PSYCHO-SOCIAL IMPACTS AND COPING STRATEGIES AMONG COUPLES WITH INFERTILITY: A QUALITATIVE STUDY

BY

ANUM ABID

NATIONAL UNIVERSITY OF MODERN LANGUAGES. ISLAMABAD

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ANUM ABID

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AUTHOR'S DECLARATION

I, Anum Abid

Daughter of Abid Jawaid

Registration no: 22-MPhil/Psy/s22

Discipline Psychology

Candidate of **MPhil Psychology** at the National University of Modern Languages do hereby declare that the thesis **"Psycho-Social Impacts and Coping Strategies Among Couples With Infertility: A Qualitative Study."** submitted by me in partial fulfillment of MPhil degree, is my original work, and has not been submitted or published earlier. I also solemnly declare that it shall not, in future, be submitted by me for obtaining any other degree from this or any other university or institution.

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Signature of Candidate

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Name of Candidate

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Date

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DEDICATION

This thesis is dedicated to my late Mother for her love, endless support, and encouragement as she was the one who encouraged me to start this degree. I miss you.

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ABSTRACT

Infertility is a multifaceted condition that exerts profound psycho-social effects on individuals and couples, particularly in societies where childbearing is culturally tied to identity, status, and marital stability. This qualitative study explores the psychological and social impacts of infertility, with a focus on couples in Pakistan, and examines the coping strategies they employ to navigate the emotional and relational challenges it presents. Utilizing in-depth interviews and thematic analysis, the research reveals that infertility contributes to elevated levels of stress, anxiety, depression, social isolation, and marital strain, disproportionately affecting women due to entrenched gender norms and societal expectations. Participants reported experiencing stigma, emotional distress, and pressure from extended families and communities. Coping mechanisms ranged from meaning-focused and emotion-focused strategies to reliance on social and spiritual support. The findings underscore the need for culturally sensitive psychological interventions and support systems that address the holistic needs of infertile couples. This study contributes to the growing body of literature advocating for integrated psychosocial and medical approaches in infertility care, especially in patriarchal and collectivist societies like Pakistan.

CHAPTER 1: INTRODUCTION

1.1 Introduction

Infertility is a complicated and challenging issue that is affecting millions of individuals worldwide. It is present geographically, in different cultures, and regardless of socio-economic boundaries. It is defined as “the females are unable to conceive even trying regularly protected or unprotected intercourse.” It can cause distress, physical, emotional, and social burdens on individuals, couples, and communities. Understanding the complex nature of infertility is very important for addressing its psychological and social effects and impacts. According to Greil et al. (2011), infertility not only affects physical health but is also associated with substantial psychological distress and social stigma, particularly in cultures where parenthood is highly valued. Similarly, Peterson et al. (2006) emphasize the importance of considering emotional responses such as anxiety, depression, and feelings of inadequacy in both partners. The causes will be ruled out and it can help in developing effective intervention plans for support systems for those who are affected by it. The introduction chapter describes the research context, defines key terms, explores the types and causes of infertility, rationale, its importance to study its psycho-social impacts, outlines the rationale and significance of the research, and delineates the objectives.

1.2 Background and Context

Infertility is a common issue which is affecting millions of people worldwide, regardless of cast, ethnicity, geographical region, cultural beliefs and socio -economic status. Infertility is defined as the failure to get pregnant or sustain it till nine months and deliver a healthy baby, even in this duration sexual intercourse is done (Lohrmann, 1995; Lee, 2003). Infertility is not just a a medical condition, it is often perceived as a

lifelong crisis due to its intense impacts on individuals and their relationships (Lee, 2003; Sexton et al., 2010). Everyone is afraid of infertility because it can challenge societal norms and expectations surrounding becoming parents, bringing a healthy offspring, there are cultures where fertility is highly valued (Inhorn, 2003). Moreover, infertility disturbs the various aspects of life, including relationships, identity, and mental health, making it a complicated and alarming concern.

1.3 Definition of Fertility and Infertility

The term fertility is defined as the ability to conceive and continue the pregnancy to the third trimester, whereas infertility means the failure to sustain pregnancy despite concerted efforts (American Society for Reproductive Medicine, 2019). In medical terms, infertility is diagnosed when a couple can't procreate even after treatments (American Society for Reproductive Medicine, 2019). This definition underscores the importance of timing and frequency of intercourse in the context of conception. Fertility is defined as reproduction of children in biological terms (Morgan, 2013).

1.3.1 Types of Infertility: Primary and Secondary

Infertility is divided into primary and secondary categories. Primary infertility happens when a couple can't become parents in first year of marriage, while secondary infertility means the inability to conceive and complete a successful pregnancy (Zegers-Hochschild et al., 2017). The well-defined categories help the healthcare professionals to tailor interventions and treatments based on individual circumstances and medical histories of patients. There are two major primary kinds of infertility in women are primary and secondary infertility.

1.3.2 Primary Infertility

It can be genetically causing, like ovulatory disorders, including polycystic ovarian syndrome (PCOS), abnormalities of the reproductive system, or hormonal imbalances among females

1.3.3 Secondary Infertility

However, after a year of trying, a woman who has already conceived cannot conceive again, which is known as secondary infertility (Walker & Tobler, 2022). Endometriosis, infections, problems from previous pregnancies, or age-related fertility reductions is frequently the causes of this type of infertility. Environmental variables, lifestyle decisions, and underlying medical issues are other contributing elements that may.

To properly diagnose and treat reproductive issues, one must be aware of the many forms of female infertility. There are some reasons which can be contagious and physical that can become a hurdle in conception process this is because of primary infertility, whereas some medical reasons and disorders some past reproductive experiences can lead towards secondary infertility. They can be some medical measures taken by females, such as hormone therapies, assisted reproductive technologies (ART) , or surgical procedures in females are necessary for both types. More study is required to improve treatment results and offer comprehensive assistance to infertile ladies.

- **Ovulatory Disorders:** These disorders impact the ovaries' ability to release eggs, frequently due to thyroid dysfunction, polycystic ovarian syndrome (PCOS), or hormonal imbalances.
- **Fallopian Tubes** The damage and blockage caused to fallopian tubes, either the fertilized egg cannot reach the uterus or the sperm cannot reach the egg, resulting in tubal factor infertility. Endometriosis, infections, and prior surgery are common causes.
- **Uterine Disorders:** Infertility can result from structural anomalies, fibroids, or scar tissue in the uterus that obstruct implantation or pregnancy maintenance.
- **Infertility due to Endometriosis:** It is a condition in which the endometrial tissue grows outside the uterus can harm ovarian function, egg quality, and embryo implantation by causing inflammation, adhesions, and scarring In certain situations, there is no apparent reason for infertility.

1.3.4 Male infertility and it's types

Males can also have different types of infertility disorders

- **Reproduction Disorders**

Low sperm count is called as oligospermia, azoospermia is the semen devoid of sperm. Sperm with abnormal shapes are known as tetanospasmin, weak or sluggish sperm are known as asthenospermia. Cryptozoospermia is the extremely rare sperm that can only be found by specialized testing.

- **Hormone imbalance in males**

The fertility of males can be significantly affected by hormonal illness. Low testosterone levels cause hypogonadism, a disorder that reduces sperm production. When excessive amounts of prolactin impede the formation of sperm and testosterone, the condition is known as hyperprolactinemia. Some hormones imbalance such as thyroid problem, it has hyperthyroidism and hypothyroidism, this is common in women which can directly impact fertility. Some other disorders which are inadequate hormone production and Kallmann syndrome is a genetic disorder that makes in infertile and delayed puberty among teenagers.

- **Obstruction:**

Sometimes the sperms can't reach the women's uterus this is known as obstruction. A vasectomy is a surgical technique in which the transport of sperm is deliberately blocked. A hereditary disorder known as Congenital Absence of the Vas Deferens (CAVD) causes sperm ducts to be absent from birth. Infections, trauma, or inflammation can also result in obstructions of the epididymal or vas deferens, which stop sperm from escaping.

- **Hereditary Diseases:**

Additionally, infertility can result from genetic problems. A disease which is known as Klinefelter syndrome (XXY syndrome) is caused by an extra X chromosome and impacts sperm production and testicular function. The Y-

chromosomes have micro deletions, the main genetic material which is supposed to make the sperms production is not present. Sometimes a disorder which is called as Kartagener's syndrome it effects the cilia's structure and movement of the sperms in males, which causes many problems within sperm motility.

- **Sexual Problems**:

Another factor contributing to male infertility is sexual and ejaculatory problems. When the sperm enters in the womb it flows into the bladder rather than out through the urethra in retrograde ejaculation, and erectile dysfunction is the hindering in production of ejaculation. A delayed ejaculation, also known as an ejaculation, is the inability or difficulty to ejaculate, while premature ejaculation, if it happens before penetration, can lower the odds of conception.

- **Inflammatory diseases and infections can harm reproductive organs:**

Mumps-related orchitis produces inflammation in the testicles, whereas epididymitis causes epididymis swelling, interfering with sperms going to its exact location. Some sexually transmitted infections (STIs), those are gonorrhoea and chlamydia, can result in infertility by causing blockages and scarring.

- **Other disorders related to male infertility:**

Another common ailment called varicocele occurs when enlarged veins in the scrotum raise testicular temperature, which reduces sperm quality and production. Anti-sperm antibodies and other autoimmune diseases arise when the immune system unintentionally targets sperm, impairing their motility and function.

1.4 Epidemiology of Infertility in Pakistan

Infertility affects approximately 50 million couples worldwide, which is a big number effecting the married couples in Pakistan who are diagnosed with infertility (Hodin, 2017; Ali et al., 2011; Batool & de Visser, 2016). In Pakistan,

infertility can develop number of challenges and affects both men and women (Bhamani et al., 2020). The prevalence of infertility among women in Pakistan has increased by 14.962% over almost three decades, from 1366.85 per hundred thousand in 1990 to 1571.35 per hundred thousand in 2017 (Sun et al., 2019).

Both male and female factors contribute equally to infertility, men are accounting for 40%, similarly 40% is because of women whereas remaining 20% can be of different factors which are not identified. The common cause of male infertility is less sperm count, hormonal imbalances, varicocele, cryptorchidism, orchitis, and intercourse difficulties. In women, common causes include disturbances in ovarian follicle growth (ovulatory dysfunctions), structural defects of the uterus, and vaginismus (Brassard et al., 2008; Heikkurinen, 2019; Mustafa et al., 2019).

The absence of a standardized definition of infertility has led to confusion. Medically, infertility is diagnosed in couples unable to conceive despite engaging in regular, unprotected intercourse (Sermonn & Viville, 2014). Despite the substantial burden, many couples and individuals seek medical treatment, with some achieving success. Infertility profoundly impacts women's lives, with the World Health Organization (WHO) estimating that over 10% of women worldwide face infertility (Infertility, 2023). The prevalence of infertility, affecting both genders equally, has remained unchanged for the past two decades, with global rates increasing annually by 0.370% (Roode et al., 2019).

1.5 Causes of Infertility

There can be many factors that leads towards infertility, some are due to diseases which can affect both partners regardless of gender, the age of women is also important most studies suggest this that younger women can conceive healthy babies, but it can be different for each person (Vander Borght & Wyns, 2018).

Numerous factors contribute to infertility, encompassing both male and female reproductive health issues. Common causes include ovulatory disorders, tubal blockages, uterine abnormalities, hormonal imbalances, and sperm abnormalities (American Society for Reproductive Medicine, 2020). It’s important to understand the underlying causes of infertility is essential for devising effective intervention plans and providing appropriate support system to affected individuals.

Studies conducted among Western populations have extensively examined the psychosocial impacts of infertility, revealing symptoms such as low self-esteem, stress, depression, anxiety, marital dissatisfaction and divorce, social maladjustment, and feelings of burnout, losing control among infertile females (Stirtzinger & Robinson, 1989; Lalos et al., 1985; Daniluk, 1988; Tarlatzis et al., 1993). However, the generalizability of these findings to other cultural contexts, particularly some diseases Polycystic ovary syndrome infertility (PCOS) , remains unclear. Qualitative research among African women and couples has shed light on differing experiences, where childlessness has been associated with marital dissatisfaction, divorce, social stigmas and marginalization, abuse mental and physical, impoverishment (Sundby, 1997; van Balen & Visser, 1997; van Balen & Gerrits, 2001).

Infertility is characterized by the inability of a couple to conceive after several attempts after one year of marriage (Greil, Slauson-Blevins, & McQuillan, 2010). Among women, an ovulation caused by polycystic ovarian syndrome (PCOS) is identified as the leading cause of infertility, contributing to approximately 75% of infertility cases worldwide (Gorry, White, & Franks, 2006). The personal and societal ramifications of infertility are extensively documented (Ericksen & Brunette, 1996; Papreen et al., 2000; Fido, 2004), with religious, cultural, and social expectations exacerbating feelings of low mood (Greil et al., 2010; Gorry et al., 2006).

1.6 Infertility and it's Challenges and Impacts

All over the world, including Pakistani society, barriers such as lack of reproductive healthcare, illiteracy, patriarchal norms, social oppression, and violence against women impede access to healthcare (Perritt et al., 2022). Infertility induces social and psychological distress, affecting marital relationships. Societal pressures often lead to uncooperative behavior from spouses and a desire for second marriages, further stressing women. Infertility is categorized into primary (a woman's inability to conceive for the first time) and secondary (unable to conceive after a live birth) (Gibson & Myers, 2000).

Infertility has effected the United States Of America (USA) , infertility affects 10-15% of the population, with 85% conceiving within a year (ASRM, 2013).

Infertility profoundly impacts biological, psychological, and social aspects of individuals or couples. Infertility necessitates external assistance like fertility awareness-based methods (FABMs) for pregnancy

(Kicińska et al., 2023), thwarting societal expectations of starting a family after marriage. In Pakistan, the infertility rate is 21.9%, comprising 3.9% primary and 18.0% secondary infertility (Ali et al., 2011).

Infertility can induce psychological distress, and other psychological disorders such as including low mood, neurosis, anxiety particularly among women (Begum et al., 2014; Naz et al., 2022). Social, cultural, emotional, physical, and economic factors contribute to infertility's complexity, with stigma, discrimination, and economic barriers hindering diagnosis and treatment (Khan et al., 2011). Infertility's global prevalence is estimated at total 80 million, with 40% are caused by male factors,while remaining 40% are due to females, and total 20% are unknown causes (Lykeridou et al., 2019). Infertility treatment can exacerbate psychological distress, underscoring the need for tailored psychological support (Lykeridou et al., 2019).

A major source of stressor in life, infertility has a long-lasting effect on the psychological health and standard of living of those who are experiencing it, especially women. A case controlled, cross-sectional study was conducted at a hospital, study (2022) investigated that causes of mental illness, how it was impacting the overall quality of life of female infertile. According to the findings, infertility is a psychosocial crisis rather than just a medical illness, necessitating a multidisciplinary strategy that incorporates medication and psychological care. According to the results, 46.4% of infertile females had a higher number of prevalence psychiatric disorders, including anxiety, sadness, and stress-related illnesses, than fertile females the results proved that psychological suffering was more noticed in the quality of life disturbing emotional and mind-body dimensions among people, hiding the pervasive causes of infertility that go beyond its medical implications.

1.7 Importance of Studying Infertility's Psycho-social Impacts

Infertility had its physiological impacts, which produces stress on psycho-social domains of individuals and couples. It was causing emotional distress, social stigma, and relationship strain also questioning the abilities of both genders (Greil,

1997). Exploring these psycho-social impacts is vital for promoting holistic approaches to infertility care and support.

Examines if induced abortions and subsequent tubal infertility are related. In a casecontrol study, women with a diagnosis of tubal infertility were compared to a control group of women who had conceived at least once but were not infertile. Comparing women with a history of induced abortion to those without, the results showed no statistically significant increase in the incidence of tubal infertility. The study did point out that the risk could be higher if an infection exacerbated the abortion or if more than one abortion was carried out. Although induced abortion by itself does not significantly raise the likelihood of tubal infertility, our findings imply that related complications may play a role in future reproductive difficulties (Daling et al., 1985).

1.8 Psychological Impact of Infertility

Infertility is recognized as a highly distressing experience associated with decreased marital satisfaction and sexual functioning (Peterson et al., 2014; Repokari et al., 2007). Individuals diagnosed with infertility commonly experience feelings of worthlessness, anxiety, depression, guilt and shame, grief, (Cousineau & Domar, 2007; Rooney & Domar, 2016). Moreover, infertility can negatively impact self-esteem, with lower levels being linked to low mood and depression (Peterson et al., 2014; Verhaak et al., 2007).

Low mood, stress, anxiety and depression is commonly more among women who were infertile (Boivin et al., 2017). The research has analysed a that there is a positive association between infertility issue and distress, with infertile women had diagnosed of extreme stress, anxiety and depressive mood as compared to their male partners (Gameiro et al., 2013; Volgsten et al., 2010). Gender role in psychological problems may be attributed to societal pressures achieving womanhood with motherhood and the societal emphasis on achieving becoming a parent is considered a milestone (Huppelschoten et al., 2013; Peterson et al., 2014).

1.9 The Societal Impact of Infertility on Women

Still in different cultures, childbearing is linked with femininity and womanhood, most people believe this women are incomplete if she can't reproduce making infertility a concern for women, leading psychological stress and societal stigmas .Pakistan is a patriarchal society, infertility is often considered as solely a women's problem, that is leading to increase in divorce rate , physical and verbal abuse, and even domestic violence (Chang & Mu, 2008; Inhorn & Van Balen, 2002; Ismail & Moussa, 2017; Loke et al., 2012). A number of effects are because of infertility label includes marital discord, second marriage of husbands, social stigmatization, and separation, negatively impacting a female's life, because her marital and social relationships are dependent on fertility (Batool & de Visser, 2016; Hakim et al., 2001; Ismail & Moussa, 2017; Lindsey & Driskill, 2013; Qadir et al., 2013; Rasool & Zhang, 2020).

A study was conducted by Hassan et al. (2019) it was a empirical research in Baluchistan city of Pakistan, analysed the problems and stigmas which were faced by infertile women due to patriarchal society cultural beliefs, these stigmas were leading to feelings of failure, isolation, and strained social relationships. Given these challenges, the present study aimed to investigate the effect of infertility on female's social status and worth in a community which is leaded by men only, the data was collected from an area where there is a proper discriminatory rules and patriarchal values wins.

1.10 Research Rationale and Significance

Research on infertility's psycho-social impacts is essential for several reasons. Firstly, it sheds light on the daily experiences of people grappling with infertility issues, informing about the development of patient-cantered interventions and support services (Greil et al., 1989). Secondly, it enhances our understanding of cultural and societal influences on infertility experiences, facilitating culturally sensitive care delivery (Dyer et al., 2016). Lastly, it contributes to the broader discourse on reproductive health, advocating for policies and initiatives that address infertility-related challenges comprehensively. Another reason of choosing this topic is infertility is still considered as a social taboo, people are reluctant to talk about this even in 21st

century. As it can affect a couple's psychosomatic health that's why it's important to provide awareness regarding infertility issue. I wanted to examine how couples can cope in such situation as it can deeply affect individual's mental health. Rationale of this study is that infertility even if caused by the medically diagnosed cause in one member of couple or due to an unknown factor, will have an effect on the couple as a whole as they both fail to fulfil their desire to bear a child. Estimates suggest that between 48 million couples and 186 million individuals live with infertility globally. Hence, it is important to address this condition and how infertility impacts couples, their marital and social life and how they cope with infertility

There is a existing literature gap among Pakistani population, there are many cultural and societal expectations when a couple gets married. Even though family planning is a very private matter but people are fond of asking questions to couples which can result in developing depression and anxiety and other psychological disorders. Marital relationships stability is totally dependent on having children. Mostly women are accused of infertile problems as it's easy to blame women as compared to men in our society. So, my research will help those couples who are facing infertility problems and can raise awareness regarding this problem. My research can help future researchers and psychologist, medical professional for developing culturally sensitive interventions.

1.11 Research Objectives

The objectives of the present study are as follow:

- To explore the psycho-social impacts of infertility among individuals and couples, including the challenges they face and coping mechanisms employed.
- To examine the cultural and societal factors shaping perceptions of infertility and access to care, particularly within the context of Pakistani culture.
- The study aims to contribute valuable insights to the existing body literature on infertility and inform strategies for improving support and services for affected individuals and communities.

1.12 Conceptual Framework of the Study

Infertility is the independent variable (IV) among women. Table 1 shows the conceptual framework showing dependent variables (Social impact and two background variables (age and educational status). Infertility indicates stressors which results in an individual low self-esteem, poor self-image, and he/she identifies as a failure (Abbey et al., 1994; Blenner, 1990, 1992; Carmeli & Daniluk, 1988; Levin et al., 1997; Miall). Simply talking about infertility was considered as a shame, seeking medical treatment for infertility contributed to physical stressors. As there is less support system to such couples' emotional effects of being infertile can have a significant effect on the individual, the couple, and the community. The empirical work states that the emotional well-being of infertile women was lower than fertile women and infertility significantly boosts the self-esteem among infertile women. There are number of relationship stressors indicated that Infertility can contribute to severe marital problems and infertile women likely avoids gathering because of criticism

The Biopsychosocial theory of infertility is suitable in the context of the study area in Pakistan. The implications of this theory strengthen and support the study finding. We add to theoretical arguments that the social and cultural consequences are higher than other effects on infertile women in Pakistan. This is because of the prevalence of existing socio-cultural setup which accelerates non-supportive attitudes toward infertile women. Bio psychosocial theory is divided into three parts: first is biological perspective which is important to understand it includes hormone imbalance, lack of proper diet, genetic disorders due to cousin marriages in Pakistan. Second is psychological perspective women's worth is related to motherhood in our society if a woman can't bear child she is blamed for everything, she has to face the consequences of her husband's second marriage these situations can lead towards different psychological disorder like depression, stress. The third perspective is social perspective some traditional and cultural barriers does not allow couples to have modern treatments for infertility, they are forced to perform some rituals as childlessness is mostly associated with women only because men can't tolerate anything their masculinity.

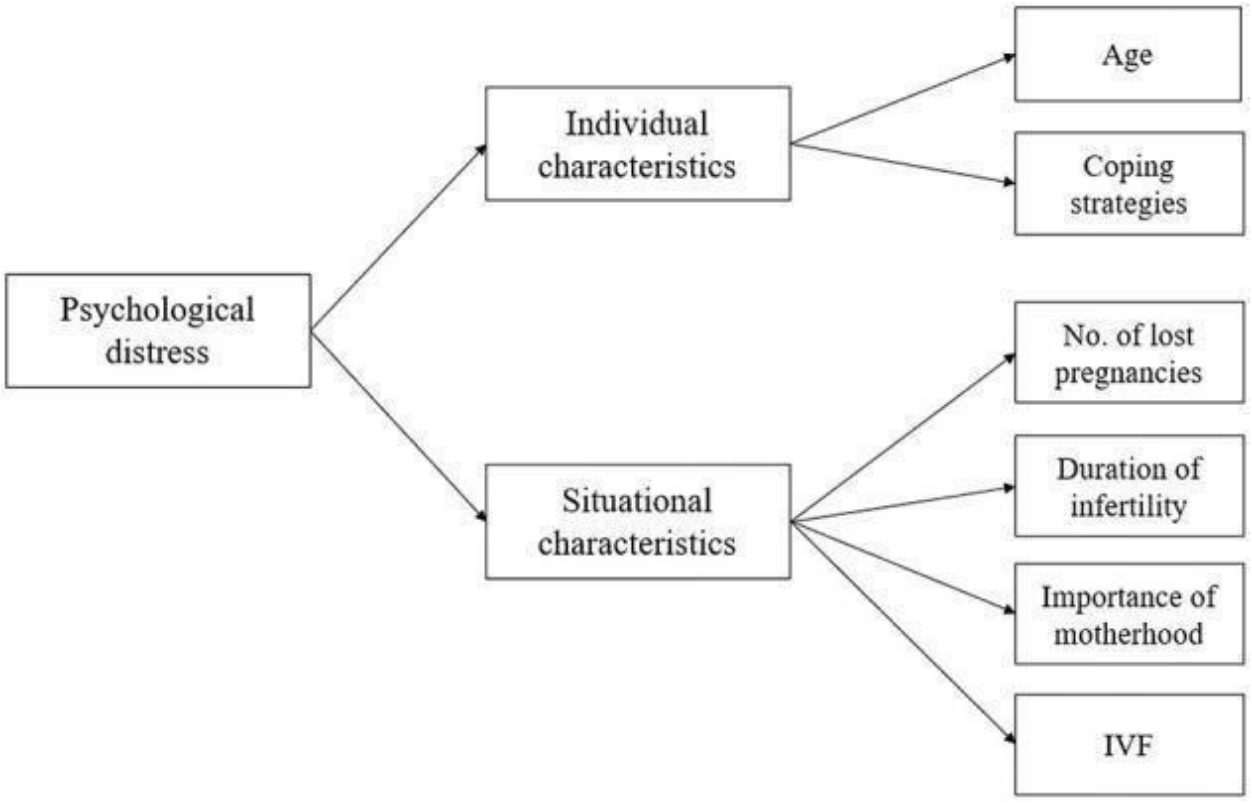

Figure. 1 The Bio psychosocial conceptual framework, based on Zurlo et al. (2020)

In present study, we build upon a multi-dimensional model of infertility-related stress proposed by Zurlo et al. (2020) and incorporate novel variables such as the number of lost pregnancies and ART status to further understand the psychological impact of infertility (Zurlo et al., 2020). This framework is checked by previous literature, including studies by Maroufizadeh et al. (2015), Reis et al. (2013), and Moura-Ramos et al. (2016), which highlights the importance of stressors in life, anxiety and depression .it also tells about miscarriages and death of child (Bhat & Byatt, 2016; Wallis, 2021; Wenzel, 2020).

The effect of infertility on overall psychological well-being, and resulting in anxiety and depression, has been widely understood in literature (Maroufizadeh et al., 2018; Negoi?ă & Băban, 2020; Simionescu et al., 2021). Other studies have also analyzed the coping strategies among individuals undergoing infertility treatment, the results show the importance of adapting different coping mechanisms (Wu et al., 2014)

and the mediating role of coping strategies in the relationship between infertility-related stress and anxiety (Zurlo et al., 2020).

On the basis of this conceptual model and after studying the past researches our study aims to investigate the psycho-social impacts and coping strategies among couples facing infertility, considering variables such as ART status and the number of lost pregnancies.

1.13 Conclusion

There are many issues needs to be addressed about infertility. By delving into the definitions, types, and causes of infertility, we have illuminated its epidemiology and the difficulties encountered in places such as Pakistan. We've talked about the social aspects and psychological effects of infertility, especially among females emphasizing the stress, worry, and social constraints they frequently are facing in daily lives. Male infertility issues are another topic my study focuses on. Furthermore, we have looked at the societal ramifications. Infertility have many problems that are beyond physical health; they can affect individuals, couples, and society on each level. From the difficulties in diagnosing and treating the condition to the significant psychosocial repercussions that individuals impacted endure. Fertility is defined as a couple's ability to procreate naturally. Generally, fertility is commonly associated with women as they conceive and carry the pregnancy to bring a child in couple's life. However, men's fertility is an essential part of reproduction process. The biological mechanism behind fertilization process include healthy sperm production by male, enough female eggs, successful sperm transfer from male's testes to the fallopian tubes in female's reproductive system, fusion of a healthy sperm with an egg to cultivate into an embryo which then implant into the uterus lining thus a pregnancy is conceived. Disruption in any of the step in the given process may lead to infertility. Infertility is a disease of the male or female reproductive system defined by the failure to achieve a pregnancy after 12 months or more without contraceptive medication (WHO, 2020). Other factors such as miscarriages and still births are not considered as infertility. Infertility is further elaborated as two types named as primary and secondary infertility. Primary infertility is the condition when female has never conceived, or couple is unable to conceive 1 year after trying. Secondary infertility

is when the couple had one previous successful pregnancy however female is unable to conceive again. Infertility can be caused by a number of factors including complications in male or female reproductive system, age, existing medical conditions, medication side effects, substance abuse, obesity, smoking, stress and other environmental factors. Hence, infertility is a challenge for the couple apart from an individual struggle which lead towards psychological distress as cultural constrains and societal pressure impact couples. In addition to that, infertility is a medical condition that can be treated in some cases hence, there are options available for such couples to become parents however, it depends on how a couple cope with the news and decide to choose for a medical procedure or look for other possibilities.

Additionally, we've examined the societal implications, including stigmatization, marital discord, and social isolation, further emphasizing the far-reaching consequences of infertility.

I will conclude this that infertility is a complicated problem that requires awareness, attention, and counselling programs. Also exploring its psycho-socio aspects to make accessible intervention plans.

CHAPTER 2: LITERATURE REVIEW

Investigating the relationships between personal traits, coping mechanisms, and psychosocial elements which are associated with infertility in couples this is the goal of my research. Regarding infertility, the study specifically aims to analyze the effects of various coping techniques, including emotional, problem solving and tactics, on psychological wellbeing. Furthermore, the study intends to investigate how cultural barriers influence and shape those coping techniques and perspectives on the diagnosis and treatment of infertility.

This study will help future researchers and medical professionals, clinical psychologist for developing interventions and support programs for couples who are facing the infertility problems.

2.1 The Issue of Infertility

The issue of infertility, defined as unable to conceive even after 12 months of trying sexual intercourse, or after 6 months for women aged 35 or older (American Society for Reproductive Medicine, 2015; World Health Organization, 2010), has long been a focus of research due to its multifaceted implications at both individual and societal levels (Domar et al., 2018; Gameiro et al., 2013).

Infertility can have many causes; regardless of gender both males and females can have this problem. 37% of women cases can be caused by uterine abnormalities, tubal obstructions, and polycystic ovarian syndrome (PCOS) (Bitler & Schmidt, 2011).. Low sperm count, poor motility, or anatomical abnormalities are frequently associated with male infertility, which accounts for over half of all cases.

The complicated epidemiology, assessment techniques, and therapeutic modalities of infertility are highlighted by research. A report at the “Infertility Underscores the Increasing Demand for Specialist Training in Reproductive Health: Epidemiology & Evaluation II” session (May 18, 2018). Male infertility is one crucial topic that is still not given enough attention in urology residency programs across (MP19-19). The lack of andrology exposure during training could lead to clinical

knowledge gaps that impact treatment results and diagnostic precision. Reproductive medicine patient care could be significantly improved by addressing this shortcoming through improved educational initiatives and interdisciplinary cooperation (Abou Ghayda et al., 2018).

Many reasons can cause male infertility. There are 40% cases due to male infertility the major reasons can be nowadays diet, hormone imbalance, watching adult content can lead towards early ejaculation. Which can cause loss of interest in sexual desires and smoking. Serious problems with sperm production might result from genetic reasons, such as micro deletions in the Y chromosome. Another factor linked to male infertility is hormonal abnormalities, namely those affecting follicle-stimulating hormone and testosterone. Pesticides, heavy metals, and endocrinedisrupting substances have all been associated with lower sperm quality. Nowadays people lifestyle have a drastic changes especially waking up late night , smoking and eating unhealthy food can also cause effects on sperm count among men (Kumar & Singh, 2015).

In Pakistani society, the blame of childlessness is often placed automatically on the women, without looking into the actual causes of the infertility. This can often lead to severe disturbing consequences such as depression, emotional stressors, divorce, and even deprivation of the inheritance. Infertile women in Pakistan face greater psychological stress due to physical (70%) and verbal abuse (60%) (Sami & Ali, 2006). Couples with high self-efficacy often seek professional consultation or explore options like adoption or fertility treatments (Cousineau & Domar, 2007).. Social support plays a crucial role, with infertile women more likely to communicate with spouses, family, and friends to seek solutions (Lechner, Bolman, & Dalen, 2006). Many women employ problem-focused coping strategies, such as seeking professional help and reinterpreting the situation positively (Durak, 2007). Stress can be reduced by religious faith and spirituality are important coping mechanisms (Domar, Clapp, Slawsby, Dusek, Kessel, & Freizinger, 2005).. If someone avoids the problem how he /she can cope with it .Denial can become a root cause for psychological stressors(Fido, 2004).

Literature provide evidence that both male and female do experience certain emotions and psychological turmoil after being diagnosed as infertile, a research

indicates that emotional factors were presumed casual in 30% to 50% of infertility cases (Mazor, 1984; OTA, 1988; Seibel and Taymor, 1982). Another study states that a heightened emotional distress experience by many infertile couples may be more a consequence of infertility than the cause. Descriptive anecdotal reports suggest that couples with fertility problems undergo various forms of severe psychoemotional distress which may render them susceptible to depression (Dunkel-Schetter and Lobel, 1991). Literature provide evidence regarding the impact psychological and social factors have on infertile women. An ample amount of work is present addressing women psycho-social experiences. One empirical research indicates that women facing fertility problems may experience a turmoil of negative feelings, in particular at the time when they are attempting to conceive but realize they are not succeeding (Bjorn, Isolde, and Hugo.1999). According to several researches, infertility is often seen as a psychosocial crisis with strong emotions for the expectant child (Tulppala, 2012), and feelings often fluctuate between hope and despair (Toivanen et al.,2004). Infertility can be experienced as longing or as a huge loss (Miettinen & Rotkirch, 2008). It can be associated with sadness, anxiety, stress,feelings of inferiority (van Rooij et al., 2009; Tulppala, 2012), failure (Toivanen et al., 2004), guilt (van Rooij et al., 2009; Toivanen et al., 2004) and a fear of being left alone and without a family (Tulppala, 2012). Moreover, Pakistani culture and society has an impact on infertile couple's psychological wellbeing as its collective culture tends to only accept extended families and perceive infertility as a threat while associate it with female as the only cause. A study explains that, being a patriarchal society, most Pakistani men had a fallacy about infertility, believing it a women's problem (Ali et al., 2011). Empirical studies in Pakistan have found that most infertile women have faced severe marital conflicts and were abused physically and verbally (Hakim et al., 2001). Infertility negatively influences a woman's life, including her marital life and social relations (Batool & de Visser, 2016; Hakim et al., 2001; Ismail & Moussa, 2017; Lindsey & Driskill, 2013; Qadir et al., 2013; Rasool & Zhang, 2020). Social impacts of infertility are evident in the given research as it states that, the problem is more of a serious concern when the spousal relationship gets negatively affected by the trauma. Moreover, the in-law's ridicule towards the female partner, repeated threats of the second marriage, and economic insecurity in the future bring huge disturbances in the life of an infertile female (Ullah, Ashraf, Tariq, Aziz, Zubair, seema, Sikandar, Ali, Shakoor, Nisar. 2021). There is not much research present concerning the coping

mechanisms and techniques adopted by infertile couple to get along with their situations however the results of one study indicates some factors that play a part in coping. The study explains that, coping of infertile women can be promoted by supporting and strengthening their personal resources as well as the relationship between couples. ((Halkola et al., 2022)

2.2 Age and Duration of Infertility

Failure in delivering a baby is related to women's psychological distress. (Domar et al., 2015; Peterson & Newton, 2014). Death of fertilized eggs and babies are positively correlated with anxiety, depressive disorder, grief and loss, feelings of emptiness, Posttraumatic stress disorder (PTSD) , Unstable relationships and low quality of life (Rooney &

Domar, 2016). Furthermore, self loathe, self-blame, worthlessness, negative image ,social discrimination, fear, increases loss and grief, injustice, or low value are most common among infertile women following the loss (Repokari et al., 2007). According to Donkor and Sandall (2007), infertility is stigmatized in many cultures, which can cause social exclusion and strained relationships.

As the time increase the length of infertility, is linked to higher levels of depression among individuals (Huppelschoten et al., 2013; Peterson & Newton, 2014). Some studies have analyzed that the long-term infertility is positively correlated with anxiety and stress (Domar et al., 2015). There is a strong connection between infertility and stress related factors has been studied, It has explored both the affects of stress on fertility and the impacts of infertility on stress and psychological well-being (Demyttenaere et al., 2016; Greil et al., 2018). While the association between stress and fertility has negative effects which are cause of conflict (Domar et al., 2015).

Some other research's has suggested that the duration of infertility might not directly relate with anxiety, but there is a mediating role of motherhood (Greil et al., 2018). Age varies differently, indicating a negative correlation between age and infertile females anxiety (Gameiro et al., 2013), Another study quoted this that there is a positive association between age and distress, anxiety, and depression (Peterson & Newton, 2014).

A multi-dimensional model of infertility-related stress, based on the Transactional Theory of Stress (TTS), was proposed by Zurlo et al. (2018). This model incorporates various risk and protective factors, including individual characteristics, situational factors related to infertility, and perceived sources of stress in infertility, aiming to predict psychological distress among couples undergoing infertility treatments.

Some couples who can afford infertility treatments such as Invitro fertilization (IVF) and intrauterine semination (IUI), but these treatments are too costly (Adamson et al., 2018) . Assisted reproductive technologies (ART) can be helpful for infertile couples but some factors such as age and medical concerns can have a massive impact on success rate of the treatments (Sunkara et al., 2011).

The probability of getting pregnant becomes low at the age of 40, in some cases 30 age can be alarming. Age can have an impact on the quality of eggs (ovaries); some eggs can have a risk of abnormalities in chromosomes. At mature age women menstrual cycle can be disturbed, the menstrual cycle is very important for women and some days are special for conceiving for example ovulation. Increase in age can have less chances of ovulation during menses. Another problem can be associated with age factors for women the treatment for infertility cannot be successful because the amount of nourishment and nutrition won't be provided to the eggs. In some cases eggs can freeze with the help of modern technology, donor eggs can also help in getting pregnant (Speroff, 1994).

2.3 Psychological and Emotional Impact of Infertility on Couples

Infertility is a physical condition but also casuing damage to emotional and psychological challenge for couples. Research indicates that both men and women experience significant distress when faced with infertility, including stress, anxiety, depression, and feelings of inadequacy (Newton et al., 1999; Peterson, 2000; Farzadi et al., 2007; Remennick, 2000). The inability to conceive often leads to a sense of loss, grief, and frustration, impacting individuals' mental wellbeing and their relationships.

Infertile women often says that anxiety is increased due to the uncertainty surrounding fertility treatment outcomes and the prolonged duration of ART

procedures (Drosdzol & Skrzypulec, 2009; Kiani et al., 2011). Additionally, depression among infertile women is associated with low self-esteem, feelings of shame, stress, and concerns regarding sexuality, social relationships, and maternal roles (Gameiro et al., 2013; Peterson et al., 2014). The desire for parenthood indirectly influences depression levels through coping mechanisms such as experiential avoidance and the perceived impact of infertility (Peterson et al., 2014; Volgsten et al., 2010).

The infertility is a issue across the globe, inability to conceive a child can cause higher levels stress among couples it can lead towards social isolation. Reproductive treatments are too costly, not all treatments have high success rate. Despite being a serious public health issue, infertility is still frequently questioned, which tells the importance for the need of more thorough and integrated approach to its treatment (Panda, 2021).

A research was conducted by Hari et al. (2024), A total number of 126 infertile couples who were attending a tertiary-care infertility clinic at the Government Medical College in Thiruvananthapuram, Kerala, India, had their sociodemographic characteristics linked to depression investigated. The results showed a 51.6% prevalence of depression among all couples, with a greater number in females (48.4%) than in males (33.3%). The study found a strong correlation between one partner's depression and an increased risk of depression in the other ($p=0.001$, odds ratio=25.196), even if the difference was not statistically significant. Living in a shared or extended family without children was also substantially associated with depression ($p=0.020$). Depression and social pressure were strongly correlated among female participants ($p=0.021$), while depression and poor focus were significantly correlated in both.

The mental aspects of fertility goals among Estonian teenagers with a range of sexual orientations. Due to social constraints, internalized shame, and expected difficulties in becoming parents, their findings showed that teenagers with minority sexual orientations had decreased fertility intentions. The study emphasized that prejudice and a lack of social support frequently cause these people to face increased psychological discomfort, which may be a factor in their decreased desire for children. It can cause extreme psychological problems (Vseviov et al., 2023).

2.3.1 Psychological Impact on Women Facing Infertility

While both men and women are emotionally affected by infertility, women tend to experience higher levels of stress, pressure, anxiety, and depression (Newton et al., 1999; Peterson, 2000; Farzadi et al., 2007; Remennick, 2000). Studies have indicated that up to 50% of infertile women consider infertility as the most challenging issue they face, akin to the psychosocial burden experienced by patients with life-threatening diseases (Yanikkerem et al., 2008; Ramazanzadeh et al., 2009).

For women, the underlying causes of stress and anxiety upon learning about infertility often revolve around the loss of motherhood and reproductive abilities, negative self-concept, and societal stigma (Podolska & Bidzan, 2011; Watkins & Baldo, 2004). In response to infertility, women commonly adopt emotion-focused coping strategies such as mourning, prayer, and seeking solace in religious beliefs (Schmidt et al., 2005; Lemmens et al., 2004). However, in regions with traditional cultural norms like Turkey, infertile women may face exclusion, violence, and stigma, leading them to avoid seeking helps and resort to traditional fertility methods (Weinger, 2009; Yildizhan et al., 2009).

Despite the prevalence of infertility-related psychological issues, there has been limited qualitative investigation into the psychosocial problems and coping strategies of infertile women, especially in regions like Turkey where specialized psychiatric support within infertility clinics is lacking (Tasçi et al., 2008; Akin & Demirel, 2003).

Study was conducted at Africa analyzing the fear of not conceiving a child and how it can have a negative impact in overall well-being .It was examined that most couple are suffering because they were infertile. The fear of infertility can take many different forms, such as worry about not becoming pregnant, fear of social and familial rejection, and concerns about unstable or abandoned relationships. Women bear a disproportionate amount of hardship since they are frequently held responsible for infertility, which can result in emotional pain, sadness, and even violence against intimate partners. The research also explores that unregulated fertility treatments, early marriage and early teen pregnancies , and societal pressure to procreate soon are all influenced by fear of infertility. The emphasis society places on having children

has led many people to turn to unreliable medical treatments or traditional healers. The study findings are important for developing culturally sensitive treatments and mental health support systems that help ease infertility-related fears and strengthen the mental toughness of persons who encounter them (Boivin et al., 2020). The study investigates the connection between Iranian women's infertility and domestic violence. According to the study, The ratio was 70% of infertile women who had experienced psychological abuse, 60% had experienced sexual assault, and 68% had experienced physical violence. Significant correlations between infertility and all types of domestic abuse were found by statistical analysis ($P < 0.05$). It was determined that factors including husbands' unemployment and lower educational attainment increased the risk of domestic violence. The research findings states how important it is to check for domestic violence in medical settings, especially for infertile couples, in order to offer them all-encompassing support and take care of the various issues they are facing (Rahebi et al., 2018).

2.3.2 Quantitative and Qualitative Approaches in Understanding Psychological Impact

Studies who have quantitative and qualitative research methods have been employed to study the psychological impact of infertility. Quantitative studies utilize standardized measures and tools to measure variables such as depression, anxiety and stress. It provides valuable information into prevalence of infertility and it’s risk factors (Domar et al., 2018). Qualitative methodology gives better understanding of individuals' experiences, capturing the complexity of emotions and coping strategies in response to infertility (Cousineau & Domar, 2018).

2.3.3 Comorbidity

If there is infertility issue it also brings diseases such as harmful and chronic diseases for both genders. Psychological problems for instance depression, anxiety, stress, suicide ideation, somatic illness can be a big concern for both genders (Sartorius et al., 2009) .

Infertility can also lead towards cardiovascular diseases, it can also develop risk of breast cancer, extragonadal comorbidities can be a risk for women (Lorzadeh et al., 2020) .There are number of diseases associated with infertility among men , men can also develop heart diseases , decrease in metabolism , disturbance in endocrine system . So many underlying conditions can be a cause of other disorders (Ventimiglia et al., 2016).

In some cases, infertility and miscarriage can have a connection fibroid in the uterus, cysts and implantation can increase risk of miscarriages. Thyroid problems are common in women, increase in weight, some diseases run in genes it can also result in frequent miscarriages and infertility (Sanghavi et al., 2022). Some toxins and infections can cause pregnancy loss among females it can also develop risk of infertility (Kojok et al., 2023).

2.4 Societal and Cultural Norms Affecting Infertility and Expectations Surrounding Parenthood

Infertility experiences are shaped by social and cultural factors, influencing individuals' perceptions, coping strategies, and access to care. Societal norms surrounding parenthood and gender roles contribute to the stigma associated with infertility, exacerbating psychological distress (Domar et al., 2018). Medical intervention has different effects on Cultural beliefs and practices and fertility treatments vary widely, impacting individuals' willingness to seek treatments (Crawford & Hammarberg, 2017).

All individuals are expected to perform the conventional tasks of parents, and becoming parents. These standards are challenged by infertility, which results in emotions of inadequacy and failure (Gameiro et al., 2013). The psychological strain that infertile people endure is exacerbated by societal expectations to live up to the ideals of parenthood (Greil et al., 2018).

Dyer, Lombard, and Van der Spuy (2009) stated the impacts of emotions and psychological effects on infertility of men by analysing the psychological suffering that South African men experienced as a result of infertility. According to their study, infertility is common perceived problem that directly affects women, It results in a

disrespect for men's emotional needs. But studies show that men too suffer from stress, anxiety, depression, and feelings of inadequacy, particularly when they feel pressured by society to conform to traditional gender ideals of motherhood.

2.4.1 Gender Roles and Infertility

Both genders play an important role in impacting couples experiences of infertility. Females may face more societal expectations regarding motherhood, leading to feelings of shame and guilt when unable to conceive (Domar et al., 2015). Traditional gender norms perpetuate the stigma surrounding male infertility, impacting men's mental health and selfesteem (Domar et al., 2018).

If a man is unable to conceive a woman, then he is considered as infertile, it’s reported that about 20% of cases of infertility are entirely the male's fault, while he influences another 30% to 40%. Both partners should be evaluated for infertility and treated jointly because male and female reasons frequently coexist (Leslie et al., 2024).

A technique called as sperm morphology is used to detect, sometimes sperm’s motility and count is fine, but some sperms can eventually die when they enter in a woman’s womb due to defects it can result into zero pregnancies. Research shows that evaluating sperm morphology helps doctors pick the best treatment plans by giving them important information about underlying reproductive health problems. A technique sperm morphology analysis is an important for diagnoses for males fertility evaluations reports , as male infertility continues to be a big concern all over the world (Parasite., 2007).

The results show the main cause of infertility among men, there are some environmental factors like exposure to chemicals and toxins, abnormalities in hormones, and genetic issues like deletions in Y chromosome. It also emphasizes how choices in lifestyle impacts for example smoking, drinking, and obesity impact fertility of men in higher ratio.

(Babakhanzadeh et al., 2020).

2.4.2 Societal Pressures and Stigma

Labels are given to infertile people varies in many cultures, it is the cause of criticism and discrimination from society such individuals (Rooney & Domar, 2016). Society mostly judges people saying that infertility is a curse and the person who has it considered as a bad impact on others that why people hide their diseases, repressing such thoughts can be underlying cause for unresolved issues (Gameiro et al., 2013).

Studies have proved that the desire for motherhood increases by societal pressures and norms, and for many women, it becomes a priority goal and a source of happiness (Carasevici et al., 2018; Demyttenaere et al., 2016). But if a woman is infertile, if she fails to become a mother it can cause distress (Verhaak et al., 2007). Infertility-related disorder is often increased by the societal pressure to become a parent soon, which results in feelings of worthlessness and unsatisfaction (Rooney & Domar, 2016).

In African culture if a women is infertile she has to face so many emotional psychological, social and challenges. A study explored the factors related to infertile women in various African countries in a qualitative method. The study states that how infertility is frequently viewed as a social failure, which can result in stigma, discrimination, and even failed marriages. Women's emotional anguish and mental health issues are sometimes made worse by the criticism they receive from their families and communities. Mostly the society says a lot about infertile women majorly, putting blame on women solely. According to the survey, women have different coping strategies; some turn to conventional or religious remedies, while others pursue medical treatments. Support from infertility support groups, medical professionals, and family members are a significant component in reducing the psychological burden. According to the study, culturally aware treatments are necessary to offer emotional and psychological support for women (Tanywe et al., 2018).

2.5 Marital Relationships and Infertility

Infertility can strain marital relationships, leading to communication barriers, conflicts, and diminished intimacy (Peterson et al., 2014). The shared experience of infertility can either strengthen or weaken couples' bonds, depending on their coping strategies and support systems (Volgsten et al., 2010).

Two hundred twelve infertile couples receiving assisted reproductive treatment participated in a cross-sectional study to investigate the relationship between females coping mechanisms and psychological symptoms. According to the study, women were more prone to maladaptive coping mechanisms as compared to males; such as self-blame, other-blame, and self centered rumination. Women facing higher levels of stress had a positive correlation with maladaptive behaviors; results show this these behaviors were contagious among the couples (Kazemi et al., 2020).

Sexual dysfunction can become a hurdle in a marriage. A study and meta-analysis" looks into how common sexual dysfunction is among infertile women. It shows that a variety of sexual dysfunctions, such as decreased sexual desire, less arousal , and general satisfaction, are directly linked to infertility. Two psychiatric disorders that greatly exacerbate these problems are anxiety and depression. The study suggests that treating infertility and sexual dysfunction together is crucial to improving overall health (Mendonça et al., 2017).

2.5.1 Impact of Infertility on Marital Satisfaction

Infertility often impacts marital satisfaction, with couples experiencing low mood, sadness and they are dissatisfied as compared to fertile group (Domar et al., 2015). The stress of infertility can strain communication and emotional support within relationships, leading to marital discord (Peterson & Newton, 2014).

A scoping review was proposed by Salie et al. (2021) to investigate the psychosocial aspects of infertility in developing nations, focusing on the social, emotional, and cultural obstacles that impacted persons must overcome. This study is critical because, in these areas, infertility is frequently linked to psychological suffering, marital instability, and stigma; yet, few studies fully address these problems.

The impact of stress associated with infertility on marital happiness among infertile individuals in Pakistan is examined in the study by Tabassum, Sadia, Huda, and Khan (2023). It’s proven that sexual disturbance can cause significant distress among couples and can lead to marital discord. Lack of communication, lack of bond can arise problems like stress, anxiety. The study showed that while maladaptive coping techniques like avoidance and blame made things worse, adaptive coping mechanisms like getting professional treatment and providing emotional support were

linked to improved marriage outcomes. It has been analysed that increased social support from the family members , friends, and medical experts can reduce stress and can increase marital satisfaction. Overall, the research highlights that everyone needs to provide psychological support to infertile individuals (Tabassum et al., 2023). Sexual dysfunction and infertility are closely related conditions that may exacerbate one another. Higher degrees of sexual dissatisfaction, such as decreased sexual arousal, desires and satisfaction, are frequently reported by infertile individuals. On the other hand, because it lowers the frequency of sexual activity and degrades sperm quality, sexual dysfunction can lead to infertility. Sexual dysfunction can impact one's psychosomatic health; Sexual performance can also be hampered by psychological conditions, and including stress, worry, and depression, which are frequently linked to infertility. Treating sexual dysfunction and infertility at the same time is essential for effective therapy and improving the lives of individuals affected (Starc, 2019).

The intricate and multidimensional relationship between low libido and infertility impacts both men and women. Sexual dysfunctions, includes low libido, can affect fertility, it can cause impairment to sexual activity, according to study by Ranjith Ramasamy and colleagues that was published in Sexual Medicine Reviews. Many disorders for instance erectile dysfunction and ejaculatory disorders are most common disorders in males, but genito-pelvic pain/penetration disorder and diminished sexual desire are disordering that women may face. The analysis states how the treatment are effective for sexual dysfunctions and infertility requires addressing both medical and behavioural issues (Berger et al., 2016). A meta-analysis from 2023 explores how the substantial influence of infertility on marital relationships and sexual dysfunction. The study emphasizes how sexual issues, such as erectile dysfunction, decreased libido, and pain during intercourse, are more common among infertile persons (Leeners et al., 2022).

2.5.2 Coping Strategies in Maintaining Marital Harmony

Couples adopt various coping techniques to face the challenges for infertility and maintain marital harmony. The techniques include emotion-focused coping, problem-focused coping, meaning-focused coping strategy, and support-seeking coping are common approaches used to manage stress and uncertainty (Folkman & Moskowitz, 2004).

A research was conducted by Baakeleng et al .(2023) on finding the reasons behind infertility among women ,In addition to physiological issues, including infections and hormone imbalances, the study highlighted that traditional healers attribute infertility to spiritual imbalances, ancestral discontent, and environmental reasons. These results highlight the necessity of treating infertility in a culturally sensitive manner that integrates conventional and contemporary medical procedures to assist impacted women better. In most cases the women are targeted so it's necessary to find scientific reasons.

The link between female infertility and spousal abuse, as well as the coping mechanisms used by these women. Some cultures have particular rules where childbearing is viewed as a central responsibility only for females, infertility—which is commonly stated as the inability to procreate after a year of consistent, sexual activity—is commonly attributed to women. This social pressure can lead to psychological suffering, violence and stigma. According to the study, emotional, verbal, financial, and sexual abuse is among the many types of spousal violence that infertile women encounter. The degree of spousal violence experienced was substantially correlated with factors like education level, family type, residence, and the cause of infertility. The study also looked at the coping mechanisms used by infertile women. Hope, marital relationships, personal well-being, looking for social support, acceptance, and spirituality were the most commonly employed tactics. However, as the degree of marital violence rose, the study found that the usage of constructive coping mechanisms significantly decreased. Reduced coping scores were more common among infertile women who experienced higher levels of marital violence. The study highlights how important it is for medical personnel to understand how infertility and marital violence are related while providing care for infertile couples. It promotes supporting women and promoting the application of constructive coping mechanisms through tried-and-true techniques (Süzer Özkan, 2021).

The economic analyses related to fertility treatments focus on cost-effectiveness methods and willingness-to-pay (WTP) levels. The study reveals important differences in WTP thresholds between researches, there can have difference of opinion among patients regarding the expenses they have to bear for getting pregnant or giving birth. Furthermore, methodological mistakes in the cost-effectiveness calculation are found by the analysis, making cross-study comparisons

become more difficult. There are different studies which employs several outcome measures, which makes estimating economic worth much tougher. This can help to develop effectiveness of treatments and intervention plans (Fenwick et al., 2023).

2.6 Coping Mechanisms and Strategies

Coping techniques can be helpful and it can play a very important role in individuals' acceptance to infertility. Different strategies can prevent distress, while emotion-focused coping helps to manage emotional stress (Zurlo et al., 2020). Meaning-focused coping seeks to find purpose and understanding in the infertility experience, while support-seeking coping involves seeking assistance from others for emotional support (Folkman & Moskowitz, 2004

A study explored, psychological well-being on infertile couples is more effected by their coping techniques, the mediator was spouse support system and coping technique. According to a study by Reisi et al. (2023), coping mechanisms have a greater impact on females psychological health, but their spouse's coping mechanism acts as a mediator. While maladaptive strategies can cause extreme stress and emotional load, adaptive coping techniques help spouses lessen the psychological suffering that women endure daily. The trauma caused by Infertility issues should be treated as a shared problem rather than a personal battle of that woman, according to the study, which emphasizes the value of partner support. These results provide that to how overall mental health outcomes can be improved; psychological interventions should focus more on strengthening couple-based coping techniques in addition to individuals.

Many factors impacts therapeutic process so psychosocial characteristics varies in both genders, men and women seeking infertility therapy were examined who found that both sexes had severe damage to their psychological health. According to the research, loneliness, anxiety despair, and feelings of inadequacy were common among those receiving therapy for infertility The researchers focus on the need for specialized psychological support to help couples cope with the emotional challenges of infertility they are facing , and they underline that effective counselling should consider the distinct coping mechanisms of each gender. Males conceal their feelings,

but women show emotional pain, both genders has different ways to cope for stress. This illustrates the need of treating infertility while addressing these mental health concerns. (Wischmann et al., 2009).

Aflakseir and Zarei (2013) investigated the connection between coping mechanisms and stress linked to infertility in Iranian women receiving reproductive therapy in Shiraz. Using a convenience sample technique, the researchers selected 120 infertile women from different Shiraz infertility clinics. Ways of Coping Scale was filled by participants, which evaluates four coping mechanisms—passive-avoidance, active-confronting, active-avoidance, and meaning-based coping—and the Infertility Problem Stress Inventory.

The results showed that participants' most significant scores were on passive-avoidance coping techniques, followed by active-avoidance coping, meaning-based coping, and active confronting coping. Meaning-based coping (β=-0.50, $p<0.001$) was a significant predictor of lower infertility stress, whereas Regression analysis showed that tremendous infertility stress was significantly predicted by active-avoidance coping (β=0.35, $p<0.001$). The most reliable indicator of reduced infertility stress was meaning-based coping. The study found that women who used active avoidance coping techniques had higher levels of stress, whereas those who felt their infertility had significance had lower levels. To reduce the stress associated with infertility in women receiving reproductive treatments, these findings highlight the significance of encouraging adaptive coping techniques, especially meaning-based coping.

There is a behavioral treatment called as Mind/Body Program for Infertility problems, It is a for psychological issues associated with infertility. The research, which focused on, cognitive restructuring, social support and the relaxation response by the participants, It involved fifty-four women. It was demonstrated that the people's levels of worry, hopelessness, sadness and fatigue had considerably dropped. A considerable proportion of women also became pregnant during or soon after the completion program, indicating that stress-reduction behavioural treatments may have a favourable outcome on infertility issues . The mind/body approaches are into conventional medical therapies for infertility can be beneficial, according to the authors' conclusion (Domar et al., 1990).

2.6.1 Cultural barriers in Coping Strategies

There are different cultural norms and values which influence individuals' coping mechanisms and perceptions regarding infertility. Romania has collectivist attitude for example, religious beliefs and family values plays a important role in shaping coping mechanisms, with individuals turning to divinity for emotional support (Drosdzol & Skrzypulec, 2009). However, negative things can affect coping strategies and exacerbate psychological distress, highlighting the complexity of cultural influences on coping strategies (Zurlo et al., 2020).

2.6.2 Pakistani Cultural Context and Infertility

Men influence in decision making, rules, getting liberty in every aspect of life is totally given to men only but females are considered as taking responsibility of house hold activities and motherhood only in most regions of Pakistan ,and societal expectations regarding parenthood contribute to the stigma surrounding female's infertility only .No one can question man's infertility people think it's impossible for a man to become infertile (Carasevici et al., 2018). Women facing infertility may experience heightened social pressure and stigma, impacting their mental wellbeing and coping strategies, It can be said that women are titled as infertile if she can't reproduce (Cousineau & Domar, 2018).

People have this belief that woman are infertile only in Pakistani society, with affected individuals facing social criticism and discrimination (Repokari et al., 2007). Cultural beliefs are shaping fertility treatments and traditional remedies are more promoted , this contributes to the reluctance to seek medical intervention and proper counseling for infertility(Crawford & Hammarberg, 2017).

A sizable section of the populace ignores male infertility as a contributing factor and maintains that infertility is only caused by female reproductive problems. Despite scientific evidence to the contrary, a large number of people (53%) believe that there are many birth controlling ways; oral contraceptive pills (OCPs) and intrauterine contraceptive devices (IUCDs) cause irreversible infertility. Some people think that supernatural factors like demonic spirits, black magic, or divine punishment are to blame for infertility. It's usual to turn to religious leaders and faith healers for

assistance. There is a persistent misperception that only women are impacted by delayed childbearing, even though it can lower reproductive potential for both men and women. A common misconception is that a guy is fertile if he can get an erection, ignoring the importance of sperm motility, morphology, and count in conception. There are myths that infertility can be immediately cured by consuming particular foods, herbal remedies, or traditional medicine (Ali et al., 2011).

The general knowledge of infertility reasons among outpatients at Civil Hospital Karachi were evaluated From June to November 2019, the cross-sectional study assessed participants' understanding of topics like smoking, healthy living, contraception, and genital tract infections using a questionnaire given during interviews and based on the Cardiff Fertility Knowledge Scale (CFKS). According to the results, almost 50% of the participants did not think that males and females are equally responsible for infertility. A sizable percentage (65.6%) also felt that using IUDs causes infertility, and 55.9% believed that a male getting an erection is a sign of fertility.

The study found that the general public lacked sufficient information about the causes of infertility. The study concluded majority of people have lack of awreness regarding infertility issues (Ahmed et al., 2020).

One study that examined these issues was "A Case Study of Infertile Women in Khyber Pakhtunkhwa-Pakistan." A study was conducted on 400 women who were seeking treatment at several public and private healthcare facilities in the area for primary and secondary infertility, Purposive sampling method and and snowball technique was used by the researchers. The main issue and causal factor were gynecological problems in infertility in the study, which frequently resulted in miscarriages and secondary infertility. Infertility has been proven to strain social and familial bond, causing social isolation and mental problems in those women who are experiencing it. In order to improve the overall quality of life, these insights helps the need for comprehensive healthcare treatments that can address both the psychosocial and medical components of infertility (Ullah , Ahsraf and Nisar ; 2021).

The repercussions of infertility in developing countries are examined by Rouchou (2013), who examines the enormous social, financial, and psychological issues and expenses incurred by individuals who are affected. In addition to being a

medical condition, infertility is a highly stigmatized problem, particularly in societies where having children is closely linked to identity and social approval also it shows the worth of a human.People only focus on the criticism not the underlying cause for the infertility problem. Most underdeveloped countries females are frequently the ones who suffer the most from the stigma associated with infertility, including marital instability, emotional suffering, , social rejection, and even domestic violence. An inability to reproduce might worsen the psychological effects of infertility by causing extreme worry and melancholy among females. Furthermore, the study states the financial challenges that come with infertility. Couples are forced to employ unapproved and sometimes unsafe ways since infertility treatments are costly and not budget friendly unavailable in many low-resource countries.

Poor infrastructure for reproductive healthcare and mental health support increases the problem and leaves many couples without helpful coping mechanisms. To lessen the effects of infertility, a multidisciplinary approach involving medical, psychological, and societal support is needed in developing countries.

Nearly 248.2 million people in Pakistan are still infertile due to a lack of awareness about various reproductive procedures. Because of cultural restrictions, in vitro fertilization, or IVF, is seen as a social taboo. Numerous individuals and couples are discouraged from seeking treatment due to societal pressures and false information on assisted reproductive technology, or ART. Because IVF treatments are mostly costly, a sizable section of the population cannot afford them. It has also not promising results in some cases due to different factors, Governmental actions and extensive public education are required to lower the cost of infertility treatments. is required in order to dispel myths about them, and efforts are made to include cultural and religious perspectives to reduce stigma (Khabir et al., 2024).

2.7 Existing Research Gaps

There are still a number of gap in literature for our understanding of the psychological effects of infertility, despite advancements. The psychosocial experiences of infertile people require qualitative investigation; especially in areas where specialist support services are not being present (Tasçi et al., 2008). More research is necessary to provide culturally sensitive interventions about the cultural

differences in coping mechanisms and societal views of infertility. (Kiani et al., 2011). This study will systematically show the corpus of existing literature to identify gaps and offer recommendations for medical interventions that incorporate psychological support that is appropriate for the patient's culture. These findings will contribute to the development of comprehensive models of infertility management that consider the physiological and psychological issues that infertile individuals face. Infertility has significant social as well as personal repercussions in Pakistan due to societal and cultural norms that place a high value on motherhood. Stigma around infertility frequently leads to psychological suffering, social exclusion, and marital problems. Given this, it's critical to examine how both men and women deal with infertility, the psychological effects it has on their well-being, and the social limitations they encounter. By analysing these links, the research can assist in many infertile people look for non-medical alternatives before pursuing clinical therapies because of a lack of knowledge and the shame associated with it. The typical methods consist of visiting peer babas, trying herbal and unani medicines without knowing the side effects. Mostly women are divorced if they can't conceive or bear a boy baby for their husband. In Pakistan men are reluctant to visit clinics they can't imagine themselves as infertile, so they always blame their wives to seek medical treatment. In this way many fertile women are blamed for not having a child and living with a toxic spouse who's hiding his medical conditions regarding infertility. In this scenario this study can help and bring awareness among Pakistani population.

Some couples who don't have children can develop aggression among other children, crying spells frequently is seen among women especially. Mostly they can develop psychological illness obsessive compulsive disorder (OCD), loneliness can lead towards depressive mood.

Infertility can have a negative impact on cognitions and mental processing.

2.8 Conclusion

The literature review highlights the complex interplay of psychological, social, and cultural factors in shaping individuals' experiences of infertility. Understanding the psychosocial impacts of infertility is essential for developing culturally sensitive

interventions and support services to address the needs of affected individuals and couples.

Although in the recent years much interest has been developed in addressing the causes of infertility, but in Pakistan no such efforts have been made to see the emotional along with psychosocial impacts on couples with infertility. The present study seeks to contribute to this body of knowledge by exploring the psycho-social impacts of infertility among women in a patriarchal setting and examining the cultural and societal factors shaping perceptions of infertility within the context of Pakistani culture. Women who are stressed or anxious may find it difficult to relate positively with their spouses, which can result in arguments and emotional disengagement. Distress can also lead to decreased intimacy and support, which erodes the marriage's relationship even more. The development of more effective treatments for male infertility depends on ongoing studies into the genetic, environmental, and lifestyle variables that contribute to this condition.

Infertility can be caused by difference in thinking, perception of one’s own sexual preferences which is known as sexual orientation. If a conflict arises in sexual preference there will be conflict in marital relationship. If one partner is homo and other partner is hetro regardless of there genders so it can cause emotional problems, another disadvantage of matchless marriages is the possibility of emotional discomfort and identity confusion. There are trends of lesbian ,gay,bisexual.Transgender and Queer (LGBTQ) partner may have internalized beliefs and ongoing internal conflicts it can result in feelings of suppression, inauthenticity, or unmet aspirations. The straight partner, on the other hand, may feel insecure, question their spouse's fidelity, or have trouble figuring out who their partner is can cause a stress and loneliness.

Marital dissatisfaction can also result from mismatched sexual and emotional demands. Because they do not feel attracted to or connected to their spouse, the gay partner may feel unfulfilled, while the straight partner may feel hatred feelings and less worth towards themselves. Emotional disengagement, frustration, or even adultery may result from this imbalance. These marriages may become even more complicated because of infertility. The stress of infertility may intensify pre-existing difficulties if the couple is unable to conceive, especially if the queer partner's sexual orientation makes physical intimacy difficult. Another problem that can cause

infertility issue is low libido in mismatched marriages; lack of sexual desire can harm one's marriage which can lead towards infidelity, stress and depression. In Pakistan most people are having this issue which is still not discussed properly. Sometimes conceiving a baby can be a psychological problem rather than biological or physical problem. We live in 21st century still forced marriages and mismatched marriages happen across Pakistan. It can cause extreme stress to the couple which can result in low sexual desires and less attraction within their partners. The lack of attraction can directly affect both partners' hormones. Still visiting a sex therapist is known as social taboo.

Forced abortions by partners and husbands can lead towards infertility. This can also affect on health of a female. Repeatedly forced abortions can damage psychological health and can lead towards marital discord. In most cases men wants to have a baby boy at first just to prove his masculinity if a wife fails to deliver a baby boy or a heir to her husband she has to face so many issues in her life, increased domestic violence, psychological torcher and verbal abuse. All these things are the causes of psychological disorders. In some cases men even give divorce to his wife for not having baby boy, physical and mental torcher can also lead towards infertility. That's why it's really important to make a woman happy for conceiving if her mind and body is healthy she can bear a healthy child. In western culture some women prefer to stay single, and they perform abortion with their own choices. So emotional attachment to children very different from culture to culture. We believe that the findings of this research study will help to design the better support services for the women seeking infertility treatment.

CHAPTER 3: THEORATICAL FRAMEWORK

The central focus of the present study is to examine the psychological and social impact of infertility on married couples in Pakistan considering societal and cultural context influencing coping. The study specifically targeted women and men who had experienced primary or secondary infertility and were actively seeking treatment at public and private hospitals or clinics in Pakistan. The aim is to gather insights into how infertility influenced their social lives, relationships, and overall well-being. Since it was not possible to determine the precise number of infertile women within the study region, the research used a purposive sampling method combined with snowball sampling techniques to identify participants. This approach allowed the researchers to effectively locate couples who fit the criteria of having experienced infertility and who were currently pursuing treatment for their condition. A total of 10 couples participated in the study. These couples were all undergoing or have consulted to have treatment for infertility at various healthcare facilities, such as private and public hospitals or clinics in the area. The study adopted a qualitative research approach, where in-depth interviews were conducted with participants. The interviews were held either online (in case of the participating couple not available in researcher's city Islamabad) or in person to ensure they felt comfortable and able to speak openly about their experiences.

The study is based on theoretical framework that combines Lazarus and Folkman's Stress and Coping Theory (1984) with the Biopsychosocial Model.

3.1 Biopsychosocial model:

The Biopsychosocial Model, originally proposed by Engel, provides a holistic view of health by emphasizing that biological, psychological, and social factors are interconnected in determining one's health. The biopsychosocial model provides a comprehensive understanding of how infertility is experienced by infertile couple, especially in a sociocultural context where family structures, societal expectations, and social norms play significant roles. Infertility can have profound effects not just on the individuals experiencing it but also on the broader family unit. Women struggling with infertility may feel isolated, frustrated, and stigmatized, particularly in cultures where

having children is seen as a critical aspect of marriage and social status. In such societies, the inability to conceive is often viewed as a failure, and women may be blamed for their infertility, leading to feelings of inadequacy, shame, and social exclusion. These experiences of social stigma and marginalization can be emotionally distressing and can have long-lasting effects on a woman's self-esteem and mental health. In addition to the emotional toll, infertility can also strain relationships, particularly between married couples. The stress of infertility may lead to marital tension, as partners may react differently to the situation. While some couples may grow closer, others may experience conflict or even separation due to the emotional strain. The inability to conceive can create a sense of failure in the relationship, as both partners may struggle with feelings of guilt, inadequacy, or resentment. For women, the pressure to conceive can sometimes result in a sense of being defined by their reproductive capabilities, leading to a loss of personal identity and autonomy.

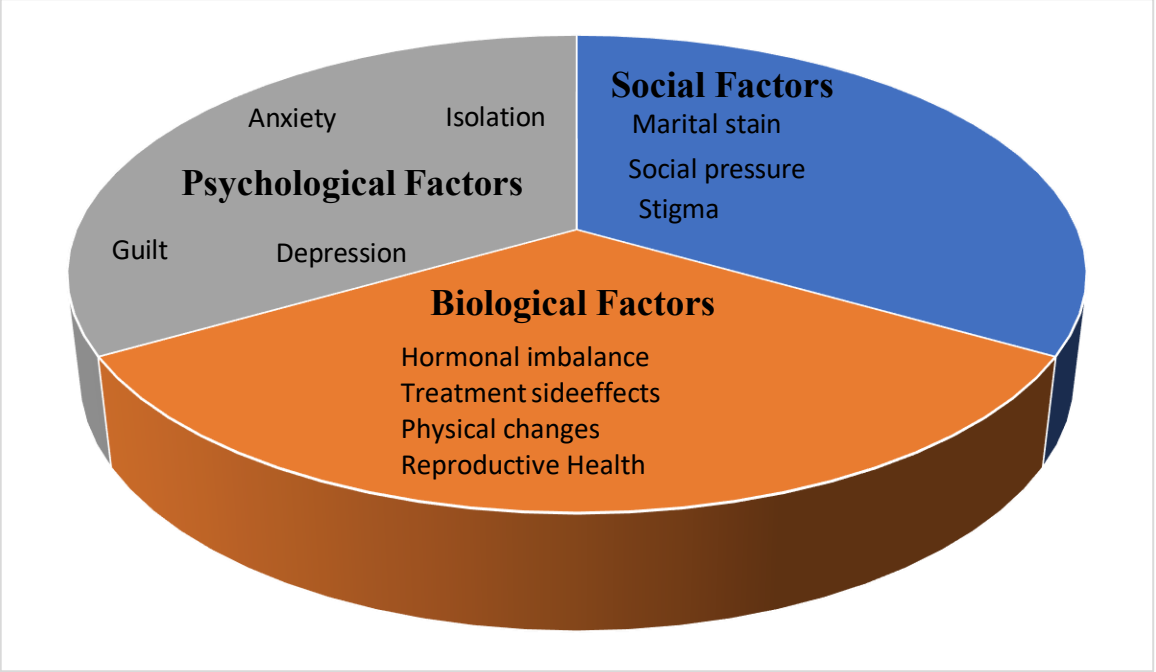

Figure. 3.1 The Bio psychosocial conceptual framework, based on Zurlo et al. (2020)

On a broader level, infertility can impact couple's social lives, as they may face exclusion from social activities and events that celebrate motherhood and childbearing. This exclusion can be particularly challenging in cultures where a woman's identity is closely linked to her role as a mother. Infertility can create a sense of social

isolation, as women may withdraw from social circles where discussions about children and family life are dominant. This withdrawal can further exacerbate feelings of loneliness and alienation, contributing to increased psychological distress. The biopsychosocial model also underscores the importance of considering psychological and emotional factors in understanding the experience of infertility.

The Biopsychosocial model provides a comprehensive framework for understanding the various coping strategies adopted by infertile couples. From a biological perspective, coping involves pursuing medical interventions such as hormonal treatments or assisted reproductive technologies (ARTs) to address the physical causes of infertility. Psychologically, individuals may rely on emotion-focused strategies including prayer, acceptance, and self-reflection to manage the emotional distress associated with infertility. On the social level, support from family, spouses, and the wider community plays a crucial role in helping individuals navigate the societal pressures and stigma that often accompany infertility. This multidimensional approach emphasizes that coping is not limited to medical solutions but is deeply intertwined with emotional resilience and social support systems.

The Biopsychosocial model also explains how couples/individuals **cope.**

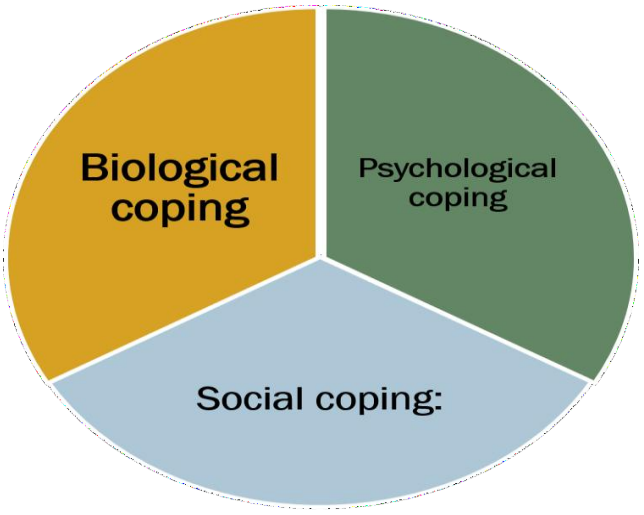

Figure. 3.2 The Bio psychosocial conceptual coping framework.

- **Biological coping:** Seeking medical treatment, Arts (Assisted Reproductive Technologies)
- **Psychological coping:** Emotion-focused strategies like prayer, self-reflection, acceptance
- **Social coping:** Seeking support from spouses, family, and community

3.2 Lazarus and Folkman's Stress and Coping Theory:

Lazarus and Folkman's theory conceptualizes stress as a dynamic process involving an individual's cognitive appraisal of a situation and the coping strategies employed to manage perceived demands (Lazarus & Folkman, 1984).

This study integrates Lazarus and Folkman's (1984) Stress and Coping Theory, which recognize stress as threat. This framework is particularly appropriate for understanding how couples manage the stress which in this study is recognized as the psychological aspects of diagnosis and treatment and social factors such as partner's interpersonal relation, families and social pressure associated with infertility which proceeds towards two main factors as described.

i. **Cognitive Appraisal:** Infertility is appraised by individuals as a significant life stressor, perceived either as a threat to their identity, a loss of expected life trajectory, or a challenge that must be overcome. These appraisals influence emotional and behavioural responses.

ii. **Coping Mechanisms:** Coping strategies are categorized into:

- **Problem-focused coping**: Seeking medical treatment, acquiring information, making lifestyle changes.
- **Emotion-focused coping**: Engaging in denial, avoidance, seeking emotional support, religious or spiritual coping, and cognitive reframing.

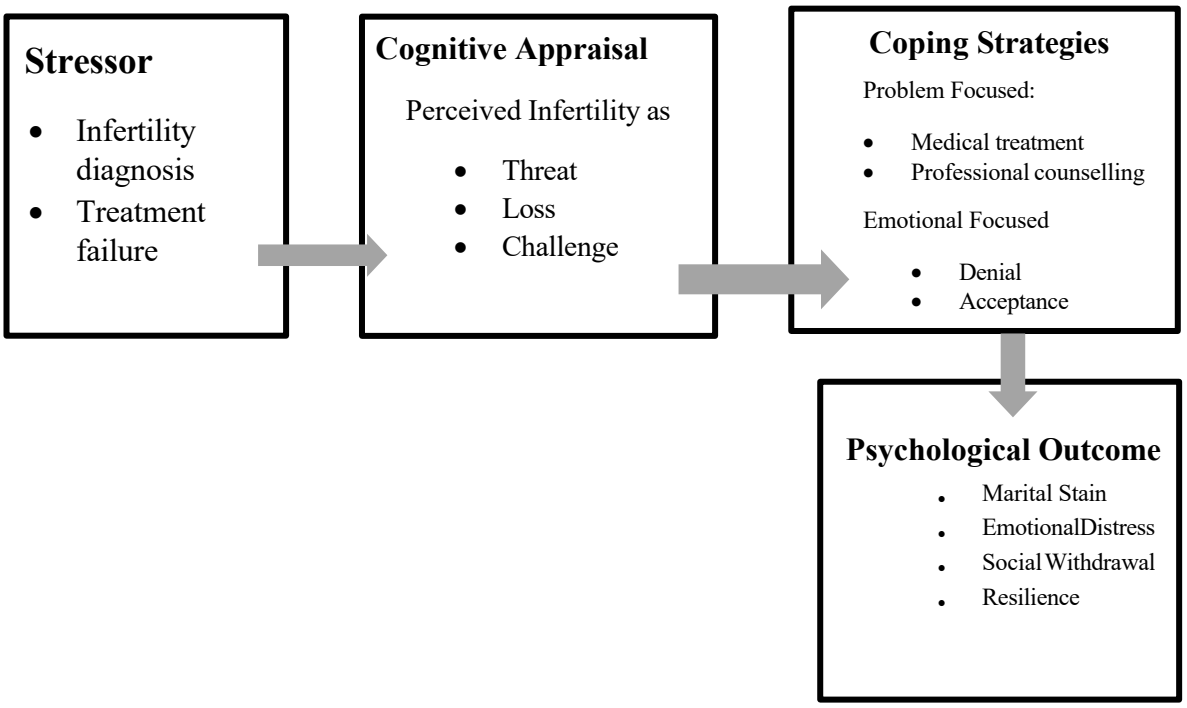

Figure 3.3: Lazarus and Folkman's Stress and Coping Theory

CHAPTER 4: RESEARCH DESIGN AND METHODOLOGY

Chapter three outlines the research methodology that constructs this study. This chapter will look into the research design and methodology, necessary for understanding how the data collection was done, analysis was made, and interpretation was built. It also aims to provide a vivid and systematic approach to conduct the research, making sure that the findings in this study are robust, reliable, and capable of contributing significantly to the psycho-social impacts and coping strategies among couples with infertility. The detailed methodological framework in this chapter will set the groundwork for investigating the psycho-social impacts coping strategies among couples with infertility, which is a pivotal aspect of this research.

4.1 Research Design

This study follows an exploratory research design using a qualitative research approach that relies on concepts from interpretive social science which lays its foundation on description and understanding of the “actual human interactions, meanings and processes that create the real-life organizational settings” (Gephart, 2004, p. 455). In qualitative research, the primary goal is to explore the social and cultural context of the study area. Therefore, data analysis takes place in natural circumstances. This type of research provides a wide margin of flexibility to help the researcher focus on data best suited for the study throughout the process (Tenny et al., 2022). Moreover, qualitative research integrates the development of research questions, determining the relevant research data, collection of identified data and writing of findings of collected data which involves describing patterns, themes, or categories that emerged from the data (Barroga & Matanguihan, 2022). The need for qualitative research design is due to this study’s requirements as we aim to create an in-depth analysis. Moreover, the research questions in the study are well suited for a qualitative approach for effective analysis.

4.2 Sampling and Sample Size

The respondents for this research study were sampled using a purposive sampling strategy. The reason for utilizing the purposive sampling is based on the idea that, given the aims and objectives of the research, specific kinds of people may have different and crucial views about the issues at question and thus require to be included in the sample (Campbell et al., 2020). The reason is to move away from any random form of sampling and gather essential information that other methods cannot obtain (Nyimbili & Nyimbili, 2024). The basis of purposive sampling was the researcher's intent to look at the field of study from the perspective of infertile couples thus the target was to include couples that have been diagnosed with infertility either primary or secondary into the study. The criteria for sample selection was that the couple should be diagnosed with infertility (as defined by WHO) for more than six months to be included in the study as the focus was also to analyze their coping strategies. A sample size of ten (10) couples diagnosed with infertility including both types of primary and secondary infertility were recruited on purpose for the study. Data was collected between 20 May 2024 till 15 July 2024. It took a longer duration as many couples were unavailable on the said dates or the male participants took longer to give time for the interview.

Furthermore, before data collection, the researcher intended to sample 15 infertile couples. 7 respondents decided to opt out of the study and therefore, we were left with a sample of 23 respondents out of which 20 were selected for the interviews. A sample of 20 was considered sufficient because it has formerly been endorsed that qualitative research requires a sample size of a minimum of 12 Respondents to reach saturation point (Braun, 2016; Fugard, 2015). However, the researcher reached a saturation point on a sample of 9 respondents. Even after reaching a saturation point, collecting data from few more respondents can be beneficial to reduce biases, enhance the validity of recognized themes, making them more robust and defensible when presenting or publishing the results (Leung, 2015). Purpose of selecting 10 couples (n = 20) was to ensure rich data analysis. Therefore, infertile couples i.e., 5 primary and 5 secondary couples were interviewed for this study. (n = 20)

The study population of the research were all the infertile couples. All the couples included in the study have been visited or were still consulting a fertility clinic facilitated by tertiary healthcare system in their respective regions. Although, Couples diagnosed with infertility for a year or less were excluded from the sample. The couples were not made a part of the study to meet the infertility operational definition which describes infertility as the inability to achieve pregnancy for a year despite trying, as this was the main focus of research. The age range of the participants were from 27 to 43 years (including both male and female participants.

4.2.1 Inclusion Criteria:

The inclusion criteria for the sample required that the couple must have been diagnosed with infertility for more than six months. Participants were eligible if they were currently undergoing any form of medical treatment for infertility or were in the process of planning to begin treatment. Importantly, the specific diagnosis — whether attributed to the male or female partner — did not influence the selection process. This inclusive approach ensured a more comprehensive understanding of the psycho-social impacts and coping strategies among couples facing infertility, regardless of the underlying medical cause.

4.3 Data Collection

Interviews are the most used data gathering technique in qualitative research. The research method employed for this study was in-depth semi-structured interviews. For this study, semi-structured interviews were utilized as they require the interviewer to have a preprepared list of questions and topics, which can be asked in various ways (Creswell & Creswell, 2018). Through semi-structured interviews, the responsiveness of the interview can be increased by asking probing questions while keeping the interview on track, increasing the reliability and credibility of the data (Mashuri et al., 2022). The respondents of this research study were infertile couples; therefore, extracting information from a limited research method – for instance, a structured questionnaire or close-ended interviews – could not result in comprehensive and multidimensional results. In-depth interviews require using prompts to discover new insights from the answer presented by interviewee/s. A few researchers have explained

the role of in-depth interviews by stating that their role is to capture people's experiences "without imposing any apriori categorization that may limit the field of investigation" (Politz, 2024). Therefore, an indepth semi-structured interview allowed the researcher to gain insight into the infertile couples' perceptions about factors that contribute significantly towards their psycho-social health and coping strategies.

Thus, twenty in-depth semi-structured interviews were conducted with the respondents against **5** emerging themes identified from primary data. An atmosphere of trust was mandatory to be created before getting into a formal research-related conversation.

The study follows a semi-structured interview guide was designed with flexibility according to individual's experiences, decisions and responses to collect data from participants. It was encouraged to feel free and talk about the issue by participants as much as possible. The interviews varied in time between 25 to 40 minutes in duration. All the responses during the interview were audio recorded with consent for the purpose of being transcribed and analysis later. In addition, participants exhibiting emotions and gestures along with the answers were also observed, noted and incorporated in the transcribed report. These observed non-verbal cues would allow to capture participant's psychological emotions and acknowledge the context of their current psychological state regarding the issue more clearly. Furthermore, the recorded audios were first translated into English, for the responses expressed in native language i.e. (URDU) by the participants. Following that, participant's translated verbatim English was transcribed, to accurately convey the participant's responses as recorded during the interview. Interview data was collected in Urdu and English to comprehend the issue better.

The locale of this research study was from all over Pakistan.

4.4 Data Analysis

For qualitative research, Thematic data analysis is used as research method to identify and interpret the emerging themes and patterns flowing the data set. This type of analysis results in deeper comprehension and clear understanding to the issue. However, researchers must be

critically aware of not allowing their own perceptions and schemas to interfere with the identification of key themes (Naeem et al., 2023).

Thematic analysis is chosen primarily because it aligns well with the study's research objectives and exploratory aspect. The research explored factors that lead significantly to the psycho-social impacts and coping strategies among couples with infertility. Thematic analysis was used to identify the main themes and patterns in the interview material. The data is organized into themes which allows researchers to understand the topic better and explore the complexities of the respondents' perspectives (Kallio et al., 2016).

Moreover, the difference between thematic analysis and other qualitative methods, like phenomenological analysis is that the former does not apply a specific theoretical framework or predetermined ideas to the data. Instead, the themes are allowed to arise naturally from the data while ensuring that the analysis is rooted in the respondents' perspectives and experiences (Wiltshire, 2021). In this study, thematic analysis was used to organize and evaluate data from 20 respondents.

The thematic analysis in qualitative research involves 6 steps of coding proposed by Braun and Clarke in 2006 are data collection, initial coding, finding themes, reviewing themes, naming themes, and writing the report (Clarke & Braun, 2013). Figure 3.2. explains the steps used in data collection and analysis by using Clarke and Braun's 6 steps of thematic analysis. By following these steps, raw qualitative data can be transformed into insightful themes for further analysis.

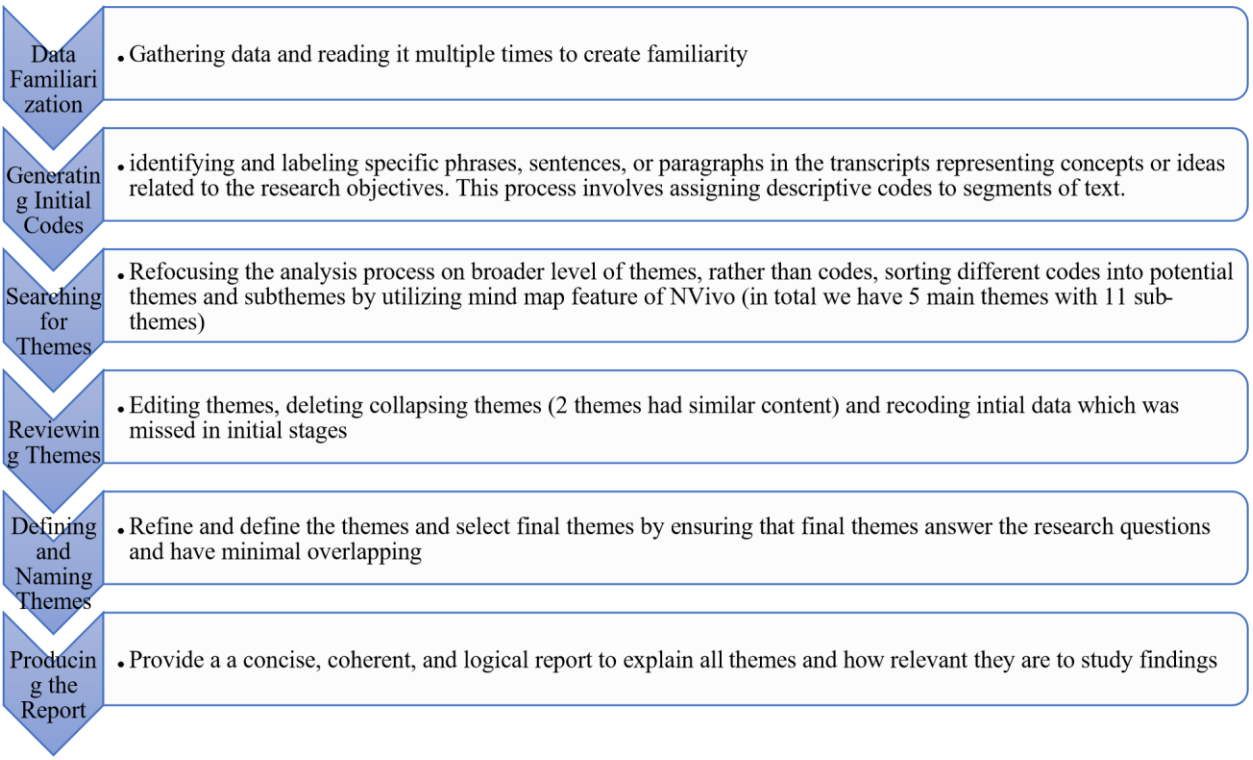

Figure 4.1 Thematic analysis created by using steps adapted from Braun and Clarke, 2006

1. Data Collection

The first step of thematic analysis is data collection. This phase involves gathering the raw materials for analysis—this can include interviews, surveys, focus groups, or any other form of qualitative data. Data collection is crucial, as the quality and depth of the data collected will shape the entire research process.

In qualitative research, it's important to ensure that the data is rich, detailed, and relevant to the research question. The aim of this process is to gather data that will provide insight into participants' experiences, perspectives, and behaviors.

During this phase, it is also important to consider ethical guidelines. Informed consent must be obtained from participants, and confidentiality should be maintained throughout the process. It was also considered that data collection is done systematically to maintain consistency, which will help improve the credibility and trustworthiness of the findings.

2. Initial Coding

The second step is initial coding, which is the process of organizing the raw data into meaningful segments. This step involves systematically examining the collected data to identify patterns, concepts, or specific features that seem to answer the research question. The researcher will assign a code—a word or short phrase— to significant sections of the data that are of interest. During initial coding, the researcher might use a variety of techniques. One common approach is open coding, where the researcher does not impose preconceived categories on the data. Instead, they allow codes to emerge from the data itself. It is important to be as detailed and inclusive as possible during this stage. The initial coding process should be extensive and thorough, capturing every potential piece of information that may be relevant to the research question. For this research, qualitative data analysis software such as NVivo is used to assist in organizing and coding the data. The codes generated here should not be final, but are rather a way of breaking down the data into manageable chunks, allowing for deeper examination later.

3. Finding Themes

Once the initial coding is completed, the next step is finding themes. This stage involves grouping related codes together to form broader categories or themes that represent the underlying patterns in the data. The researcher goes beyond the individual codes to explore the connections between them, searching for recurring concepts that provide a deeper understanding of the data.

The process of finding themes often involves going through the entire dataset multiple times. For this purpose, codes were reviewed to explore how they might fit together, combining similar codes under one theme or splitting broader codes into sub-themes. It is essential that the researcher remains open to revising these themes as more data is examined. Flexibility in this phase ensures that the themes that emerge truly reflect the complexity of the data and are not artificially imposed.

4. Reviewing Themes

After themes are initially identified, they must be reviewed and refined. This step involves examining the preliminary themes in detail to ensure that they accurately reflect the data. For this step it is important to ensure that each theme is coherent and distinct and that it has enough data to support it.

During this phase, the researcher will revisit the entire dataset to verify that the identified themes are representative of the data as a whole. They will check if the themes sufficiently capture the nuances and variations within the data. If a theme is too broad or vague, it may be split into smaller, more specific themes. Alternatively, if a theme is too narrow or does not have enough supporting data, it may be merged with other themes.

Reviewing themes is an iterative process. This means that the researcher may cycle back through the data several times, refining the themes, expanding some, and discarding others that no longer seem relevant. The goal is to ensure that the themes are meaningful, relevant, and robust representations of the data.

5. Naming Themes:

Once the themes have been reviewed and finalized, the next step is to name the themes. Naming involves assigning a concise and clear label to each theme that accurately represents its content. The name should be descriptive, capturing the essence of the theme while remaining flexible enough to encompass the range of data points it covers.

Good theme names are also specific enough to differentiate one theme from another but general enough to include a range of data. The naming process requires careful reflection on the overall story that the data tells and the key messages the researcher wants to convey.

6. Writing the Report

The final step in thematic analysis is writing the report. In this phase, the researcher presents the findings of the analysis in a coherent and structured format. The report should provide an overview of the themes and illustrate them with direct quotes or excerpts from the data to support the analysis.

In writing the report, main focus was to clearly describe the process of thematic analysis, outlining how the data was collected, how the codes and themes were developed, and how the themes were refined and named. A detailed discussion is included to explain and elaborate themes, explaining how each theme contributes to the understanding of the research question. This explanation includes the verbatim from the collected data that fits the theme as references. Conclusion

Thematic analysis is a systematic and flexible approach to analyzing qualitative data. The six steps—data collection, initial coding, finding themes, reviewing themes, naming themes, and writing the report—guide the researcher in extracting meaningful patterns from the data and presenting a comprehensive interpretation of the findings. Each step requires careful thought and attention to detail to ensure that the analysis is rigorous, transparent, and relevant to the research question.

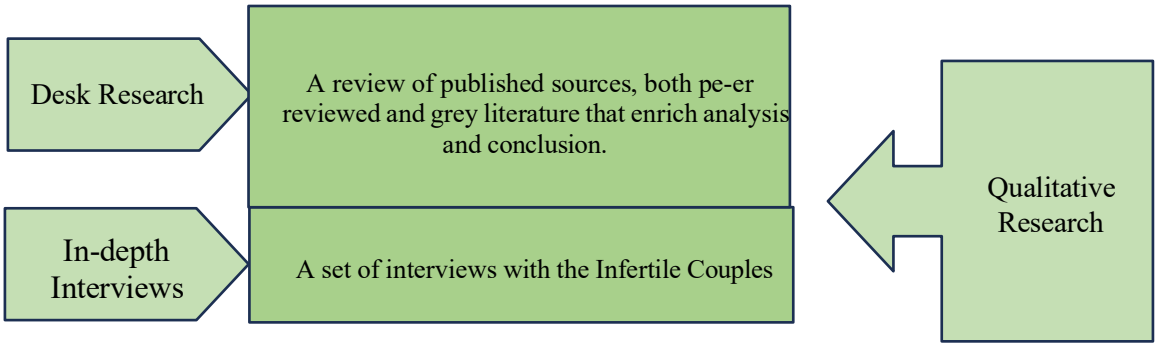

Figure 4.2 Qualitative Research Framework

Moreover, we used Computer Assisted Qualitative Data Analysis Software (CAQDAS) NVivo as a repository for storing the data, and all the coding was manually performed. The core function of NVivo is to act as a data management package, and not to analyze data but rather to assist the analysis process of which the researcher should always be in control of (Jackson & Bazeley, 2019). While NVivo is well-suited for mixed methods of qualitative research, the presence of nodes in NVivo makes it more compatible with grounded theory and thematic analysis approaches by providing ‘a simple to work with structure’ for creating codes and discovering themes (Zamawe, 2015). Moreover, NVivo identifies and tags the co-occurrence of codes within the text and groups them in broad topic areas.

Regarding data analysis, the interviews were audio-recorded (with participants’ consent), transcribed verbatim, and coded manually. A thematic analysis approach was used, involving several steps: initial coding, categorization of similar codes, and identification of emerging themes. Coding was conducted independently by the

researchers to enhance credibility, and discrepancies. NVivo software was also used to facilitate the organization and retrieval of coded data.

4.4 Summary of Data Collection and Analysis

Below illustrates visual representation of data collection method through sequential design:

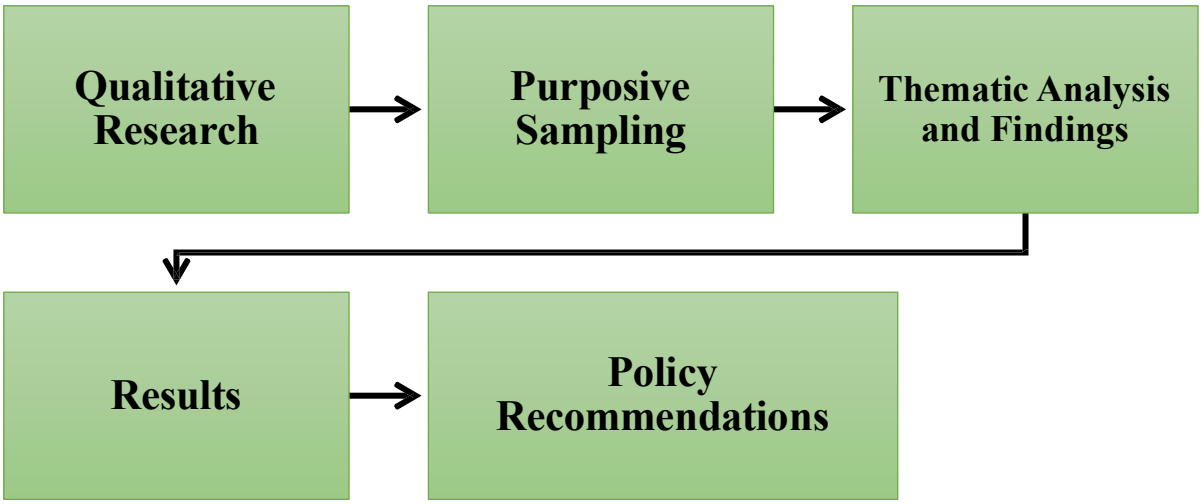

Figure 4.3 Summary of Data Collection & Analysis

When conducting sensitive research such as exploring the psycho-social impacts and coping strategies among couples with infertility, ethical approval is an integral part of the study to ensure that the study is established on ethical standards and guidelines. In order to gain ethical approval, a detailed research proposal was submitted at the NUML university. The proposal involved a step-by-step outline of research: research objectives, methodology, potential risks and how confidentiality will be maintained. Informed consent and information about the topic of research, the right to withdraw any time during interview without penalty, and how the data would be used and protected (pseudonyms used to protect participants' identities) was also added in the interview guide. The questioning was simple, and the languages preferred for the conversation was Urdu and English in order to avoid any confusion for our respondents.

Ethical approval was also needed for data collection tools (interview questionnaire) due to the sensitivity of the topic. Not doing so could have raised questions about integrity of research and the confidentiality of participants, especially for research conducted with the infertile couples. Following ethical considerations and standards not only ensure confidentiality of participants but also increase the credibility and acceptability of the research within the academic community and beyond. Moreover, the APA citation method, given by the Dissertation Handbook, was used to cite the work of every author/researcher who contributed in building literature for this study. This ensures transparency and honesty.

CHAPTER 5: RESULT

This chapter of the study will include a thorough research analysis of the data collected through interviews from the respondents under five main emerging themes and further sub-themes curated by the author. The discussion of this chapter includes the psycho-social, cultural, and familial aspects that contribute towards the impact of infertility on the emotional well-being and coping strategies among the couples experiencing infertility in Pakistan. These results are significant in highlighting the prevailing challenges and shortcomings crucial for addressing this research topic.

5.1 Sociodemographic Characteristics of the Participants

Table 5.1: Sociodemographic Variables and Characteristics of Participants

Couples Code	Infertility Type	Age (Male)	Age (Female)	Occupation (Male)	Occupation (Female)	Years of Infertilty
001	Primary Infertility	27	27	Research Assistant	Housewife	1
002	Primary Infertility	33	28	Businessman	Teacher	3
003	Primary Infertility	34	29	Shopkeeper	Nurse	5
004	Primary Infertility	38	34	Manager logistics	Teacher	4
005	Primary Infertility	35	32	Bank manager	Housewife	4
006	Secondary Infertility	43	39	MD finance	Housewife	3

007	Secondary Infertility	37	34	Doctor	Doctor	3
008	Secondary Infertility	36	34	Architect	Housewife	3
009	Secondary Infertility	35	32	Manager	Teacher	3
010	Secondary Infertility	34	32	Software engineer	Teacher	2

Figure 5.1 Distribution of Infertility types This table expands on Sociodemographic Variables and Characteristics of Participants included in the study the psycho-social impacts and coping strategies among couples with infertility, offering the demographic information of the sample

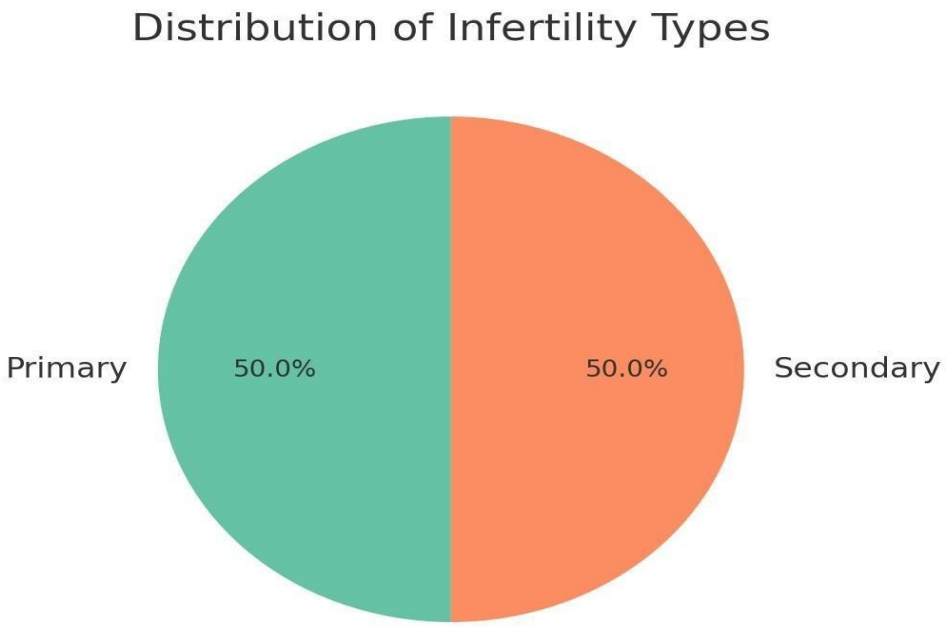

Figure 5.1 Distribution of Infertility types

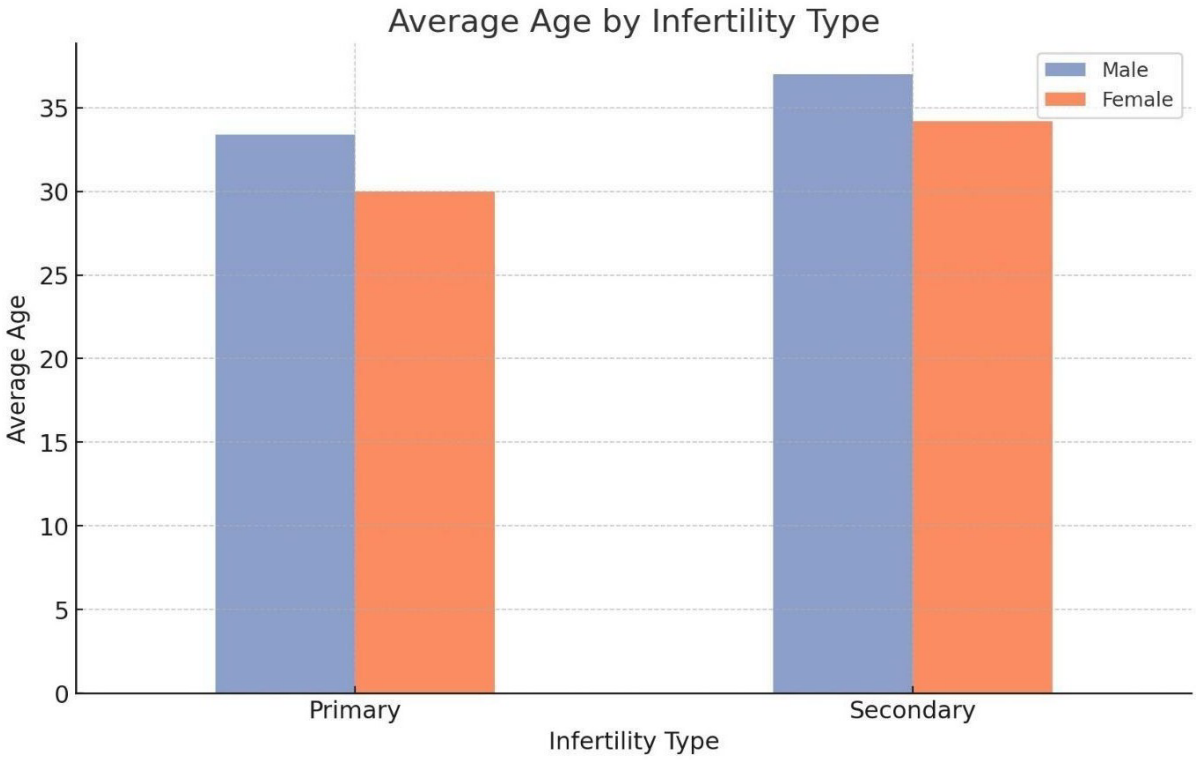

Figure 5.2 Average age by Infertility type

5.2 Major Findings

The following are the major themes and findings of the research study:

Table 5.2: Themes and Major Findings:

Theme	Sub-Themes	Summary of Major Findings
1. Psychological Impact	Initial Reactions-Coping	Infertility commonly triggers strong emotional responses such as shock and frustration. Couples adopt

	Mechanisms- Acceptance Journey	diverse coping strategies and gradually move toward acceptance.
2.Social Impact	Changes in Relationships- Social Stigma and Judgment	Infertility often leads to strained relationships and social withdrawal. Stigma, unsolicited advice, and judgment intensify emotional distress and isolation.
3.Personal Impact	Effect on Daily Life- Family Dynamics and Expectations	Infertility impacts daily functioning and productivity. Cultural expectations in joint family systems heighten pressure and emotional strain.
4.Treatment & Medical Options	Current Treatment Plan Exploration of Alternatives	Couples pursue treatments like IVF and hormone therapy. When unsuccessful, adoption is considered, indicating willingness to explore alternative routes to parenthood.
5.Support Systems	Role of Counselling Support from Partners Role of Support Groups	Counselling and mutual partner support are essential for emotional well-being. Support groups provide shared experiences, emotional empathy, and practical guidance.

This table expands on the themes and sub-themes related to the psycho-social impacts and coping strategies among couples with infertility, offering detailed analysis and responses from the interviews.

5.3 Sub-Themes and Associated Emotions in Infertility Experience

The following are the Sub-Themes and Associated Emotions in Infertility Experience

Table 5.3: Sub-Themes and Associated Emotions in Infertility Experience:

Theme	Sub-Theme	Associated Emotions
1. Psychological Impact	Initial Reactions	Shock, disbelief, sadness, frustration, fear
	Coping Mechanisms	Anxiety, determination, relief (when effective), hopelessness (when ineffective)
	Acceptance Journey	Grief, denial, resignation, gradual peace, emotional exhaustion
2. Social Impact	Changes in Relationships	Isolation, confusion, resentment, hurt
	Social Stigma and Judgment	Shame, embarrassment, anger, vulnerability
3. Personal Impact	Effect on Daily Life	Stress, fatigue, distraction, demotivation
	Family Dynamics & Expectations	Pressure, guilt, frustration, helplessness
4.Treatment Options	Current Treatment Plan	Hope, anxiety, emotional fatigue, cautious optimism
	Exploration of Alternatives	Uncertainty, openness, reluctance, emotional readiness
5. Support Systems	Role of Counselling	Relief, reassurance, validation, emotional clarity
	Support from Partners	Empathy, emotional closeness, reassurance, shared frustration

Theme	Sub-Theme	Associated Emotions
	Role of Support Groups	Belonging, comfort, mutual understanding, emotional solidarity

This table expands on the emotions analyzed in the sub-themes related to the psycho-social impacts and coping strategies among couples with infertility, offering summarized information.

Table 5.4: Thematic Analysis of the Impact of Infertility on Couples.

Table 5.4: Thematic Analysis of the Impact of Infertility on Couples

Theme	Key Findings	Representative Quotes
1. Psychological Impact	Infertility caused emotional distress: sadness, frustration, self-blame, and depression. Acceptance is gradual.	Wife: "Emotionally, it was really overwhelming. I felt a mix of sadness and frustration." Husband: "It was hard to accept." Doctor (Husband): "I felt a sense of great helplessness." Husband: "It was a blow to my self-esteem… I felt like I had failed somehow."

2. Social Impact	Couples faced stigma, pity, and judgment, especially in joint family settings. Some reported supportive social environments.	Husband: “There are always comments at family gatherings.” Wife: “Constant pressure from family... feels like they’re judging us.”
3.Personal Impact	Daily responsibilities and work life were affected. Couples either grew closer or experienced strain in relationships.	Wife: “I felt like I was failing my husband, but he has been so supportive.”Husband: “It was a lot to handle, but we’re in this together.”
4. Treatment & Options	Couples tried IVF and hormone therapy; some considered adoption. Emotional and financial burdens were significant.	Wife: “We decided to go for IVF… it was emotionally and financially draining.”Husband: “We consulted multiple doctors.”Wife: “If IVF doesn’t work, we’re open to adoption.”Wife: “If adoption is an option… why not?”
5. Support Systems	Counselling, therapy, and support groups helped couples cope. Supportive partners were crucial.	Wife: “Therapy helped… we grew distant, but it improved our relationship.”Wife: “Find support, whether it’s friends, family, or a counsellor.”Husband: “I cope by staying busy… trying to support her.”Wife: “Support groups… talking to others who understand helps a lot.”Husband: “Hobbies and work help distract me.”

This table summarize the themes their key findings along with participants verbatum related to the psycho-social impacts and coping strategies among couples with infertility.

CHAPTER 6: DISCUSSION

This study adds meaningful insights to existing psychological theories by showing how infertility can deeply affect both the individuals and their relationships. The outcomes of this study are closely aligned with its initial objectives and offer significant understanding of the psychosocial effects of infertility within the specific cultural setting of Pakistan. The research highlighted various emotional and psychological difficulties encountered by both individuals and couples, including persistent feelings of despair, sadness, frustration, and diminished self-esteem. Participants described everyday challenges and strains in relationships yet emphasized that open communication and mutual support played crucial roles in their coping processes. In response to their circumstances, many couples turned to a range of coping mechanisms such as seeking medical assistance, engaging in therapy, and making lifestyle adjustments—reflecting their psychological resilience.

The analysis further revealed that prevailing social expectations and the cultural prioritization of parenthood in Pakistani society strongly influence how infertility is perceived. Female participants, in particular, reported experiencing intense societal pressure to bear children, often facing stigmatization and marginalization as a result. These cultural dynamics also shaped their access to treatment and perceptions of what forms of care were socially acceptable or effective.

6.1 Theme 1: Emotional Impact

Most people perceive this infertility can just be a biological problem it can have psychological and emotional challenges for couples. The study indicates that both men and women experience distress when they are diagnosed with infertility, including anxiety, stress, depression, and feelings of inadequacy (Newton et al., 1999; Peterson, 2000; Farzadi et al., 2007; Remennick, 2000). The inability to conceive often leads to a sense of failure, fatigue, sadness, emptiness, frustration, effects individuals' mental well-being and their relationships.

The Respondent 1 (Wife) answer was:

"Emotionally, it was really overwhelming. I felt a mix of sadness and frustration. I had hoped for a bigger family, and this felt like a setback." Whereas Respondent 2 (Husband) answered the question as:

"It was hard to accept."

A medical doctor who had education and job answered, he had a great emotional stress upon hearing the news of secondary infertility:

"Yes, I felt a sense of great helplessness. We had hoped for a larger family, and this felt like a huge setback."

Lastly one of the major emotional impact that the couples had faced was the acceptance journey. Acceptance of infertility is a gradual process. It involves navigating through denial, frustration, and gradual adjustment.

According to one respondent Q is things were not still working on full acceptance. While respondents A and S are learning to accept and adapt over time.

According to one respondent (Husband):

"For me, it was a blow to my self-esteem. In our culture, there's a lot of pressure on men to have children. I felt like I had failed somehow, and that was difficult to come to terms with.

But I tried to remain hopeful for (A) sake."

These interviews indicate that emotional impact was significant among the infertile couples. The initial reactions were that their diagnosis often triggered intense emotional responses in couples such as shock, sadness, and frustration. Couples employed various strategies to cope, including seeking professional counselling, focusing on existing children, and engaging in personal hobbies.

6.2 Theme 2: Social Impact

Due to the social impacts the couples faced various changes in relationships alongwith the social stigma and judgment. The family was found to be a common source of stressors for the infertile couples. The family members of the couples either knowingly or unknowingly through their actions and words put so much stress on the infertile couples. Especially in a country like Pakistan, the mentality of people is that the soul purpose of marriage is to produce

offspring in the first year of marriage. Infertility can alter relationships with family and friends, often leading to the feelings of isolation, judgment, and unsolicited advice. Sensitivity from others can significantly impact the emotional well-being of the couples.

Some infertile couples recounted and reported various acts of pity and sorrow exhibited towards them by their family members. They often, either directly or indirectly show regret by trying to suggest solutions to the couple's awkward situation. This is usually faced by the couples in the early stages of their infertility and surprisingly within very few months of marriage.

According to one respondent (Husband):

"It's been hard with my family. Some of them don't talk about it directly, but there are always comments at family gatherings, especially from my mother. It makes things awkward for her, and I feel caught in the middle."

Another Respondent 3 (Wife) told:

"There's this constant pressure from family, especially since we live in a joint family system. People ask questions and sometimes it feels like they're judging us."

Respondent 5 (Wife) stated:

''I can see that everyone was feeling bad for me. It was their concern, but I felt uneasy and more at fault because of that''

Similarly, Hassan et al. (2019) conducted empirical research in Baluchistan, highlighting the stigma faced by childless women due to patriarchal mindsets and cultural values, leading to feelings of loss, isolation, and strained social relationships. Given these challenges, the present study aimed to investigate the impact of infertility on women's social status in a patriarchal setting by collecting primary data from an area where discriminatory attitudes and patriarchal values prevail. Another factor that accounts in the social impact was that couples often face stigma and judgment from others, which can exacerbate feelings of inadequacy and stress.

On the other hand, some also reported the positive behaviour of their relatives, that they didn't burden them with the social stigma. Upon inquiring them with been treated differently

by others or at events after the diagnosis, one of the primary infertility female respondent told that:

"No, not really. Off course distant relatives ask us about having kids saying *''bacho ka time a gya hai'' but Alhamdulillah, we both are blessed. Our parents always reply that we are very happy to see that they are our children, and* they *are with us. When Allah wills, He will. It felt very good."*

One couple struggling with secondary infertility shared a positive feedback on support from family and friends that helped them focus on the bright side of the situation.

Respondent 7 (Wife) told:

''My in-laws were very supportive. My mother-in-law especially, she had a talk with my husband regarding my health after miss-carriage. Although my husband had my consent that we try for a baby, but my mother-in-law, she asked him that we should not do this, we should not try to have another baby because it is affecting my health.''

6.3 Theme 3: Personal Impact

Infertility impacts the daily life, including work performance and personal responsibilities among the couples. The emotional strain either one or both individuals are carrying can interfere with the focus and productivity. In the *Biopsychosocial Theory* of infertility presented by Gerrity (2001) said that that infertility stressors occur in the existential, physical, emotional, and the interpersonal spheres and maybe beyond the usual coping abilities of the ordinary individual (Bernstein et al., 1985; Bromham et al., 1989; Greil et al., 1989; Gerrity, 2001; BirenbaumCarmeli, 1994).

According to Respondent 4 (Wife):

"Initially, I felt like I was failing my husband, but he has been so supportive. We've become closer through this." While her husband, Respondent 5 said that:
"It was a lot to handle, but we're in this together."

Living in joint family systems can intensify the impact of infertility due to external pressure and cultural expectations. Managing family dynamics becomes a significant aspect of coping.

6.4 Theme 4: Treatment and Medical Options

According to the interviews conducted, it was discovered that many couples are exploring various treatment options such as IVF and hormone therapy. They are also aware of the fact that effectiveness and emotional toll of these treatments can vary, influencing future decisions.

Adoption is considered as an alternative when medical treatments are unsuccessful. Openness to adoption reflects a willingness to explore all possible avenues for expanding the family.

Respondent 8 (Wife):

"We decided to go for IVF after a lot of research. It was emotionally and financially draining, but we wanted to give it our best shot."

Respondent 9 (Husband):

"We consulted multiple doctors."

Despite the substantial burden, many couples and individuals seek medical treatment, with some achieving success. Infertility profoundly impacts women's lives, with the World Health

Organization (WHO) estimating that over 10% of women worldwide face infertility (Infertility, 2023). The prevalence of the infertility, affecting both genders equally, has remained unchanged for the past two decades, with global rates increasing annually by 0.370% (Roode et al., 2019).

Sometimes it does happen that IVF is not successful.

According to one couple:

"We went through IVF treatment about a year ago, but it didn't work the first time. We're considering going for it again."

Some couples did mention adoption as a choice to fulfill their void for a child. One couple diagnosed with primary infertility told that they are looking forward to adopting as a second option.

Respondent (Wife):

"Yes, we've talked about it. If the IVF doesn't work, we're open to the idea of adopting. We've started looking into adoption agencies, but for now, we're focusing on the treatment."

Another couple -who's husband was a doctor himself- mentioned that they would opt for adopting a child and bringing him/her into their lives to complete a family and will provide the child with love, care and nourishment.

Respondent (Wife) :

''Because I felt like if adoption is an option, then there are a lot of children in the world who need parents. So if I can help someone in that way, then why not?''

6.5 Theme 5: Support Systems

Professional counselling plays a crucial role in helping couples navigate their emotions and develop coping strategies. It provides a structured environment for discussing and addressing challenges. Many participants found counselling helpful for their emotional well-being. Professional counselling was found to be one of the common coping strategies for the infertile couples, especially soon after their diagnosis was confirmed. Most of the couples draw motivation from themselves. Most of them feel left alone and do not think others will understand their predicament. So in this case counselling plays a very vital role. This is what a female with 3 years of infertility had to say:

"I would say, don't be afraid to talk about it. Find support, whether it's friends, family, or a counsellor. It's okay to feel what you feel, but don't lose hope."

Another respondent (Wife) told that her relationship with her husband got better eventually after taking therapy.

She added:

"It started to get better a little bit, but then we realized that we were not able to share it with each other, so we decided to go for therapy. Like therapy, it started out as simple sessions where we first went individually and opened up later, I got to couple counselling. So now I think things got better. After the diagnosis, it felt like our relationship was experiencing ups and downs because obviously, we were both going through something, and we didn't share or communicate with each other, so we naturally grew distant. So, it's related that all of this

happened after the diagnosis. Therapy helped with both aspects - dealing with the diagnosis and improving our relationship. We have started exploring more options."

Mutual support between partners is very essential. Open communication and empathy help couples cope better with their infertility challenges.

According to Respondent 12 (Wife):

"Some friends didn't know how to act around us. There were awkward moments, and some even made insensitive comments." According to Respondent 13 (Husband):

"It's been tough during family gatherings."

Couples employed various coping strategies such as seeking medical treatments, joining support groups, and focusing on existing children or hobbies. Acceptance was a gradual process for most of the couple.

Another coping strategy adopted by infertile couples is to unite in grief time period where they could support each other. This strategy works efficiently when the husbands are very supportive of their wives. The narratives of the respondents showed that most of the husbands are understanding and willing to go for clinic appointments with their wives. They were also ready to undergo the necessary medical tests as part of the efforts to find the solutions to the problem. A respondent (Husband) narrated:

"I cope by staying busy with my shop, but it's still hard to see (S) go through this. I'm trying to work out how to the handle the pressure from my family while supporting her at the same time."

Support groups provide a platform for sharing experiences and gaining insights from others in similar situations. They offer emotional support and practical advice.

Respondent 6 (Wife):

"I've tried to focus on self-care and support groups. Talking to others who understand helps a lot."

Respondent 7 (Husband):

"I found solace in hobbies and keeping busy at work. It distracts me from stress."

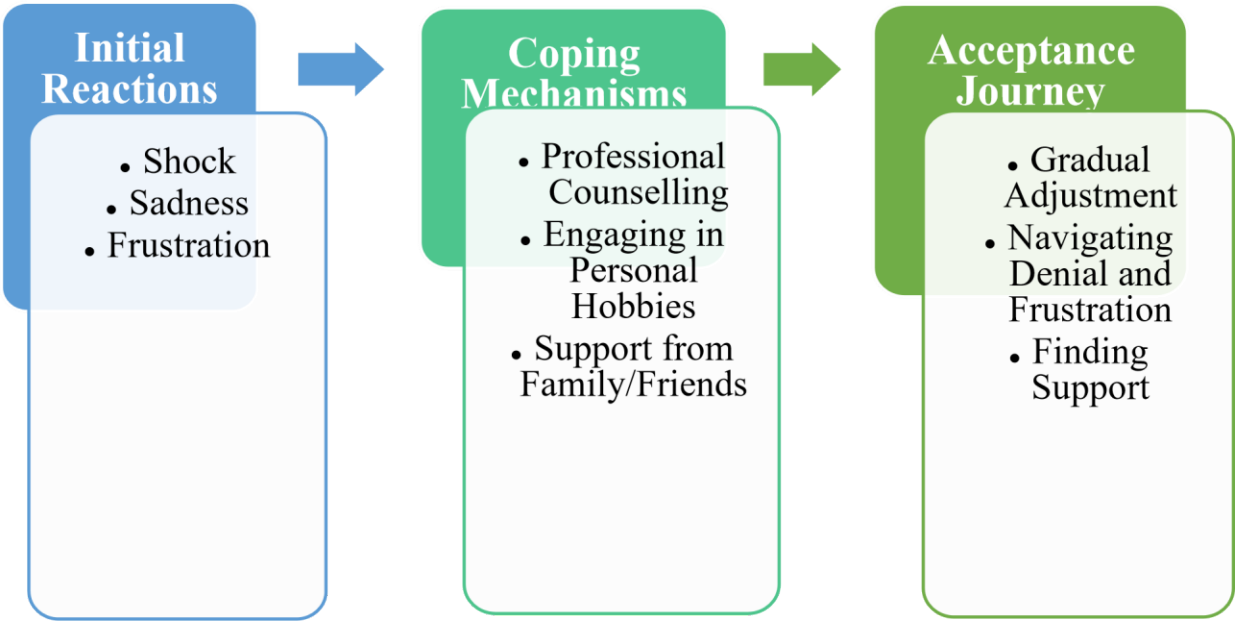

Figure 6.1 Flowchart of Emotional Impact of Infertility

Summarizing all the information in a in figure 6.1, the above conducted study reveals the significant amount of emotional and social impact of infertility on the couples. Many were experiencing feelings of sadness, frustration, and social stigma along with pressures. The cultural expectations about growing a family, intensified the pressure, especially for women, which lead them towards a sense of inadequacy, depression and isolation. Despite these greatly disturbing challenges, many infertile couples found strength in each others' mutual support.

The coping strategies included seeking professional counselling, undergoing medical treatments like IVF, joining support groups, and focusing on personal along with professional goals to manage the stress levels. Some couples remained hopeful for the better future treatments or considering adoption as an option, and others were working towards the acceptance of their situation with peace. The findings of the research study emphasize the importance of the social support and helping couples to navigate the emotional complexities of infertility diagnosis.

CHAPTER 7: CONCLUSION

The present section focuses on presenting the important findings of the study. The results converse in light of previous literature. The purpose and aim of the current study are to explore the associations between coping strategies, individual characteristics, and psychosocial factors related to infertility among couples. The study's contribution is also reported, along with limitations and suggestions for future research. The chapter concludes with a summary of the research study's findings, conducted on a non-clinical sample of the Pakistani population. This study is unique as it focuses much to fill the research gaps related to infertility and its psychosocial impacts. It explores the psychological as well as emotional experiences, social behaviour, societal pressure couples have to face after they are diagnosed with infertility. It focuses on couples as the main subject of research because there are not many studies that consider exploring the psychosocial impact on couples as a whole as they move forward with this life altering condition. Another significance of this research is the contextual investigation

i.e. Pakistani culture's impacts on psychological wellbeing and societal behaviour towards infertile couple as individuals and a team. Furthermore, there is a vast research gap regarding the coping mechanisms used by the couple to deal with this lifelong infertile condition therefore it is important to conduct this study to explore how couples cope with the diagnosis, what is their treatment related decision making process, as little to none research has been done on this aspect.

This study will add to the existing literature in terms of broad understanding of couple's struggle with infertility in addition to women or men's individual distress, furthermore cultural aspect will help understand the diver nature of psychosocial factors on couples, coping mechanisms will provide information about the treatment opportunities as well as other options available to deal with infertility therefore creating awareness and laying groundwork for future research.

The study aimed to investigate the associations between coping strategies, individual characteristics, and psychosocial factors related to infertility among couples. At the start of the study, the researcher intended to sample 15 infertile couples. 7 respondents decided

to opt out of the study and therefore, we were left with a sample of 23 respondents out of which 20 were selected for the interviews. A sample of 20 was considered sufficient because it has formerly been endorsed that qualitative research requires a sample size of a minimum of 12 Respondents to reach saturation point (Braun, 2016; Fugard, 2015).

This research adds valuable perspective on the personal experiences of infertile couples, offering a foundation to enhance counselling methods and community-level interventions. It underscores the necessity of embedding psychological support services within fertility care and highlights the role of emotional support systems in mitigating the impact of infertility.

A key observation was the pronounced psychological distress and erosion of self-worth among women, who disproportionately bear the social consequences of infertility due to entrenched gender norms. The study advocates for therapeutic models that address the specific emotional needs of women in such cultural contexts.

Moreover, the study presents a nuanced view of how infertility is influenced by interrelated emotional, social, cultural, and psychological factors. While it does not investigate biological causes directly, it enriches our understanding of how infertility is perceived and managed by couples in Pakistan. The findings serve as a stepping stone for future research and policy formulation aimed at addressing infertility through a culturally informed and psychologically supportive framework.

Furthermore, building on Lazarus and Folkman's model of stress and coping, the findings reveal that infertility isn't just a personal challenge, it's a shared, ongoing stressor that affect how couples relate to one another. Interestingly, the way men and women coped with the experience was often quite different. Women tended to use more emotional strategies, while men leaned toward practical solutions or tried to avoid the issue altogether. This difference challenges the idea that couples face stress in the same way and suggests that coping theories need to better reflect these gendered and culturally influenced responses. The emotional weight of infertility—seen in common experiences of sadness, anxiety, and isolation—also shows that current psychological models should more fully consider the long-term and relational nature of such stress. These insights point to the need for more flexible, culturally sensitive approaches in both theory and practice.

In summary, the study bridges significant gaps in existing scholarship and provides actionable insights for mental health professionals, healthcare providers, and policymakers. It promotes the development of culturally appropriate interventions to lessen the emotional burden of infertility and enhance the well-being of those affected.

7.2 Contribution of the Current Research

The findings of the study revealed that the infertility affects couples in multifaceted ways. It also significantly influences their emotional well-being, relationships, and interactions with the society. This study is significant as there has been limited research in Pakistan, this area considering both types of infertility. Couples experienced emotional distress, characterized by the feelings of sadness, frustration, and hopelessness. Many couples, especially females, felt overwhelmed by the societal pressure and the stigma attached to infertility, particularly in the Pakistani culture where childbearing is highly valued.

Study findings also suggested that marital relationships were also impacted, with some couples reporting strain, while on the other hand, some found that infertility brought them closer together. Communication and mutual support emerged as key factors in the results for maintaining a strong marital bond amidst the daily challenges. Coping strategies among couples varied, ranging from seeking medical treatment and counseling to focusing on personal interests and existing family. Although the journey towards the acceptance was really a difficult task, many couples showed great resilience and continued to hold onto hope, whether through undergoing medical interventions, adoption, or embracing their current family situation.

The study results contribute valuable insights to the existing body of literature on infertility and inform strategies for improving support and services for affected individuals and communities. The study's findings may have implications beyond infertility contexts, contributing to a deeper understanding of emotions such as helplessness, loss, guilt, and sadness. This understanding can inform counseling approaches for individuals including patients with spinal cord injuries, stroke survivors, and their caregivers.

7.3 Limitations and Recommendations

In conclusion, the current study proves that the infertile couples face psychological and social impacts, everyone has their own way to cope with situation including opinion difference and traits are difference. However, there are limitations to this study. Future research is needed to address these limitations, such as the study was conducted within a specific cultural and social context of Pakistan only, which may not be representative of the other countries. Cultural beliefs, family structures, and the societal expectations regarding infertility may vary significantly, limiting the application of these findings in other settings.

As the study was on a very sensitive matter and it relied on interviews and self-reported experiences of the individuals, which may be influenced by the participants' willingness to share their private/ sensitive information. Some couples may have hesitated to fully express their true feelings or experiences, leading towards the potential biases in the data. Addressing these limitations in future research could lead to a more comprehensive understanding of the psychosocial impacts of infertility and improve support mechanisms for affected couples.

Considering the current study's limitations, there are several recommendations for future research. Firstly, it would be beneficial that in an infertility treatment center, comprehensive psychological counselling as part of the fertility treatment process should be integrated. Therapists specializing in the infertility can help couples to navigate their emotional challenges and develop sufficient coping strategies personalized to their exclusive conditions. They should include specific psychotherapy/ counselling sessions for both partners, or they can be gender-specific sessions, which can help to address the emotional needs that differ between men and women in their experiences with infertility. Additionally, couples facing infertility often struggle with the family and societal pressures. Educational programs aimed at family members counselling can help them understand the term, infertility. This can provide emotional support without adding pressure or judgment. Finally, it would be helpful that governments and health authorities should consider policies that make infertility treatments more accessible and affordable for all couples. Fertility treatments are very costly and making them more affordable can ease the financial strain on the couples irrespective of their socioeconomic status.

Overall, the present study provides valuable information on the associations between coping mechanisms, individual traits, and psychological and social factors which are

referring to infertility among couples in a Pakistani clinical sample. However, more factors can include for better understanding and the efficacy of this study. This study focuses on the need for an increased assistance and awareness, support system for the couples dealing with the infertility. Society must understand and feel empathetic, because these couples are already feeling emptiness in their lives, might lessen the emotional toll and sense of loneliness associated with infertility, in addition to the readily available medical and psychological care. The difficulties of infertility can be better managed by couples while preserving their mental and interpersonal health by promoting open discussion and the investigation of all family-building choices.

This research intricate interactions the complicated and complex interplay between social, emotional, psychological, physical and biological factors in the experience of infertility, offering valuable insights for professionals working with infertile couples and for the couples themselves as they navigate this situation. Another limitation might be the sample size that the sample size adopted i.e., 5 primary and 5 secondary couples were interviewed for this study. (n = 20) is small and could affect generalizability. However, the purpose of this study is to explore and understand the psychological and social aspects of facing infertility and how individuals cope with this diagnosis not to generalize the findings. Future research should focus on the longitudinal studies to track the emotional and the psychological journey of the couples over time period. This can provide deeper insights into how the coping mechanisms evolve and what kind of long-term support may be needed.

Although this study offers meaningful insights into the psycho-social impacts and coping strategies among couples experiencing infertility, several limitations must be considered when interpreting the findings. One of the most significant limitations is the sample size, which was relatively small and does not allow for broad generalization of the results to the wider population. The limited number of participants restricts the diversity of experiences, coping mechanisms, and socio-cultural contexts that could have emerged with a larger, more varied group. Another important limitation pertains to the sampling location. Participants were drawn exclusively from three major urban cities in Pakistan, which may have influenced the responses due to the unique cultural, educational, and economic characteristics of urban populations. Urban participants may have more access to medical

resources, greater exposure to psycho-social support systems, and potentially more liberal attitudes toward infertility and related treatments. In contrast, individuals living in rural or conservative areas often face different cultural pressures, have limited access to healthcare, and may adhere to more traditional gender roles and belief systems. As a result, the psycho-social experiences of rural couples might differ substantially from those of their urban counterparts. Unfortunately, these perspectives were not represented in this study, which narrows the cultural and geographic scope of the research. Furthermore, the study relied on self-reported data collected through interviews, which may introduce bias due to social desirability or personal discomfort in disclosing sensitive information. Since infertility is still considered a taboo topic in many parts of the country, participants may have withheld certain emotional experiences or altered their responses to align with societal expectations. Future research should consider larger and more demographically diverse samples, including rural populations, to capture a more representative understanding of infertility experiences across different cultural and social landscapes in Pakistan.

Appendices

APPENDIX A

Interview Guide: Psycho-Social Impacts and Coping Strategies Among Couples with Infertility

1. Describe your emotional journey since receiving your diagnosis. How did you initially react?
2. What kind of support have you received from your spouse and family members since your diagnosis?
3. Have you noticed any changes in your relationship with your partner since receiving the diagnosis? If so, can you elaborate?
4. How have you and your partner maintained intimacy and communication throughout the fertility treatment process?
5. How has your diagnosis affected your personal and professional life?
6. Did cultural or social factors influence your decision-making process regarding the treatments?
7. How did you initially cope with the news of your diagnosis?
8. Have you experienced any stigma or discrimination as a result of your infertility? If so, can you describe how you have coped with these experiences?
9. While deciding for a treatment (if any) did cultural or social factors influence your decision?
10. Have your coping strategies evolved over time, and if so, how?
11. Which coping mechanisms have been most effective for you during this journey?
12. How did you and your partner decide on a specific treatment plan?
13. What are your hopes and fears for the future, whether with or without children?
14. What advice would you give to other couples facing infertility?

انٹرویو گائی ڈ

1 اپنی تشخیص جاننےکے بعد سے اپکا جذبات کیا تہے ۔ شروع میں آپ کا رد عمل کیسا تھا ؟.

2 تشخیص کے بعد سے آپ کو اپنے شریک ح یات اورگہر کے افراد کی طرف سے کس طرح کی. مدد ملی ہے ؟

3. کیا آپ نے تشخیص حاصل کرنے کے بعد سے اپنے ساتھی کے ساتھ اپنے تعلقات میں کوئ ی تبدیلی محسوس کی ہے ؟ اگر ایسا ہے تو کیا آپ تفصیل سے بتا سکتے ہیں ؟

4 علاج کے پورے عمل م یں آپ اور آپ کے ساتھی نے قربت اور بات چیت کو کس طرح برقرا ر. رکھا ہے ؟

5 آپ کی تشخیص نے آپ کی ذاتی اور پیشہ ورانہ زندگی کو کس طرح متاثر ک یا ہے ؟.

6 کیا أگے علاج کا ف یصلہ کرنے کا عمل کسی قسم کے ثقافتی سماجی یا مالی امور کی وجہ سے متاثر ہوا؟

7 آپ نے ابتدائی طور پر اپنی تشخیص کی خبر کو ک یسے سبھالا یا ک یسے تسلیم کیا؟.

8. کیا آپ نے اپنی اولاد نا ہونے کے نتیجے میں کسی بدنما داغ یا امتیازی سلوک کا تجربہ ک یا ہے ؟ اگر ایسا ہے تو ک یا آپ بیان کر سکتے ہیں کہ وہ کیا تہے؟-

9. علاج کا فیصلہ کرتے وقت (اگر کوئی ہو) ک یا ثقافتی یا سماج ی عوامل نے آپ کے فیصلے کو متاثر کیا ؟ ان تجرباتب پر اپکا ردے عمل کیسا تہا ؟-

10 وقت کے ساتہ آپ نے اپنی تشخیص سے سمبہلنے کے لی ے کوی حکمت عملی اپنای؟. اگر ایسا ہے تو ک یسے ؟ -

11. اس سفر کے دوران ان حالات سے مقابلہ کرنے کا کون سا طریقہ کار آپ کے ل یے سب سے زیادہ موثر رہا ہے ؟

10. آپ اور آپ کے ساتھی نے علاج کے مخصوص منصوبے کا فیصلہ کیسے ک یا ؟

11. مستقبل کے لیے آپ کی کیا امیدیں اور خدشات ہیں ، چاہے بچے ہوں یا نہ ہوں ؟

12. اس مشکل کا سامنا کرنے والے دوسرے جوڑوں کو آپ ک یا مشورہ دیں گے۔

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