಾ ದಾಖಲಾದ ನಂತರ ಭಾಗವಹಿಸುವುದನ್ನು ಮುಂದುವರಿಸಬೇಕೆ ಎಂದು ನಿರ್ಧರಿಸಲು ನೀವು ಸ್ವತಂತ್ರರಾಗಿರುತ್ತೀರಿ. ನಿಮ್ಮ ಭಾಗವಹಿಸುವಿಕೆಯನ್ನು ಹಿಂತೆಗೆದುಕೊಳ್ಳಲು ನೀವು ನಿರ್ಧರಿಸಿದರೆ, ನೀವು ಹಾಗೆ ಮಾಡಲು ಮುಕ್ತರಾಗಿರುತ್ತೀರಿ. ದಯವಿಟ್ಟು ನಿಮ್ಮ ನಿರ್ಧಾರವನ್ನು ಪ್ರಧಾನ ತನಿಖಾಧಿಕಾರಿಗೆ ತಿಳಿಸಿ.

ಅಧ್ಯಯನದಲ್ಲಿ ಭಾಗವಹಿಸುವುದರಿಂದಾಗುವ ಸಂಭಾವ್ಯ ಪ್ರಯೋಜನಗಳು: ಅಧ್ಯಯನದಲ್ಲಿ ಭಾಗವಹಿಸುವುದರಿಂದ ನಿಮಗೆ ಯಾವುದೇ ಪ್ರಯೋಜನ ಸಿಗುವುದಿಲ್ಲ. ಸಂಗ್ರಹಿಸಿದ ದತ್ತಾಂಶವು ಜನಸಂಖ್ಯೆಗೆ ಹೆಚ್ಚಿನ ಸಹಾಯ ಮಾಡುತ್ತದೆ.

ಅಧ್ಯಯನದಲ್ಲಿ ಭಾಗವಹಿಸುವುದರಿಂದಾಗುವ ಸಂಭಾವ್ಯ ಅಪಾಯಗಳು: ಈ ಸಂಶೋಧನೆಯಲ್ಲಿ ಭಾಗವಹಿಸುವುದರಿಂದಾಗುವ ಯಾವುದೇ ಅಪಾಯಗಳಿಲ್ಲ. ವೈದ್ಯಕೀಯ ಆರೈಕೆಯ ಅಗತ್ಯವಿದ್ದರೆ, ಅದನ್ನು ನಿಮಗೆ ಶುಲ್ಕವಿಲ್ಲದೆ ನೀಡಲಾಗುತ್ತದೆ.

ಗೌಪ್ಯತೆ ಮತ್ತು ಗೌಪ್ಯತೆ: ಅಧ್ಯಯನದ ಭಾಗವಹಿಸುವಿಕೆಯ ಸಮಯದಲ್ಲಿ ನೀವು ಸಂಗ್ರಹಿಸಿದ ಅಥವಾ ಬಹಿರಂಗಪಡಿಸಿದ ಎಲ್ಲಾ ಡೇಟಾವನ್ನು ಸಂಪೂರ್ಣವಾಗಿ ಗೌಪ್ಯವಾಗಿಡಲಾಗುತ್ತದೆ. ಆದಾಗ್ಯೂ, ಕೋರ್ಸ್‌ನ ಪ್ರಗತಿಗೆ ಗುರುತನ್ನು ಬಹಿರಂಗಪಡಿಸುವುದು ಅಗತ್ಯವಿದ್ದರೆ, ಅದನ್ನು ನಿಮ್ಮ ಮಾಹಿತಿಯುಕ್ತ ಮತ್ತು ಲಿಖಿತ ಒಪ್ಪಿಗೆಯ ನಂತರ ಮಾತ್ರ ಮಾಡಲಾಗುತ್ತದೆ. ನೀವು ಸಂಶೋಧನಾ ವಿಷಯ ಎಂದು ತಿಳಿದಿರುವ ಏಕೈಕ ಜನರು ಸಂಶೋಧನಾ ತಂಡದ ಸದಸ್ಯರು. ನಿಮ್ಮ ಲಿಖಿತ ಅನುಮತಿಯಿಲ್ಲದೆ ನಿಮ್ಮ ಬಗ್ಗೆ ಯಾವುದೇ ಮಾಹಿತಿಯನ್ನು ಇತರರಿಗೆ ಬಹಿರಂಗಪಡಿಸಲಾಗುವುದಿಲ್ಲ, ಹೊರತುಪಡಿಸಿ: ತುರ್ತು ಸಂದರ್ಭಗಳಲ್ಲಿ ನಿಮ್ಮ ಹಕ್ಕುಗಳು ಮತ್ತು ಕಲ್ಯಾಣವನ್ನು ರಕ್ಷಿಸಲು ಅಥವಾ ಕಾನೂನಿನಿಂದ ಅಗತ್ಯವಿದ್ದರೆ.

ಭಾಗವಹಿಸುವಿಕೆಗೆ ಆರ್ಥಿಕ ಪ್ರೋತ್ಸಾಹ: ಈ ಅಧ್ಯಯನದ ಉದ್ದೇಶಕ್ಕಾಗಿ ನಿಮ್ಮ ಮೇಲೆ ಯಾವುದೇ ಹೆಚ್ಚುವರಿ ವೆಚ್ಚಗಳನ್ನು ವಿಧಿಸಲಾಗುವುದಿಲ್ಲ. ಇದನ್ನು ಸಂಪೂರ್ಣವಾಗಿ ಸಂಶೋಧನೆಯ ಕಲ್ಪನೆಯೊಂದಿಗೆ ಮಾಡಲಾಗುತ್ತಿದೆ ಮತ್ತು ಎಲ್ಲಾ ಅಧ್ಯಯನದ ವೆಚ್ಚವನ್ನು ತನಿಖಾಧಿಕಾರಿ ಭರಿಸುತ್ತಾರೆ.

ತನಿಖೆಯ ವೆಚ್ಚ - ಅನ್ವಯಿಸುವುದಿಲ್ಲ

ಫಲಿತಾಂಶವನ್ನು ಪ್ರಕಟಿಸಲು ಅಧಿಕಾರ: ಅಧ್ಯಯನದ ಫಲಿತಾಂಶಗಳನ್ನು ಲೇಖನವನ್ನು ಪ್ರಕಟಿಸಲು ಬಳಸಬಹುದು. ಸಮ್ಮೇಳನದಲ್ಲಿ ಸಂಶೋಧನೆಯ ಫಲಿತಾಂಶಗಳನ್ನು ಪ್ರಕಟಿಸಿದಾಗ ಅಥವಾ ಚರ್ಚಿಸಿದಾಗ, ನಿಮ್ಮ ಗುರುತನ್ನು ಬಹಿರಂಗಪಡಿಸುವ ಯಾವುದೇ ಮಾಹಿತಿಯನ್ನು ಪ್ರದರ್ಶಿಸಲಾಗುವುದಿಲ್ಲ. ಈ ಅಧ್ಯಯನಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ ಪಡೆದ ಮತ್ತು ನಿಮ್ಮೊಂದಿಗೆ ಗುರುತಿಸಬಹುದಾದ ಯಾವುದೇ ಮಾಹಿತಿಯನ್ನು ಗೌಪ್ಯವಾಗಿಡಲಾಗುತ್ತದೆ.

ಕಾನೂನು ಹಕ್ಕುಗಳು: ಈ ಸಮ್ಮತಿ ನಮೂನೆಗೆ ಸಹಿ ಮಾಡುವ ಮೂಲಕ, ನಾವು ನಿಮ್ಮ ಯಾವುದೇ ಕಾನೂನು ಹಕ್ಕುಗಳನ್ನು ಬಿಟ್ಟುಕೊಡುತ್ತಿಲ್ಲ.

ಪ್ರಶ್ನೆಗಳು: ಈ ಅಧ್ಯಯನಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ ಯಾವುದೇ ಪ್ರಶ್ನೆಗಳಿದ್ದಲ್ಲಿ, ನೀವು ಸಂಪರ್ಕಿಸಲು ಮುಕ್ತರಾಗಿದ್ದೀರಿ:

REG NO BQ0122002

ಸ್ನಾತಕೋತ್ತರ ಪದವಿ, ಮನೋವೈದ್ಯಶಾಸ್ತ್ರ ವಿಭಾಗ, ಜೆ.ಎನ್. ವೈದ್ಯಕೀಯ ಕಾಲೇಜು

ಕಾಹೆರ್, ಬೆಳಗಾವಿ- 590010

ಅಧ್ಯಯನದ ಸಮಯದಲ್ಲಿ ಅಥವಾ ಭವಿಷ್ಯದಲ್ಲಿ ಯಾವುದೇ ಪ್ರಶ್ನೆಗಳಿದ್ದಲ್ಲಿ ನೀವು ಈ ಕೆಳಗಿನವರನ್ನು ಸಂಪರ್ಕಿಸಬಹುದು-

ಡಾ. ಹರ್ಷ ಹೆಗ್ಡೆ,

ಅಧ್ಯಕ್ಷರು,

ಜವಾಹರಲಾಲ್ ನೆಹರು ವೈದ್ಯಕೀಯ ಕಾಲೇಜು

ಮಾನವ ಸಂಶೋಧನೆಗಾಗಿ ನೈತಿಕ ಸಮಿತಿ,

ಬೆಳಗಾವಿ- 590010

ಮಾಹಿತಿಪೂರ್ಣ ಸಂಮತಿ-

“ವಂಧ್ಯತ್ವ ಉಪಚಾರ ಘಟನೆ ಅಸಲೇಲ್ಯಾ ಜೊಡಪ್ಯಾಂಮಧ್ಯೆ ನೈರಾಶ್ಯಾತೀಲ ಲಿಂಗ ಫರಕ ಆಣಿ ತ್ಯಾಂಚಾ ಸಾಮನಾ ಕರಣೆ. ಏಕ ವರ್ಷಾ ಕ್ರಾಸ್-ಸೆಕ್ಷನಲ ಹಾಸ್ಪಿಟಲ-ಆಧಾರಿತ ವರ್ಣನಾತ್ಮಕ ಅಭ್ಯಾಸ” ಯಾ ಸಂಶೋಧನಾತ ಸಹಭಾಗೀ ಹೊಣ್ಯಾಸಾಠಿ ಸಂಮತಿ

ಪ್ರಾಚಾರ್ಯ ಅನ್ವೇಷಕ (PI): ನೋದಣಿ ಕ್ರಮಾಂಕ: BQ0122002

सहभागीचे नाव-

अभ्यासाचा परिचय आणि उद्देश- तुम्हाला REG.NO- BQ0122002 द्वारे आयोजित निरीक्षण अभ्यासात सहभागी होण्याची विनंती केली जात आहे. हे वंध्यत्व उपचार घेत असलेल्या जोडप्यांमध्ये नैराश्याचे प्रमाण आणि त्यांचा सामना कसा करावा याची तपासणी करण्यासाठी केएलई विद्यापीठ, बेळगाव, कर्नाटक येथील जवाहरलाल नेहरू मेडिकल कॉलेज येथे मानसोपचार विभागातील पदव्युत्तर विद्यार्थी आहेत.

प्रक्रियेचे स्पष्टीकरण: तुमच्याकडून लेखी माहितीपूर्ण संमती मिळाल्यानंतर, एक छोटी मुलाखत घेतली जाईल, त्यानंतर दोन प्रश्नावली वापरून मूल्यांकन केले जाईल जे मला नैराश्याची तपासणी करण्यात आणि रुग्णांच्या उपचारांच्या अनुपालनाबद्दल जाणून घेण्यास मदत करतील.

अभ्यासात सहभाग मागे घेणे: या अभ्यासात सहभाग ऐच्छिक आहे. नोंदणी झाल्यानंतर या अभ्यासात सहभागी व्हायचे की पुढे सहभागी व्हायचे हे ठरवण्यास तुम्ही स्वतंत्र असाल. जर तुम्ही तुमचा सहभाग मागे घेण्याचा निर्णय घेतला तर तुम्ही ते करण्यास मोकळे असाल. कृपया तुमचा निर्णय मुख्य अन्वेषकाला कळवा.

अभ्यासात सहभागी होण्याचे संभाव्य फायदे: अभ्यासात सहभागी होण्याचा तुम्हाला कोणताही फायदा होणार नाही. गोळा केलेला डेटा मोठ्या प्रमाणात लोकसंख्येला मदत करेल.

अभ्यासात सहभागी होण्याचे संभाव्य धोके: या संशोधनात सहभागी होण्याशी संबंधित कोणतेही धोके नाहीत. जर वैद्यकीय मदत आवश्यक असेल तर ती तुम्हाला मोफत दिली जाईल.

गोपनीयता आणि गोपनीयता: अभ्यासात सहभागी होण्यादरम्यान तुम्ही गोळा केलेला किंवा उघड केलेला सर्व डेटा पूर्णपणे गोपनीय ठेवला जाईल. तथापि, अभ्यासक्रमादरम्यान ओळख उघड करणे आवश्यक असल्यास, ते तुमच्या माहितीपूर्ण आणि लेखी संमतीनंतरच केले जाईल. तुम्ही संशोधन विषय आहात हे फक्त संशोधन पथकाचे सदस्यच जाणून घेऊ शकतात. तुमच्या लेखी परवानगीशिवाय तुमच्याबद्दलची

कोणतीही माहिती इतरांना उघड केली जाणार नाही, याशिवाय. तुमच्या हक्कांचे आणि कल्याणाचे रक्षण करण्यासाठी किंवा कायदाने आवश्यक असल्यास.

सहभागासाठी आर्थिक प्रोत्साहन: या अभ्यासाच्या उद्देशाने तुमच्यावर कोणताही अतिरिक्त खर्च केला जाणार नाही. हे पूर्णपणे संशोधनाच्या कल्पनेने केले जात आहे आणि अभ्यासाचा सर्व खर्च तपासकर्त्याने उचलला जाईल.

तपासणीचा खर्च लागू नाही

निकाल प्रकाशित करण्यासाठी अधिकृतता: अभ्यासाचे निकाल लेख प्रकाशित करण्यासाठी वापरले जाऊ शकतात. जेव्हा संशोधनाचे निकाल प्रकाशित केले जातात किंवा त्यावर चर्चा केली जाते, तेव्हा परिषदेत, तुमची ओळख उघड करणारी कोणतीही माहिती प्रदर्शित केली जाणार नाही. या अभ्यासासंदर्भात मिळालेली आणि तुमच्याशी ओळख पटवता येणारी कोणतीही माहिती गोपनीय ठेवली जाईल.

कायदेशीर हक्क: या संमती फॉर्मवर स्वाक्षरी करून, आम्ही तुमचे कोणतेही कायदेशीर अधिकार सोडत नाही.

प्रश्न: या अभ्यासासंदर्भात कोणतेही प्रश्न असल्यास, तुम्ही संपर्क साधू शकता:

REG NO BQ0122002

पदव्युत्तर पदवी, मानसोपचार विभाग, जे.एन. मेडिकल कॉलेज

काहेर, बेळगाव- ५९००१०

अभ्यासादरम्यान किंवा भविष्यात काही प्रश्न असल्यास तुम्ही खालील क्रमांकावर संपर्क साधू शकता-
डॉ. हर्षा हेगडे,

अध्यक्ष,

जवाहरलाल नेहरू मेडिकल कॉलेज

मानवी संशोधनासाठी नैतिक समिती,

बेळगाव- ५९००१०

सूचित सहमति-

शोध में भागीदारी के लिए सहमति “बांझपन उपचार से गुजर रहे जोड़ों के बीच अवसाद और मुकाबला करने में लिंग अंतर। एक वर्षीय क्रॉस-सेक्शनल अस्पताल आधारित वर्णनात्मक अध्ययन”

प्रमुख अन्वेषक (पीआई): पंजीकरण संख्या: BQ0122002

प्रतिभागी का नाम-

अध्ययन का परिचय और उद्देश्य- आपसे अनुरोध किया जा रहा है कि आप REG.NO- BQ0122002 द्वारा एक अवलोकन अध्ययन में भाग लें, जो जवाहरलाल नेहरू मेडिकल कॉलेज, केएलई विश्वविद्यालय, बेळगाव, कर्नाटक में मनोचिकित्सा विभाग में स्नातकोत्तर छात्र है, जिसका उद्देश्य बांझपन उपचार से गुजर रहे जोड़ों के बीच अवसाद और मुकाबला करने की व्यापकता की जांच करना है।

प्रक्रिया का विवरण: आपसे लिखित सूचित सहमति प्राप्त करने के बाद, एक संक्षिप्त साक्षात्कार आयोजित किया जाएगा, उसके बाद दो प्रश्नावली लागू करके मूल्यांकन किया जाएगा जो मुझे अवसाद की जांच करने

और रोगियों के उपचार अनुपालन के बारे में जानने में मदद करेगा। अध्ययन में भागीदारी से पीछे हटना: इस अध्ययन में भागीदारी स्वैच्छिक है। आप यह तय करने के लिए स्वतंत्र होंगे कि इस अध्ययन में भाग लेना है या नामांकन के बाद भाग लेना जारी रखना है। यदि आप अपनी भागीदारी वापस लेने का निर्णय लेते हैं, तो आप ऐसा करने के लिए स्वतंत्र होंगे। कृपया अपना निर्णय मुख्य अन्वेषक को बताएं।

अध्ययन में भाग लेने के संभावित लाभ: अध्ययन में भाग लेने से आपको कोई लाभ नहीं मिलेगा। एकत्रित डेटा से बड़े पैमाने पर लोगों को मदद मिलेगी। अध्ययन में भाग लेने से संभावित जोखिम: इस शोध में भाग लेने से कोई जोखिम नहीं जुड़ा है। यदि चिकित्सा सहायता की आवश्यकता है, तो यह आपको बिना किसी शुल्क के दी जाएगी। गोपनीयता और गोपनीयता: अध्ययन में भागीदारी के दौरान आपके द्वारा एकत्रित या प्रकट किया गया सभी डेटा पूरी तरह से गोपनीय रखा जाएगा। हालाँकि, यदि पाठ्यक्रम के दौरान पहचान का खुलासा करना आवश्यक हो जाता है, तो ऐसा आपकी सूचित और लिखित सहमति के बाद ही किया जाएगा। केवल शोध दल के सदस्य ही जान सकते हैं कि आप एक शोध विषय हैं। आपकी लिखित अनुमति के बिना आपके बारे में कोई भी जानकारी दूसरों को नहीं बताई जाएगी सिवाय: आपके अधिकारों और कल्याण की रक्षा के लिए आपात स्थिति में या कानून द्वारा आवश्यक होने पर।

भागीदारी के लिए वित्तीय प्रोत्साहन: इस अध्ययन के उद्देश्य के लिए आप पर कोई अतिरिक्त लागत नहीं डाली जाएगी। यह पूरी तरह से शोध के विचार से किया जा रहा है और अध्ययन की सभी लागत अन्वेषक द्वारा वहन की जाएगी।

जांच की लागत लागू नहीं है

परिणाम प्रकाशित करने के लिए प्राधिकरण: अध्ययन के परिणामों का उपयोग किसी लेख को प्रकाशित करने के लिए किया जा सकता है। जब शोध के परिणाम प्रकाशित होते हैं या किसी सम्मेलन में चर्चा की जाती है, तो ऐसी कोई जानकारी प्रदर्शित नहीं की जाएगी जिससे आपकी पहचान का खुलासा हो। इस अध्ययन के संबंध में प्राप्त की गई कोई भी जानकारी और जिससे आपकी पहचान की जा सके, गोपनीय रहेगी।

कानूनी अधिकार: इस सहमति फॉर्म पर हस्ताक्षर करके, हम आपके किसी भी कानूनी अधिकार का त्याग नहीं कर रहे हैं।

प्रश्न: इस अध्ययन के संबंध में किसी भी प्रश्न के मामले में, आप संपर्क करने के लिए स्वतंत्र हैं:

पंजीकरण संख्या BQ0122002

स्नातकोत्तर, मनोचिकित्सा विभाग, जे.एन. मेडिकल कॉलेज

काहेर, बेलगावी- 590010

अध्ययन के दौरान या भविष्य में किसी भी प्रश्न के मामले में आप निम्नलिखित से संपर्क कर सकते हैं-

डॉ. हर्षा हेगड़े,

अध्यक्ष,

जवाहरलाल नेहरू मेडिकल कॉलेज

मानव अनुसंधान के लिए नैतिक समिति,

बेलगावी- 590010

ಭಾಗವಹಿಸುವವರ ಹೆಸರು:

ಚಿಹ್ನೆ/ಹೆಬ್ಬರಳು ಮುದ್ರಣ:

ತನಿಖಾಧಿಕಾರಿಯ ಚಿಹ್ನೆ:

ಸಮ್ಮತಿ ಹೇಳಿಕೆ

ನಾನು ಅಧ್ಯಯನದಲ್ಲಿ ಭಾಗವಹಿಸಲು ಸ್ವಯಂಪ್ರೇರಿತ ನಿರ್ಧಾರವನ್ನು ತೆಗೆದುಕೊಳ್ಳುತ್ತಿದ್ದೇನೆ, 'ಬಂಜೆತನ ಚಿಕಿತ್ಸೆ- ಅಡ್ಡ-ವಿಭಾಗೀಯ ವಿವರಣಾತ್ಮಕ ಅಧ್ಯಯನದ ಮೂಲಕ ಹೋಗುವ ದಂಪತಿಗಳಲ್ಲಿ ಖಿನ್ನತೆ ಮತ್ತು ನಿಭಾಯಿಸುವಲ್ಲಿ ಲಿಂಗ ವ್ಯತ್ಯಾಸಗಳು'. ಕೆಳಗಿನ ನನ್ನ ಸಹಿ ನಾನು ಭಾಗವಹಿಸಲು ನಿರ್ಧರಿಸಿದ್ದೇನೆ ಮತ್ತು ಮೇಲೆ ಒದಗಿಸಲಾದ ಮಾಹಿತಿಯನ್ನು ನಾನು ಓದಿದ್ದೇನೆ ಅಥವಾ ಮೇಲೆ ಒದಗಿಸಲಾದ ಮಾಹಿತಿಯನ್ನು ನನಗೆ ಚೆನ್ನಾಗಿ ಅರ್ಥವಾಗುವ ಭಾಷೆಯಲ್ಲಿ ಓದಲಾಗಿದೆ ಎಂದು ಸೂಚಿಸುತ್ತದೆ. ನನಗೆ ಪ್ರಶ್ನೆಗಳನ್ನು ಕೇಳಲು ಅವಕಾಶ ನೀಡಲಾಯಿತು ಮತ್ತು ಅವುಗಳಿಗೆ ತೃಪ್ತಿಕರವಾಗಿ ಉತ್ತರಿಸಲಾಗಿದೆ.

ಭಾಗವಹಿಸುವವರ ಹೆಸರು:

ಭಾಗವಹಿಸುವವರ ಸಹಿ ಅಥವಾ ಎಡ-ಹೆಬ್ಬೆರಳಿನ ಗುರುತುಗಳು

ಸಾಕ್ಷಿಯವರ ಹೆಸರು:

ಸಾಕ್ಷಿಯವರ ಸಹಿ ಅಥವಾ ಎಡ ಹೆಬ್ಬೆರಳಿನ ಗುರುತು:

ತನಿಖಾಧಿಕಾರಿಯ ಹೆಸರು:

ತನಿಖಾಧಿಕಾರಿಯ ಸಹಿ:

ಸಹಭಾಗೀಕೆ ನಾವ:

चिन्ह/अंगठ्याचा ठसा:

तपासकर्त्याचे ठसा:

संमती विधान

मी 'नैराश्यात लिंग फरक आणि वंध्यत्व उपचारांमधून जाणाऱ्या जोडप्यांमध्ये सामना करणे - एक क्रॉस-सेक्शनल वर्णनात्मक अभ्यास' या अभ्यासात सहभागी होण्याचा स्वेच्छेने निर्णय घेत आहे. खाली दिलेली माझी स्वाक्षरी दर्शवते की मी सहभागी होण्याचा निर्णय घेतला आहे आणि मी वर दिलेली माहिती वाचली आहे किंवा वर दिलेली माहिती मला चांगल्या प्रकारे समजणाऱ्या भाषेत वाचून दाखवण्यात आली आहे. मला प्रश्न विचारण्याची संधी देण्यात आली आणि त्यांची समाधानकारक उत्तरे देण्यात आली.

सहभागीचे नाव:

सहभागीची स्वाक्षरी किंवा डाव्या अंगठ्याचे ठसे

साक्षीदाराचे नाव:

साक्षीदाराची स्वाक्षरी किंवा डाव्या अंगठ्याचा ठसा:

तपासकर्त्याचे नाव:

तपासकर्त्याची स्वाक्षरी:

प्रतिभागी का नाम:

हस्ताक्षर/अंगूठे का निशान:

अन्वेषक का हस्ताक्षर:

सहमति कथन

मैं अध्ययन में भाग लेने के लिए स्वैच्छिक निर्णय ले रहा हूँ, 'बांझपन उपचार से गुजर रहे जोड़ों के बीच अवसाद और सामना करने में लिंग अंतर- एक क्रॉस-सेक्शनल वर्णनात्मक अध्ययन'। नीचे मेरा हस्ताक्षर दर्शाता है कि मैंने भाग लेने का फैसला किया है और मैंने ऊपर दी गई जानकारी को पढ़ लिया है या ऊपर दी गई जानकारी मुझे उस भाषा में पढ़कर सुनाई गई है जिसे मैं सबसे अच्छी तरह समझता हूँ। मुझे प्रश्न पूछने का अवसर दिया गया, और उनका संतोषजनक उत्तर दिया गया।

प्रतिभागी का नाम:

प्रतिभागी के हस्ताक्षर या बाएँ अंगूठे का निशान

गवाह का नाम:

गवाह के हस्ताक्षर या बाएँ अंगूठे का निशान:

अन्वेषक का नाम:

अन्वेषक के हस्ताक्षर:

ANNEXURE II: PROFORMA

DATA COLLECTION PROFORMA-

‘GENDER DIFFERENCES IN DEPRESSION AND COPING AMONG COUPLES GOING THROUGH INFERTILITY TREATMENT’

-STUDY ID NUMBER:

-DATE OF ASSESSMENT:

SECTION A - SOCIO-DEMOGRAPHIC DETAILS OF PARTICIPANTS-

- AGE – _____ YEARS
- GENDER- MALE/ FEMALE
- OCCUPATION- UNSKILLED/ SEMI-SKILLED/ SKILLED

- SOCIO-ECONOMIC STATUS-

LOWER/ LOWER-MIDDLE/ MIDDLE/ UPPER SOCIO-ECONOMIC CLASS

- RELIGION- HINDU/ MUSLIM/ CHRISTIAN/ OTHERS

SECTION B – CLINICAL DETAILS

- PAST HISTORY OF PSYCHIATRIC ILLNESS- YES/NO
- FAMILY HISTORY OF PSYCHIATRIC ILLNESS- YES/NO
- PERSONAL HISTORY (SUBSTANCE USE) - TOBACCO CHEWING/ TOBACCO SMOKING/ ALCOHOL USE/ OTHERS

-IF YES, SPECIFY-

-SPECIFY TOTAL DURATION OF SUBSTANCE USE-

-SPECIFY FREQUENCY AND QUANTITY OF USE OF SUBSTANCE-

- DIAGNOSED WITH INFERTILITY PROBLEMS- YES/NO
- DURATION OF TREATMENT FOR INFERTILITY PROBLEMS- _____ YEARS

SECTION C- DEPRESSION ASSESSMENT

PATIENT HEALTH QUESTIONNAIRE-9 (PHQ-9)

DEPRESSION STATUS- PRESENT/ NOT PRESENT

DEPRESSION SEVERITY-

1. NONE/ MINIMAL DEPRESSION (1-4)
2. MILD DEPRESSION (5-9)

3. MODERATE DEPRESSION (10-14)
4. MODERATELY SEVERE DEPRESSION (15-19)
5. SEVERE DEPRESSION (20-27)

SECTION-D – COPING SKILLS ASSESSMENT

BRIEF COPE SCALE (FULL SCALE TO BE ADMINISTERED-28 ITEMS)

ADAPTIVE (POSITIVE) COPING SCORE _____

TYPE OF POSITIVE COPING-

- ACTIVE COPING
- PLANNING
- POSITIVE REFRAMING
- ACCEPTANCE
- USE OF EMOTIONAL SUPPORT
- USE OF INSTRUMENTAL SUPPORT
- HUMOR

AVOIDANT (NEGATIVE) COPING SCORE _____

TYPE OF NEGATIVE COPING-

- SELF-DISTRACTION
- DENIAL
- SUBSTANCE USE
- BEHAVIOURAL DISENGAGEMENT
- VENTING
- SELF-BLAME

ANNEXURE III- TOOLS
PATIENT HEALTH QUESTIONNAIRE-9 (PHQ-9)

Instructions: Over the last 2 weeks, how often have you been bothered by any of the following problems?

No. Problem	Not at all (0)	Several days (1)	More than the (2)	half days (3)	Nearly every day
1 Little interest or pleasure in doing things	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Feeling down, depressed, or hopeless	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Trouble falling or staying asleep, or sleeping too much	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Feeling tired or having little energy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Poor appetite or overeating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Feeling bad about yourself — or that you are a failure or have let yourself or your family down	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Trouble concentrating on things, such as reading the newspaper or watching television	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 Moving or speaking so slowly that other people could have noticed? Or the opposite — being so fidgety or restless that you have been moving around a lot more than usual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

No. Problem	Not at all (0)	Several days (1)	More than the (2)	half days (3)	Nearly every day
9 Thoughts that you would be better off dead or of hurting yourself in some way	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Total Score: _____ Depression Severity:

- None/Minimal depression (1-4)
- Mild depression (5-9)
- Moderate depression (10-14)
- Moderately severe depression (15-19)
- Severe depression (20-27)

SCALE-2 BRIEF COPE SCALE BY CARVER, 1997

Response Scale: 1 = I haven't been doing this at all 2 = I've been doing this a little bit 3 = I've been doing this a medium amount 4 = I've been doing this a lot

No. Item	1 2 3 4
1 I've been turning to work or other activities to take my mind off things	□ □ □ □
2 I've been concentrating my efforts on doing something about the situation I'm in	□ □ □ □
3 I've been saying to myself "this isn't real"	□ □ □ □
4 I've been using alcohol or other drugs to make myself feel better	□ □ □ □
5 I've been getting emotional support from others	□ □ □ □
6 I've been giving up trying to deal with it	□ □ □ □
7 I've been taking action to try to make the situation better	□ □ □ □
8 I've been refusing to believe that it has happened	□ □ □ □
9 I've been saying things to let my unpleasant feelings escape	□ □ □ □
10 I've been getting help and advice from other people	□ □ □ □
11 I've been using alcohol or other drugs to help me get through it	□ □ □ □

No.	Item	1	2	3	4
12	I've been trying to see it in a different light, to make it seem more positive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	I've been criticizing myself	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	I've been trying to come up with a strategy about what to do	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	I've been getting comfort and understanding from someone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16	I've been giving up the attempt to cope	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17	I've been looking for something good in what is happening	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18	I've been making jokes about it	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19	I've been doing something to think about it less, such as watching TV, reading, daydreaming, sleeping, or shopping	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20	I've been accepting the reality of the fact that it has happened	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21	I've been expressing my negative feelings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22	I've been trying to find comfort in my religion or spiritual beliefs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23	I've been trying to get advice or help from other people about what to do	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24	I've been learning to live with it	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25	I've been thinking hard about what steps to take	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26	I've been blaming myself for things that happened	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27	I've been praying or meditating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28	I've been making fun of the situation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Sr. no	Age/sex	socioeconomic class	occupation	religion	past history	family history	personal history	total duration of infertility treatment	Primary intervention in ob/g dept	if psychiatric intervention sought previously	plq-9 score	depression severity	brief cope strategy	type of coping- positive or negative	primary infertility	secondary infertility	low mood	anhedonia	easy fatigability		appetite disturbances	sleep disturbances		poor concentration	death wishes	guilt feelings	anorexia	
1	31/F	UPPER MIDDLE CLASS	TEACHER	CHRISTIAN	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	6 YEARS	REFERRED TO ARC	NO	25	severe depression	self blame	negative	YES	-	yes	yes	yes		yes	yes		yes	yes	yes	yes	no
2	22/F	LOWER MIDDLE CLASS	HOME MAKER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	1 YEAR	REFERRED TO ARC AND LIFESTYLE MODIFICATIONS	NO	2	-	-	-	YES	-	no	no	no		no	no		no	no	no	no	no
3	36/F	UPPER MIDDLE CLASS	LECTURER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	4 YEARS	USG ABD+PELVIS	NO	3	-	-	-	-	YES	no	no	no		no	no		no	no	no	no	no
4	33/F	LOWER MIDDLE CLASS	TAILOR	HINDU	NIL SIGNIFICANT	H/O DEPRESSION IN MOTHER	NIL SIGNIFICANT	7 YEARS	USG ABD+PELVIS	NO	13	moderate depression	acceptance	positive	-	YES	yes	yes	yes		no	no		no	no	no	no	no
5	24/F	LOWER MIDDLE CLASS	HOME MAKER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	1 YEAR	REFERRED TO ARC AND LIFESTYLE MODIFICATIONS	NO	0	-	-	-	YES	-	no	no	no		no	no		no	no	no	no	no
6	28/F	LOWER CLASS	FARMER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	6 YEARS	ORAL ANTIBIOTICS STARTED	YES	23	severe depression	disengagement	negative	YES	-	yes	yes	yes		yes	yes		yes	yes	yes	yes	no
7	34/F	LOWER MIDDLE CLASS	HOME MAKER	HINDU	NIL SIGNIFIANT	H/S/O ? BPAD IN MATERNAL AUNT	NIL SIGNIFICANT	4 YEARS	USG ABD+PELVIS	NO	3	-	-	-	-	YES	no	no	no		no	no		no	no	no	no	no
8	31/F	LOWER MIDDLE CLASS	AGRICULTURE	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	5 YEARS	REFERRED TO ARC	NO	6	-	venting	positive	-	YES	yes	no	no		no	yes		no	no	no	no	no
9	28/F	LOWER MIDDLE CLASS	HOME MAKER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	2 YEARS	USG ABD+PELVIS	NO	2	-	-	-	-	YES	no	no	no		no	no		no	no	no	no	no
10	22/F	LOWER CLASS	FARMER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	3 YEARS	REFERRED TO ARC	NO	17	moderate depression	self blame	negative	YES	-	yes	yes	yes		yes	no		no	no	yes	no	no
11	35/F	UPPER MIDDLE CLASS	PRIMARY SCHOOL TEACHER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	10 YEARS	USG ABD+PELVIS	NO	26	severe depression	self blame	negative	YES	-	yes	yes	yes		yes	yes		yes	yes	yes	yes	no
12	23/F	LOWER MIDDLE CLASS	HOME MAKER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	2 YEARS	REFERRED TO ARC	NO	5	mild depression	avoidance	negative	YES	-	no	no	no		no	no		no	no	no	no	no
13	30/F	LOWER CLASS	FARMER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	5 YEARS	REFERRED TO ARC	NO	2	-	-	-	-	YES	no	no	no		no	no		no	no	no	no	no
14	27/F	LOWER MIDDLE CLASS	HOME MAKER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	4 YEARS	USG ABD+PELVIS	NO	4	-	-	-	-	YES	no	no	no		no	no		no	no	no	no	no
15	26/F	LOWER CLASS	FARMER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	5 YEARS	REFERRED TO ARC	YES	14	moderate depression	avoidance	negative	YES	-	yes	yes	yes		no	yes		no	no	no	no	no
16	25/F	LOWER MIDDLE CLASS	HOME MAKER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	3 YEARS	REFERRED TO ARC	NO	12	moderate depression	use of emotional support	positive	YES	-	yes	yes	no		yes	yes		yes	no	no	no	no
17	29/F	LOWER CLASS	FARMER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	7 YEARS	USG DONE AND ORAL ANTIBIOTICS STARTED.	YES	25	severe depression	self blame	negative	YES	-	yes	yes	yes		yes	yes		yes	yes	yes	yes	no
18	26/F	LOWER MIDDLE CLASS	HOME MAKER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	2 YEARS	USG ABD+PELVIS	NO	1	-	-	-	-	YES	no	no	no		no	no		no	no	no	no	no
19	30/F	UPPER MIDDLE CLASS	HOME MAKER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	5 YEARS	REFERRED TO ARC	NO	13	moderate depression	use of emotional support	positive	YES	-	yes	no	no		yes	yes		yes	no	no	no	no
20	20/F	LOWER MIDDLE CLASS	HOME MAKER	MUSLIM	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	2 YEARS	REFERRED TO ARC AND LIFESTYLE MODIFICATIONS	NO	7	mild depression	venting	positive	YES	-	yes	no	no		yes	yes		no	no	no	yes	no
21	23/F	LOWER MIDDLE CLASS	HOME MAKER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	1 YEAR	REFERRED TO ARC	NO	2	-	-	-	YES	-	no	no	no		no	no		no	no	no	no	no
22	28/F	LOWER CLASS	HOME MAKER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	5 YEARS	USG ABD+PELVIS	NO	12	moderate depression	denial	negative	-	YES	yes	no	no		yes	yes		no	no	yes	yes	no
23	26/F	LOWER MIDDLE CLASS	HOME MAKER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	3 YEARS	USG ABD+PELVIS	NO	1	-	-	-	-	YES	no	no	no		no	no		no	no	no	no	no
24	30/F	UPPER MIDDLE CLASS	FAMILY BUSINESS	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	4 YEARS	REFERRED TO ARC	NO	13	moderate depression	disengagement	negative	YES	-	yes	no	no		no	no		no	no	no	no	no
25	20/F	LOWER MIDDLE CLASS	HOME MAKER	MUSLIM	NIL SIGNIFICANT	H/S/O DEPRESSION IN PATERNAL AUNT	NIL SIGNIFICANT	2 YEARS	REFERRED TO ARC	NO	6	mild depression	venting	positive	YES	-	no	no	no		no	no		no	no	no	no	no
26	21/F	LOWER MIDDLE CLASS	HOME MAKER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	2 YEARS	REFERRED TO ARC AND LIFESTYLE MODIFICATIONS	NO	7	mild depression	avoidance	negative	YES	-	yes	no	no		no	no		no	no	no	no	no
27	27/F	LOWER MIDDLE CLASS	TEACHER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	3 YEARS	REFERRED TO ARC	NO	10	moderate depression	acceptance	positive	YES	-	yes	no	no		yes	yes		no	no	no	no	no
28	32/F	UPPER MIDDLE CLASS	HOME MAKER	MUSLIM	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	4 YEARS	USG ABD+PELVIS	YES	2	-	-	-	-	YES	no	no	no		no	no		no	no	no	no	no
29	32/F	UPPER MIDDLE CLASS	HOME MAKER	MUSLIM	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	6 YEARS	USG ABD+PELVIS	NO	6	mild depression	avoidance	negative	-	YES	no	no	no		no	no		no	no	no	no	no
30	28/F	LOWER MIDDLE CLASS	HOME MAKER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	4 YEARS	REFERRED TO ARC	NO	14	moderate depression	self blame	negative	YES	-	yes	yes	no		yes	yes		no	no	yes	no	no
31	31/F	LOWER MIDDLE CLASS	HOME MAKER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	5 YEARS	USG ABD+PELVIS	NO	7	mild depression	use of emotional support	positive	-	YES	yes	no	no		no	yes		no	no	no	no	yes
32	25/F	LOWER MIDDLE CLASS	HOME MAKER	MUSLIM	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	3 YEARS	REFERRED TO ARC	YES	13	moderate depression	acceptance	positive	YES	-	yes	yes	yes		no	no		no	no	no	no	no
33	24/F	LOWER MIDDLE CLASS	WORKS IN RETAIL STORE	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	2 YEARS	REFERRED TO ARC	NO	2	-	-	-	YES	-	no	no	no		no	no		no	no	no	no	no
34	29/F	UPPER MIDDLE CLASS	MARKETING COMPANY	CHRISTIAN	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	2 YEARS	REFERRED TO ARC	NO	1	-	-	-	YES	-	no	no	no		no	no		no	no	no	no	no

35	36/F	LOWER MIDDLE CLASS	HOME MAKER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	6 YEARS	USG ABD+PELVIS	NO	12	moderate depression	self blame	negative	-	YES	yes	yes	no	no	no	no	no	no	no
36	22/F	LOWER MIDDLE CLASS	HOME MAKER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	2 YEARS	REFERRED TO ARC	NO	0	-	-	-	YES	-	no	no	no	no	no	no	no	no	no
37	31/F	LOWER MIDDLE CLASS	HOME MAKER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	5 YEARS	USG ABD+PELVIS	NO	12	moderate depression	disengagement	negative	-	YES	yes	no	no	no	yes	yes	no	no	no
38	29/F	LOWER MIDDLE CLASS	HOME MAKER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	3 YEARS	REFERRED TO ARC AND LIFESTYLE MODIFICATIONS	NO	7	mild depression	venting	positive	YES	-	yes	no	no	no	no	no	no	no	yes
39	32/F	UPPER MIDDLE CLASS	LECTURER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	3 YEARS	REFERRED TO ARC	NO	3	-	-	-	YES	-	no	no	no	no	no	no	no	no	no
40	31/F	LOWER MIDDLE CLASS	HOME MAKER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	6 YEARS	REFERRED TO ARC	YES	23	severe depression	self blame	negative	YES	-	yes	yes	yes	yes	yes	yes	yes	yes	no
41	23/F	LOWER MIDDLE CLASS	HOME MAKER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	2 YEARS	REFERRED TO ARC	NO	3	-	-	-	YES	-	no	no	no	no	no	no	no	no	no
42	28/F	LOWER MIDDLE CLASS	HOME MAKER	HINDU	NIL SIGNIFICANT	H/S/O BPAD IN GRANDFATHER	NIL SIGNIFICANT	2 YEARS	REFERRED TO ARC AND LIFESTYLE MODIFICATIONS	NO	8	mild depression	self distraction	positive	YES	-	yes	no	no	no	no	yes	no	no	no
43	23/F	LOWER MIDDLE CLASS	HOME MAKER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	3 YEARS	REFERRED TO ARC AND LIFESTYLE MODIFICATIONS	NO	13	moderate depression	use of emotional support	positive	YES	-	yes	yes	yes	yes	no	no	no	no	no
44	32/F	LOWER MIDDLE CLASS	PHARMACIST	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	7 YEARS	REFERRED TO ARC	YES	23	severe depression	self harm	negative	YES	-	yes	yes	yes	yes	no	no	yes	yes	yes
45	24/F	LOWER MIDDLE CLASS	HOME MAKER	MUSLIM	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	3 YEARS	REFERRED TO ARC	YES	3	-	-	-	YES	-	no	no	no	no	no	no	no	no	no
46	26/F	LOWER CLASS	FARMER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	5 YEARS	USG ABD+PELVIS AND ORAL ANTIBIOTICS STARTED	NO	17	moderately severe depression	self blame	negative	YES	-	yes	yes	no	no	no	no	no	no	no
47	25/F	LOWER MIDDLE CLASS	HOME MAKER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	3 YEARS	ORAL ANTIBIOTICS STARTED	NO	5	mild depression	self blame	negative	YES	-	no	no	no	no	no	no	no	no	no
48	30/F	LOWER MIDDLE CLASS	WORKS AT GROCERY STORE	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	6 YEARS	USG ABD+PELVIS	NO	14	moderate depression	planning	positive	-	YES	yes	no	yes	yes	yes	yes	no	no	yes
49	35/F	UPPER MIDDLE CLASS	TEACHER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	10 YEARS	REFERRED TO ARC	YES	21	severe depression	self blame	negative	YES	-	yes	yes	yes	yes	yes	yes	no	yes	yes
50	29/F	LOWER MIDDLE CLASS	HOME MAKER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	5 YEARS	REFERRED TO ARC	NO	13	moderate depression	disengagement	negative	YES	-	yes	yes	yes	yes	no	no	no	no	no
51	34/F	LOWER CLASS	FARMER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	7 YEARS	TO BE POSTED FOR MYOMECTOMY	YES	7	mild depression	self distraction	positive	-	YES	no	no	no	no	yes	yes	no	no	no
52	30/F	LOWER MIDDLE CLASS	HOME MAKER	MUSLIM	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	6 YEARS	REFERRED TO ARC	YES	26	severe depression	self harm	negative	YES	-	yes	yes	yes	yes	yes	yes	yes	yes	yes
53	37/F	LOWER MIDDLE CLASS	HOME MAKER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	9 YEARS	USG ABD+PELVIS	YES	24	severe depression	use of instrumental support	positive	-	YES	yes	yes	yes	yes	yes	yes	yes	no	no
54	25/F	LOWER MIDDLE CLASS	HOME MAKER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	3 YEARS	USG ABD+PELVIS	NO	2	-	-	-	YES	-	no	no	no	no	no	no	no	no	no
55	22/F	LOWER MIDDLE CLASS	HOME MAKER	MUSLIM	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	2 YEARS	REFERRED TO ARC AND LIFESTYLE MODIFICATIONS	NO	3	-	-	-	YES	-	no	no	no	no	no	no	no	no	no
56	28/F	LOWER MIDDLE CLASS	HOME MAKER	MUSLIM	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	5 YEARS	USG ABD+PELVIS	NO	18	moderately severe depression	self blame	negative	YES	-	yes	yes	yes	yes	yes	yes	yes	no	no
57	21/F	LOWER MIDDLE CLASS	HOME MAKER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	2 YEARS	REFERRED TO ARC AND LIFESTYLE MODIFICATIONS	NO	2	-	-	-	YES	-	no	no	no	no	no	no	no	no	no
58	33/F	UPPER MIDDLE CLASS	LECTURER	CHRISTIAN	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	8 YEARS	USG ABD+PELVIS	YES	5	mild depression	venting	positive	-	YES	no	no	no	no	no	no	no	no	no
59	30/F	LOWER MIDDLE CLASS	HOME MAKER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	5 YEARS	USG ABD+PELVIS	NO	2	-	-	-	YES	-	no	no	no	no	no	no	no	no	no
60	25/F	LOWER MIDDLE CLASS	HOME MAKER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	4 YEARS	USG ABD+PELVIS	NO	14	moderate depression	disengagement	negative	YES	-	yes	yes	yes	yes	no	no	no	no	no
61	32/F	LOWER MIDDLE CLASS	HOME MAKER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	6 YEARS	REFERRED TO ARC AND LIFESTYLE MODIFICATIONS	NO	24	severe depression	denial	negative	YES	-	yes	yes	yes	yes	yes	yes	no	no	yes
62	27/F	LOWER MIDDLE CLASS	HOME MAKER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	3 YEARS	USG ABD+PELVIS	NO	3	-	-	-	YES	-	no	no	no	no	no	no	no	no	no
63	22/F	LOWER MIDDLE CLASS	PHARMACIST	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	2 YEARS	REFERRED TO ARC AND LIFESTYLE MODIFICATIONS	NO	1	-	-	-	YES	-	no	no	no	no	no	no	no	no	no
64	30/F	LOWER MIDDLE CLASS	HOME MAKER	MUSLIM	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	5 YEARS	USG ABD+PELVIS	NO	2	-	-	-	YES	-	no	no	no	no	no	no	no	no	no
65	35/F	LOWER MIDDLE CLASS	TEACHER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	8 YEARS	TO BE POSTED FOR MYOMECTOMY	YES	7	mild depression	venting	positive	-	YES	yes	no	no	no	no	no	no	no	no
66	24/F	LOWER MIDDLE CLASS	HOME MAKER	HINDU	NIL SIGNIFICANT	H/S/O DEPRESSION IN FATHER	NIL SIGNIFICANT	2 YEARS	USG ABD+PELVIS	NO	2	-	-	-	YES	-	no	no	no	no	no	no	no	no	no
67	29/F	LOWER CLASS	COOK	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	5 YEARS	USG ABD+PELVIS	NO	12	moderate depression	denial	negative	YES	-	yes	no	yes	yes	yes	yes	no	no	no
68	26/F	LOWER MIDDLE CLASS	FARMER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	3 YEARS	USG ABD+PELVIS	NO	6	mild depression	use of emotional support	positive	YES	-	yes	no	no	no	no	yes	no	no	no
69	24/F	LOWER MIDDLE CLASS	TAILOR	MUSLIM	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	6 YEARS	USG ABD+PELVIS	YES	27	severe depression	denial	negative	YES	-	yes	yes	yes	yes	yes	yes	yes	yes	yes
70	30/F	LOWER MIDDLE CLASS	FARMER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	4 YEARS	REFERRED TO ARC	NO	2	-	-	-	YES	-	no	no	no	no	no	yes	no	no	no
71	26/F	LOWER CLASS	HOME MAKER	MUSLIM	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	2 YEARS	USG ABD+PELVIS	NO	1	-	-	-	YES	-	no	no	no	no	no	no	no	no	no
72	32/F	UPPER MIDDLE CLASS	BUSINESS WOMAN	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	7 YEARS	REFERRED TO ARC	NO	5	mild depression	use of emotional support	positive	-	YES	yes	no	no	no	no	yes	no	no	no
73	29/F	LOWER MIDDLE CLASS	FARMER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	4 YEARS	USG ABD+PELVIS	NO	0	-	-	-	YES	-	no	no	no	no	no	no	no	no	no
74	33/F	LOWER MIDDLE CLASS	HOME MAKER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	8 YEARS	REFERRED TO ARC	NO	5	mild depression	venting	positive	-	YES	yes	no	no	no	no	no	no	no	no

113	27/F	LOWER MIDDLE CLASS	FARMER	HINDU	NIL SIGNIFICANT	DEPRESSION IN MOTHER	NIL SIGNIFICANT	3 YEARS	REFERRED TO ARC	NO	1	-	-	-	YES	-	no	no	no		no	no		no	no	no	no
114	29/F	LOWER MIDDLE CLASS	FARMER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	3 YEARS	USG ABD+PELVIS	NO	4	-	-	-	YES	-	yes	no	no		no	yes		no	no	no	no
115	31/F	LOWER MIDDLE CLASS	FARMER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	6 YEARS	REFERRED TO ARC	NO	10	moderate depression	avoidance	negative	YES	-	yes	yes	yes		no	yes		no	no	no	no
116	35/F	MIDDLE SOCIOECONOMIC CLASS	TEACHER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	6 YEARS	REFERRED TO ARC	NO	13	moderate depression	use of emotional support	positive	-	YES	yes	no	no		yes	yes		no	no	no	no
117	34/F	LOWER MIDDLE CLASS	FARMER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	8 YEARS	REFERRED TO ARC	YES	27	severe depression	self harm and disengagement	negative	YES	-	yes	yes	yes		yes	yes		yes	yes	yes	yes
118	29/F	LOWER MIDDLE CLASS	HOME MAKER	MUSLIM	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	4 YEARS	USG ABD+PELVIS	NO	5	mild depression	use of emotional support	positive	YES	-	yes	no	no		no	yes		no	no	no	no
119	32/F	LOWER MIDDLE CLASS	FARMER	HINDU	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	4 YEARS	USG ABD+PELVIS	NO	2	-	-	-	-	YES	no	no	no		no	no		no	no	no	no
120	33/F	MIDDLE SOCIOECONOMIC CLASS	HIGH SCHOOL TEACHER	CHRISTIAN	NIL SIGNIFICANT	??DEPRESSION IN GRANDMOTHER	NIL SIGNIFICANT	7 YEARS	REFERRED TO ARC	YES	27	severe depression	self blame	negative	YES	-	yes	yes	yes		yes	yes		yes	yes	yes	yes

Sl. No	Age	socioeconomic class	religion	education	occupation	past history	family history	personal history	If psychiatric intervention sought	total duration of infertility treatment	phq9 scoring	depression severity	life coping strategy	type of coping: positive or negative	low mood	anhedonia	easy fatigability	anxiety	appetite disturbances	sleep disturbances	poor concentration	death wishes	guilt feelings	anorexia
1	32	UPPER MIDDLE CLASS	CHRISTIAN	M.COM	FAMILY BUSINESS	NIL SIGNIFICANT	NIL SIGNIFICANT	OCCASIONAL SMOKING	NO	6 YEARS	6	MILD DEPRESSION	ACCEPTANCE AND PLANNING	POSITIVE	yes	no	no	no	no	yes	no	no	no	no
2	36	LOWER MIDDLE CLASS	HINDU	B.A	OWNS GROCERY STORE	NIL SIGNIFICANT	NIL SIGNIFICANT	TOBACCO CHEWING	NO	1 YEAR	5	MILD DEPRESSION	USE OF INSTRUMENTAL SUPPORT	POSITIVE	yes	no	no	no	no	no	no	no	no	no
3	27	UPPER MIDDLE CLASS	HINDU	ENGINEERING	LECTURER	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	NO	4 YEARS	2	-	-	-	no	no	no	no	no	no	no	no	no	no
4	40	LOWER MIDDLE CLASS	HINDU	12TH STD	TAILOR	NIL SIGNIFICANT	NIL SIGNIFICANT	OCCASIONAL TOBACCO CHEWING	NO	7 YEARS	1	-	-	-	no	no	no	no	no	no	no	no	no	no
5	35	LOWER MIDDLE CLASS	HINDU	8TH STD	AGRICULTURE	NIL SIGNIFICANT	NIL SIGNIFICANT	TOBACCO CHEWING+	NO	1 YEAR	8	MILD DEPRESSION	ACCEPTANCE	POSITIVE	yes	no	no	no	yes	yes	no	no	no	no
6	36	LOWER CLASS	HINDU	8TH STD	FARMER	NIL SIGNIFICANT	NIL SIGNIFICANT	TOBACCO CHEWING +	NO	6 YEARS	4	-	-	-	yes	no	no	no	no	no	no	no	no	no
7	29	LOWER MIDDLE CLASS	HINDU	ITI	AGRICULTURE	NIL SIGNIFICANT	NIL SIGNIFICANT	TOBACCO CHEWING	NO	4 YEARS	3	-	-	-	no	no	no	no	no	no	no	no	no	no
8	35	LOWER MIDDLE CLASS	HINDU	ITI	AGRICULTURE	NIL SIGNIFICANT	NIL SIGNIFICANT	B.D SMOKING	NO	5 YEARS	8	MILD DEPRESSION	POSITIVE REFRAMING	POSITIVE	yes	no	yes	no	yes	no	no	no	no	no
9	34	LOWER MIDDLE CLASS	HINDU	10TH STD	AGRICULTURE	NIL SIGNIFICANT	NIL SIGNIFICANT	TOBACCO CHEWING	NO	2 YEARS	3	-	-	-	no	no	no	no	no	no	no	no	no	no
10	35	LOWER CLASS	HINDU	7TH STD	FARMER	NIL SIGNIFICANT	NIL SIGNIFICANT	TOBACCO CHEWING	NO	3 YEARS	1	-	-	-	no	no	no	no	no	no	no	no	no	no
11	36	UPPER MIDDLE CLASS	HINDU	ENGINEER	WORKS FOR PVT COMPANY	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	NO	10 YEARS	12	MODERATE DEPRESSION	PLANNING	POSITIVE	yes	yes	yes	yes	no	no	no	no	no	no
12	31	LOWER MIDDLE CLASS	HINDU	B.SC	TEACHER	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	NO	2 YEARS	2	-	-	-	no	no	no	no	no	no	no	no	no	no
13	28	LOWER CLASS	HINDU	11TH STD	FARMER	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	NO	5 YEARS	9	MILD DEPRESSION	SUBSTANCE USE	NEGATIVE	yes	yes	yes	no	yes	no	no	no	no	no
14	32	LOWER MIDDLE CLASS	HINDU	12TH STD	FARMER	OPERATED FOR APPENDICITIS 14 YEARS AGO	NIL SIGNIFICANT	NIL SIGNIFICANT	NO	4 YEARS	5	MILD DEPRESSION	USE OF INSTRUMENTAL SUPPORT	POSITIVE	yes	no	no	no	no	no	no	no	no	no
15	30	LOWER CLASS	HINDU	8TH STD	FARMER	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	NO	5 YEARS	8	MILD DEPRESSION	SUBSTANCE USE	NEGATIVE	yes	no	no	no	yes	no	no	no	no	no
16	27	LOWER MIDDLE CLASS	HINDU	B.COM	WORKS FOR PVT COMPANY	NIL SIGNIFICANT	NIL SIGNIFICANT	OCCASIONAL CIGARETTE SMOKING	NO	3 YEARS	1	-	-	-	no	no	no	no	no	no	no	no	no	no
17	32	LOWER CLASS	HINDU	10TH STD	FARMER	NIL SIGNIFICANT	NIL SIGNIFICANT	TOBACCO CHEWING+	NO	7 YEARS	14	MODERATE DEPRESSION	SELF DISTRACTION AND PLANNING	POSITIVE	yes	yes	yes	yes	yes	no	no	no	no	no
18	31	LOWER MIDDLE CLASS	HINDU	B.A	WORKS AT A RETAIL STORE	NIL SIGNIFICANT	NIL SIGNIFICANT	OCCASIONAL CIGARETTE SMOKING	NO	2 YEARS	0	-	-	-	no	no	no	no	no	no	no	no	no	no
19	29	UPPER MIDDLE CLASS	HINDU	ENGINEERING	WORKS FOR PVT COMPANY	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	NO	5 YEARS	13	MODERATE DEPRESSION	USE OF INSTRUMENTAL SUPPORT AND PLANNING	POSITIVE	yes	yes	yes	yes	yes	no	no	no	no	no
20	33	LOWER MIDDLE CLASS	MUSLIM	B.E	FAMILY BUSINESS	NIL SIGNIFICANT	NIL SIGNIFICANT	CIGARETTE SMOKING+	NO	2 YEARS	1	-	-	-	no	no	no	no	no	no	no	no	no	no
21	26	LOWER MIDDLE CLASS	HINDU	ITI	AGRICULTURE	NIL SIGNIFICANT	NIL SIGNIFICANT	TOBACCO CHEWING+	NO	1 YEAR	2	-	-	-	no	no	no	no	no	no	no	no	no	no
22	25	LOWER CLASS	HINDU	10TH STD	FARMER	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	NO	5 YEARS	15	MODERATELY SEVERE DEPRESSION	SELF DISTRACTION	POSITIVE	yes	yes	yes	no	yes	no	no	no	no	no
23	30	LOWER MIDDLE CLASS	HINDU	ITI	AGRICULTURE	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	NO	3 YEARS	12	MODERATE DEPRESSION	SELF DISTRACTION	POSITIVE	yes	no	yes	yes	yes	no	no	no	no	no
24	28	UPPER MIDDLE CLASS	HINDU	B.A.M.S	AYURVEDIC DOCTOR	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	NO	4 YEARS	4	-	-	-	yes	no	no	no	yes	no	no	no	no	no
25	32	LOWER MIDDLE CLASS	MUSLIM	B.COM	FAMILY BUSINESS	NIL SIGNIFICANT	NIL SIGNIFICANT	OCCASIONAL TOBACCO CHEWING	NO	2 YEARS	3	-	-	-	no	no	no	no	no	no	no	no	no	no
26	33	LOWER MIDDLE CLASS	HINDU	B.A	FARMER	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	NO	2 YEARS	1	-	-	-	no	no	no	no	no	no	no	no	no	no
27	25	LOWER MIDDLE CLASS	HINDU	ITI	FARMER	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	NO	3 YEARS	3	-	-	-	no	no	no	no	no	no	no	no	no	no
28	30	UPPER MIDDLE CLASS	MUSLIM	M.COM	FAMILY BUSINESS	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	NO	4 YEARS	4	-	-	-	yes	no	no	no	yes	no	no	no	no	no
29	34	UPPER MIDDLE CLASS	MUSLIM	ENGINEERING	FAMILY BUSINESS	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	NO	6 YEARS	7	MILD DEPRESSION	SUBSTANCE USE	NEGATIVE	yes	no	no	no	yes	yes	no	no	no	no
30	35	LOWER MIDDLE CLASS	HINDU	12TH STD	FARMER	NIL SIGNIFICANT	NIL SIGNIFICANT	TOBACCO CHEWING+	NO	4 YEARS	0	-	-	-	no	no	no	no	no	no	no	no	no	no
31	30	LOWER MIDDLE CLASS	HINDU	11TH STD	FARMER	NIL SIGNIFICANT	NIL SIGNIFICANT	TOBACCO CHEWING+	NO	5 YEARS	1	-	-	-	no	no	no	no	no	no	no	no	no	no
32	33	LOWER MIDDLE CLASS	MUSLIM	ITI	FARMER	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	NO	3 YEARS	4	-	-	-	yes	no	no	no	no	no	no	no	no	no
33	27	LOWER MIDDLE CLASS	HINDU	12TH STD	FARMER	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	NO	2 YEARS	3	-	-	-	no	no	no	no	no	no	no	no	no	no
34	25	UPPER MIDDLE CLASS	CHRISTIAN	M.Sc	WORKS AS A NURSE ABROAD	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	NO	2 YEARS	2	-	-	-	no	no	no	no	no	no	no	no	no	no
35	31	LOWER MIDDLE CLASS	HINDU	12TH STD	FARMER	NIL SIGNIFICANT	NIL SIGNIFICANT	OCCASIONAL BD SMOKING	NO	6 YEARS	7	MILD DEPRESSION	ACCEPTANCE	POSITIVE	yes	yes	yes	no	no	no	no	no	no	no
36	36	LOWER MIDDLE CLASS	HINDU	10TH STD	FARMER	NIL SIGNIFICANT	NIL SIGNIFICANT	TOBACCO CHEWING+	NO	2 YEARS	2	-	-	-	no	no	no	no	no	no	no	no	no	no
37	26	LOWER MIDDLE CLASS	HINDU	10TH STD	FARMER	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	NO	5 YEARS	1	-	-	-	no	no	no	no	no	no	no	no	no	no
38	33	LOWER MIDDLE CLASS	HINDU	12TH STD	WORKS AT A GROCERY STORE	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	NO	3 YEARS	3	-	-	-	no	no	no	no	no	no	no	no	no	no
39	34	UPPER MIDDLE CLASS	HINDU	B.Sc , M.sc	TEACHER	NIL SIGNIFICANT	NIL SIGNIFICANT	NIL SIGNIFICANT	NO	3 YEARS	4	-	-	-	yes	no	no	no	yes	no	no	no	no	no

