



FERTILITY CARE CHOICES AND THEIR PSYCHOSOCIAL  
IMPLICATIONS FOR COUPLES IN IBADAN, NIGERIA

Dissertation Manuscript

Submitted to Unicaf University in Zambia  
in partial fulfilment of the requirements  
For the degree of

Doctor of Philosophy (PhD) in Public Health

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July, 2025

Approval of the Thesis

FERTILITY CARE CHOICES AND THEIR PSYCHOSOCIAL  
IMPLICATIONS FOR COUPLES IN IBADAN, NIGERIA

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## Abstract

FERTILITY CARE CHOICES AND THEIR PSYCHOSOCIAL  
IMPLICATIONS FOR COUPLES IN IBADAN, NIGERIA

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**Introduction:** Infertility is a global health concern affecting 10-15% of couples worldwide, causing significant psychological, social, and economic distress. Couples facing infertility make complex decisions regarding fertility care, influenced by personal perceptions and available interventions. This study aimed to examine fertility treatment choices and their associated psychosocial implications for infertile couples in Ibadan, Nigeria.

**Methods:** This study employed a qualitative (exploratory) design, utilizing in-person interviews and open-ended questionnaires. Participants included previously infertile patients (selected via convenience sampling) and fertility specialists, herbalists, and clerics (selected through subjective or evaluative sampling). The study explored the multifaceted quest for solutions among infertile couples and the perceptions of their caregivers.

**Results:** A Total of 50 participants were included (40 previously infertile patients and 10 fertility care providers). The study uncovered diverse patient preferences. A significant proportion (42.5%) exclusively opted for hospital treatment, while others integrated it with spiritual (15%) or herbal (17.5%) remedies. Influencing factors included emotional states, socio-cultural pressures, medical considerations, and individual values. The psychosocial impact was considerable, though often alleviated by religious coping mechanisms and social

support. Obstacles to treatment included inadequate government support, financial constraints, and age.

**Conclusion:** This study illuminates the complex psychosocial factors influencing fertility care decision-making among couples in Ibadan, Nigeria. It demonstrates that medical, spiritual, and traditional healing approaches are not mutually exclusive but are intricately interconnected in response to the significant emotional, cultural, and existential challenges associated with infertility. The research illustrates that care choices are significantly influenced by intrapsychic conflicts, unconscious defences, and the interaction between personal agency and societal expectations, thereby extending Freudian psychoanalytic concepts within a Yoruba context. The findings highlight the necessity for comprehensive and culturally sensitive fertility care that incorporates psychosocial support, respects diverse belief systems, and considers the gendered aspects of reproductive distress. This study offers empirical insights into a significantly under-researched population and provides a new perspective on the intersections of psychic life, cultural meaning, and reproductive health in contexts where parenthood is closely linked to identity, legacy, and social belonging.

**Keywords:** Infertility; Fertility Care Choices; Psychosocial Implications; Coping Mechanisms; Ibadan; Nigeria.

## Declaration

I declare that this thesis has been composed solely by myself and that it has not been submitted, in whole or in part, in any previous application for a degree. Except where stated otherwise by reference or acknowledgment, the work presented is entirely my own.

## AI Acknowledgement

### **Use of AI:**

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## Dedication

I am appreciative of the distinctive strength, passion, focus, and wisdom that God has bestowed upon me to complete this doctoral piece. This dissertation is dedicated to my family (Mrs A.O. Kupolati-Queen Solomon, Sola, Everest, Gideon, and IrawoOluwa), the Iye Hospital staff, and all infertile patients worldwide. The fulfilment of their aspiration meant a world to me. A special thanks to my older brother, Professor WK Kupolati, who has always believed in me, supported me and encouraged me to persevere even when things were difficult. Thank you, Uncle K.

This dissertation is dedicated to a select number of exceptional individuals who played a critical role in the project's successful completion. I am eternally grateful to my supervisor, Prof. Hamed Ademola Adetunji, as well as my late father and mother, Chief G.O Kupolati and Mrs B.Y. Kupolati, who were great encouragers from the beginning but were unable to see the impact of their efforts. I dedicate this dissertation to ME in honour of my devotion to learning, sleeplessness, focus, and hard work, as well as my pursuit of perfection, which has the potential to bring joy and a positive outcome to all of my patients. I take great pride in my unwavering commitment to the pursuit of excellence, despite my advanced age.

## Acknowledgements

I am grateful to Unicaf University for the scholarship they granted me, as this project was not supported by research funding or grants, nor was permission granted to reprint copyrighted materials. Without this scholarship, this project would not have been feasible. I am appreciative of Unicaf University, my alma mater, for allowing me to fulfil a lifelong dream. The scholarship is greatly valued.

The impetus for this PhD program stemmed from the large number of infertile patients who, even after menopause, visited multiple non-medical centres before finally presenting themselves to the hospital for evaluation. It's critical to comprehend why. I was motivated to finish this project by my loved ones' encouragement. It was only right that I give them my sincere appreciation first.

Above all, I am thankful to my supervisor, Prof. Hamed Ademola Adetunji, for agreeing to help me navigate the murky waters of academia; his support is truly comforting. It helped that he challenged me to read every book and journal on infertility.

I want to express my gratitude to my spouse, Mrs O.A. Kupolati, my children, Everest, Gideon, and Adeola, and my inquisitive grandson, IrawoOluwa, for their unwavering support in maintaining family harmony during my engagement with this project. I also want to thank the entire staff at "Iye Hospital" for their steadfast assistance. To my older brother, Prof. Williams Kupolati, and to my twin brother, Taiwo Kupolati, SAN, who have been cheering me on from their engineering and law desks, thank you as well.

I will never forget how much my late father and mother, Chief G.O. Kupolati and Chief (Mrs.) B.Y. Kupolati helped, encouraged, and advised me. I appreciate them forever.

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## List of Abbreviations

ART	Artificial Reproductive Technology
IVF	In-vitro Fertilization
ICSI	Intra-Cytoplasmic Sperm Injection
IUI	Intra-Uterine Insemination
WHO	World Health Organization
LGBTQ	Lesbian, Gay, Bisexual, Transgender, Queer, or Questioning
PCOS	Polycystic Ovarian Syndrome
STI'S	Sexually Transmitted Infections
IUD	Intra-Uterine Device
LPD	Luteal Phase Defects
PID	Pelvic Inflammatory Disease
NIH	National Institute of Health
BMI	Body Mass Index
PESA	Percutaneous Epididymal Sperm Aspiration
MESA	Microsurgical Epididymal Sperm Aspiration
TESE	Testicular Sperm Extraction
PGD	Pre-implantation Genetic Diagnosis
PGS	Pre-implantation genetic Screening
GIFT/ZIFT	Gamete/Zygote Intra-fallopian Tube Transfer
HSG	Hysterosalpingography
MRI	Magnetic Resonance Imaging
CAT-scan	Computed Axial Tomography scan
CT-scan	Computed Tomography scan
IUD	Intra-uterine device
UTI	Urinary Tract Infection
UREC	University Research Ethics Committee
UUREC	Unicaf University Research Ethics Committee
PR	Principal Researcher
GDPR	General Data Protection Regulation

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## CHAPTER 1: INTRODUCTION

All races and creeds share the act of procreation since it ensures the continuation of life. Producing offspring and maintaining lineage continuity are two of all living species' most critical desires. Couples who are unable to conceive after a year of unprotected sexual activity are deemed to be suffering from infertility. When this goal is not met, a complex social dilemma emerges that is emotionally distressing, psychologically challenging, and frustrating for the vast majority of people (Sheriff, 2019; Wischmann, 2008; (Sezgin, Hocaoglu, & Guvendag-Guven, 2016). Infertility affects 10-15% of couples worldwide (World Health Organization [WHO], 2023; Lunenfeld & Van Steirteghem, 2004). Petraglia et al. (2013) noted that the incidence of infertility may vary globally due to behavioural and dietary variables, chronic infections, and sexually transmitted infections across the majority of regions.

The medical model of infertility treatment commenced with the introduction of fertility medications in the 1950s in the United States, a developed nation where progress in reproductive medicine has resulted in a diverse and modern range of infertility treatments (Inhorn & Van Balen, 2002), including in vitro fertilization (IVF) (Aimagambetova, et al., 2020), intrauterine insemination (IUI) (Nagori & Panchal, 2021), and intracytoplasmic sperm injection (ICSI) (Gowramma, Nayak, & Cholli, 2019). Public or private health insurance, regulatory frameworks, and psychological support services often support these treatments. Thus, while the psychosocial impact of infertility persists, individuals in these contexts generally have enhanced options, resources, and societal understanding to address fertility challenges.

However, developing nations face significant barriers in obtaining infertility treatment (O'Donnell, 2007). Inadequate healthcare infrastructure, elevated costs, a shortage of trained professionals, and ineffective health policy impede access to advanced fertility treatment. Traditional and spiritual healing methods often represent alternative choices for couples experiencing infertility. This inconsistency worsens health inequities and amplifies the psychosocial effects of infertility in these areas. In addition, Leke et al. (1993) discovered that fertility is influenced by a variety of cultural, social, and economic variables, particularly in developing countries where deprivation and infectious diseases are prevalent, resulting in more severe psychosocial challenges and worsened outcomes.

Environmental causes largely influence Africa's infertility, and the increase in infertility in most developing countries is compounded by limited access to quality treatment (O'Donnell, 2007; Dawkins et al., 2021). Lack of access to quality healthcare results in considerable distress for couples facing infertility, accompanied by profound social stigma and socioeconomic challenges (Whitehouse & Hollos, 2014). Nearly 180 million couples in third-world nations experience primary or secondary infertility, according to WHO estimates (Ombelet, 2011). Those impacted do not sit back and watch; instead, they make joint or independent choices on where to seek help. These decisions likely serve as predictors of the outcomes, as they are personal to the individual and are based on both immediate and long-term outcomes (Daniluk, 2001) .

In many African societies, infertile women experience greater suffering compared to their male counterparts, irrespective of personal decisions aimed at achieving positive outcomes. In these regions, women are perceived as mere objects within the institution of marriage, while men are regarded as active participants (Hiadzi & Boafo, 2020). In such a

woman-hating society, men cannot be sterile, hence women are blamed for infertility-related issues. According to Lindsey (2015), "*The subjugation of a woman is the subjugation of her womb,*" this is the shame suffered by an infertile woman. Therefore, men adopt social standards that have a negative impact on women. This ultimately impacts the fertility therapeutic choices of both the man and the woman (Turiel, 2023).

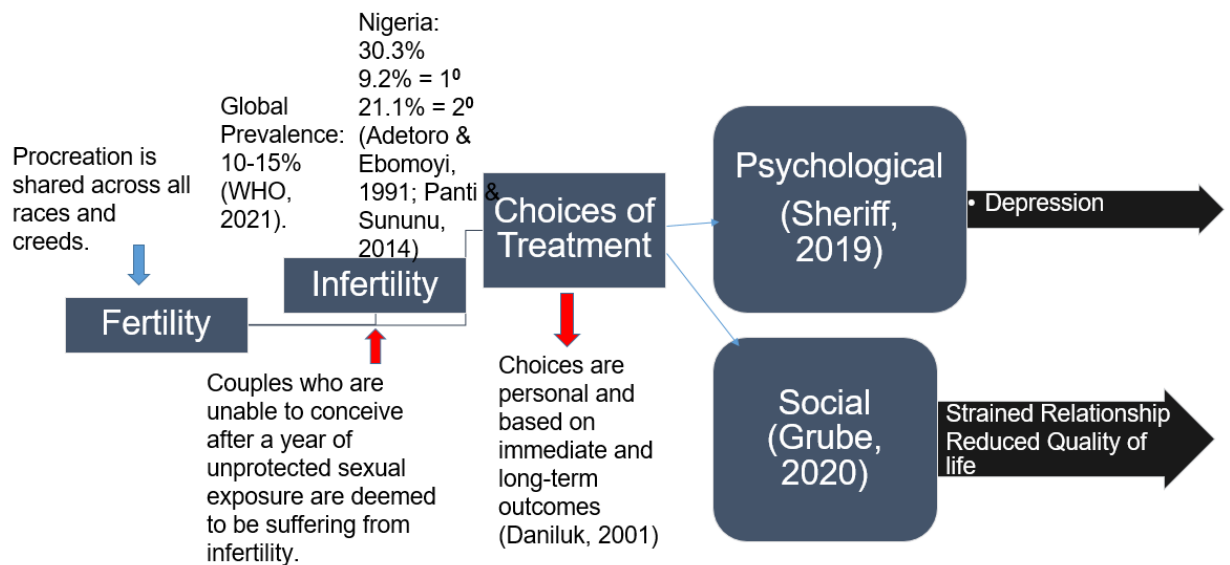
In sub-Saharan Africa, infertility is not simply a medical condition; it is a socially contentious and profoundly stigmatized issue (Ergin, et al., 2018). The region's sociocultural norms prioritize childbearing, particularly in patriarchal societies where motherhood is essential to a woman's identity and social status. Women experiencing infertility often face social isolation, conflict in marriage, and social exclusion (Berger, Paul, & Henshaw, 2013). James et al. (2018), demonstrate that infertile couples frequently explore all available avenues for conception, regardless of external opinions concerning their treatment decisions. Their options may extend beyond what is considered acceptable or within the confines of social norms. Providing increased hope and heightened expectations is essential, regardless of prior experience with the treatment format or the nature of the treatment. Bukar, Audu, Usman, & Massa (2012) indicate that additional factors, including presumptive causes and costs, affect fertility care-seeking behaviour.

Nigeria exemplifies the intersection of cultural stigma, gender dynamics, and progress in infertility treatment within the African context. In Nigeria, children are considered essential for the perpetuation of lineage, social affirmation, and support in old age, particularly within rural and traditional communities (Lazard et al., 2019). Consequently, infertility has substantial consequences, particularly for women. In certain regions of Nigeria, an infertile woman whose husband cannot afford the costs of fertility treatment is forced to live with and

serve the healer for an agreed-upon term to pay off their healthcare costs (Obinna, 2012). In other instances, patients' daughters are occasionally married to the traditional healer (Obinna, 2012). Nigerian couples facing infertility often endure emotional distress, marital strain, and challenges to their identity (Esan et al., 2022).

Nigeria has experienced advancements in recent years, evidenced by the proliferation of private IVF clinics and heightened awareness of reproductive health issues; however, access to these services remains inconsistent. A considerable number of Nigerians cannot afford the higher costs associated with ART procedures, typically incurred as out-of-pocket expenses. Public health facilities infrequently provide infertility services, indicating a wider disregard for reproductive health issues beyond family planning, maternal health, and child health. However, those who do receive infertility treatment report improved well-being and restored social standing following successful conception (Uriko, 2020). However, psychological support remains underdeveloped, highlighting the critical need for integrated emotional care in infertility services.

Consultations with fertility experts, traditional healers or medical herbalists/diviners, prayer centres, and clergy are examples of common fertility treatment choices in Ibadan, Nigeria. According to Foster (1996), herbalists and diviners are the two primary types of traditional healers researched in Nigeria. Traditional herbalists offer everyday medicines that facilitate conception by removing potential physical obstacles. Similar to priests, diviners explore their patients' subconscious minds to look for hurdles to conception, whether they be psychological or spiritual. Figure 1 presents a visual representation of infertility in Nigeria, illustrating the prevalence rates of primary and secondary infertility, treatment choices, and associated psychosocial effects.

**Figure 1***Visual Representation of the Project's Introduction*

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Other forms of complementary medicine, including acupuncture, homoeopathy, osteopathy, and chiropractic (Weiss, 2011), are seldom practised in Nigeria and are still in the process of integration into the health system (Obijiofor, 2002). The availability of numerous treatment alternatives has also led to the practice of "healer shopping," in which a patient seeks therapy from different clerics without first consulting their primary caregivers (Adetunji, 1996). Traditional native healers or herbalists appear to have been the primary providers of reproductive care in most local villages and towns in Nigeria for quite some time. Even when modern medical practitioners are available, traditional healers tend to be the preferred providers of healthcare (Ebigbola, 2000; Obinna, 2012).

A significant body of academic research has investigated diverse psychosocial and cultural aspects of infertility, covering social support networks, societal perceptions, stigma, quality of life, and experiences with modern reproductive technologies. Significant contributions include Montgomery & Terrion's (2023) examination of peer support motivations among IVF patients, Ergin's (2018) investigation of familial attitudes to infertility, and Uriko's (2020) study of psychological adaptation concerning reproductive challenges. Regionally, investigations such as Esan's (2022) analysis of stigma and quality of life among women in Southwestern Nigeria, Nieuwenhuis et al.'s (2009) evaluation of the gender-based impacts of infertility in Ibadan, Well's (2023) research on help-seeking behaviours among African American women, and Hiadzi and Boafo's (2020) study of treatment patterns in Ghana have yielded significant insights into the socio-cultural dimensions of infertility across various contexts.

Despite the expanding body of literature, a substantial gap remains in our understanding of the multifaceted effects of fertility treatment choices, particularly the interplay between medical, traditional, and spiritual interventions, and their broader psychosocial implications for individuals and couples who are navigating infertility. Existing research often views these treatment pathways as discrete or competing domains, overlooking the fact that many patients employ sequential, parallel, or integrative care strategies that are influenced by cultural beliefs, economic constraints, and religious worldviews. This fragmented analytical lens fails to capture the emotional, relational, and existential consequences that accompany such complex care trajectories, as well as the holistic decision-making processes. In response to this lacuna, the present study employs a qualitative exploratory design to investigate fertility care choices and their psychosocial implications

among couples in Ibadan, Nigeria. In this context, pluralistic healing systems are deeply embedded in reproductive health-seeking behaviour. This research emphasizes lived experiences and contextual narratives, promoting a comprehensive, culturally aware understanding of infertility that transcends medical reductionist thinking and fosters a more sophisticated, individual-focused dialogue on reproductive health.

### **Statement of Problems**

In Ibadan, Nigeria, infertility goes beyond a medical issue, emerging as a widespread social and cultural crisis that greatly affects couples, especially women, who face societal blame and stigma. The inability to conceive disrupts marriage stability, reduces social status, and often leads to psychological distress, ostracism, and even divorce (Ahamefule & Onwe, 2015; Dyer, 2007). In this sociocultural setting, childbearing is crucial to marriage, serving as a means to secure lineage and inheritance, gain prestige, and confirm womanhood (Woolman, 2006). Desperate to become parents, infertile couples in Ibadan navigate a complex range of reproductive options, often moving between medical procedures, spiritual consultations, traditional healing, and religious rituals (Nwosu et al., 2022; Adetunji, 1996; McQuillan, 2004).

The emotional effects of these choices are insufficiently studied, although Gullo (2021) and Kızılkaya (2021) highlight that gender norms, religious beliefs, and socioeconomic limitations worsen the psychosocial strain of infertility in Nigeria. Women, in particular, face increased risks of being labelled as “barren,” accused of witchcraft, or subjected to spiritual cleansing rituals, which deepens their marginalization within families and communities (Kawango, 1995; Ahamefule & Onwe, 2015). Men, although less visibly affected, also experience internal shame and a diminished sense of masculinity, especially in

patrilineal societies where fatherhood equates to social legitimacy. Despite the growth of fertility clinics and increased awareness of assisted reproductive technologies (ARTs) in urban centres like Ibadan, access remains limited due to high costs, inadequate infrastructure, and persistent cultural skepticism towards medical treatments (Jones, 2018; Dunbar & Shultz, 2021). As a result, many couples resort to unregulated or faith-based alternatives, often delaying effective intervention and heightening emotional suffering.

Despite extensive research on the social, medical, and psychological aspects of infertility in Sub-Saharan Africa, such as stigma (Ergin et al., 2018), gender roles (Fapohunda, 2013), help-seeking behaviours (Wells, 2023; Passet-Wittig & Greil, 2021), and quality of life (Barnawi et al., 2020; Esan et al., 2022), there is still a critical gap in understanding how individuals and couples navigate fertility care pathways across medical, spiritual, and traditional domains. Existing research usually portrays these modalities as separate, mutually exclusive options (Abdullahi & Abdullahi, 2020; Abebe et al., 2020; Agarwal et al., 2020; Anyalechi et al., 2019), ignoring the integrative, pragmatic, and meaning-laden ways in which patients combine them. Furthermore, the psychosocial literature on infertility has primarily relied on stress-coping (Domar et al., 2005) or social-ecological models that emphasize conscious decision-making and external pressures, while ignoring the unconscious dimensions of reproductive distress, such as internalized shame, existential anxiety, and intrapsychic conflict, which have a significant impact on care trajectories and emotional well-being. Furthermore, the decision-making process is shaped by the complex interplay between modern medicine, tradition, and religion in ways that are not fully understood. Some couples may prioritize prayer sessions at Pentecostal churches over clinical care, while others may consult native healers who blame ancestral discontent or

spiritual interference for infertility (Nwosu et al., 2022; Adetunji, 1996). These choices are influenced by family pressure, societal expectations, and gender dynamics favouring male reproductive authority (Short, Yang, & Jenkins, 2013). The lack of comprehensive psychosocial support worsens the isolation of affected couples, leaving them vulnerable to exploitation, misinformation, and emotional hardship.

The gap is further intensified by the significant lack of psychoanalytically informed research on infertility experiences in non-Western contexts. Sigmund Freud's model of the psyche provides a comprehensive framework for understanding psychic conflict, defence mechanisms, and the relationship between desire, morality, and reality (Freud, 1900). However, it has seldom been critically adapted to African cosmologies, where notions of destiny, ancestral will, and spiritual causality influence personal agency and emotional experiences (Hiimäe, 2017). There is a pressing requirement for qualitative research that documents the diverse fertility care practices of couples in contexts such as Ibadan and interprets their narratives through a culturally reflexive psychoanalytic perspective. This approach can elucidate how unconscious processes, relational dynamics, and sociocultural imperatives shape the lived experience of infertility. This study addresses the gap by examining the psychosocial implications of fertility care choices through a theoretical and methodological framework that integrates Freudian depth psychology with Yoruba concepts of personhood, healing, and hope.

In addition, gaining insight into the lived experiences of infertile couples in Ibadan is vital for developing culturally sensitive, equitable, and holistic healthcare responses, as reproductive health is a key aspect of the Sustainable Development Goals (SDG 3.7 and 5.6) (Vogel, et al., 2015).

## **Purpose of the Study, Research Aims, and Objectives**

### ***Purpose Statement***

This study explores the psychosocial experiences related to fertility choices regarding treatment among infertile couples in a varied sociocultural context. Guided by four core objectives (1) to examine the key criteria influencing the choice of infertility treatment, (2) to explore the psychosocial consequences of those choices, (3) to investigate the barriers to making informed and optimal decisions, and (4) to acquire a deeper understanding of the medical, traditional, and spiritually focused pathways pursued, this research seeks to illuminate the complex interplay of medical, emotional, cultural, religious, and structural factors that shape reproductive decision-making.

This study aims to provide a comprehensive understanding of infertility by focusing on the experiences of individuals affected by it, as well as insights from healthcare providers, spiritual leaders, and traditional healers. It examines the interplay of personal support, social stigma, economic constraints, and belief systems throughout the fertility journey. The objective is to develop empathetic, inclusive, and culturally responsive models of fertility care that respect the diversity of patient experiences and values.

### ***Research Design and Approach***

This study used a qualitative exploratory research design to gain an in-depth understanding of the psychosocial aspects of infertility treatment choices. Given the complex, subjective, and often stigmatized nature of infertility, a qualitative approach was deemed the most appropriate for capturing the richness of personal experiences, emotional responses, and cultural interpretations that quantitative measures alone cannot fully convey.

The research employed maximum variation purposive sampling to include couples from diverse strata: (a) those receiving hospital-based treatment, (b) those engaged in Traditional/Herbal treatments, and (c) those predominantly relying on Spiritual/Religious interventions. Forty patient participants, aged 18 to 65, were recruited from two public healthcare facilities in Ibadan, Oyo State: State Hospital, Adeoyo, and a Primary Health Centre (Odo-Ona Elewe PHC, Oluyole LGA), as well as a spiritual birthing home and a traditional centre. All participants had a recorded history of infertility and had achieved conception, either naturally or through medical, traditional, or spiritual methods. This sampling strategy ensured the inclusion of participants from diverse sociodemographic backgrounds, such as age, education, income level, and treatment pathway, thereby enhancing the transferability and contextual depth of the findings.

Additionally, ten key healthcare providers were invited to offer professional and cultural perspectives on fertility care. This group consisted of 5 fertility specialists from two IVF clinics, 3 clergy from recognized spiritual birthing centres, and 2 traditional healers from an established indigenous healing centre. Fertility specialists were identified through clinic directories and professional networks. At the same time, traditional healers and religious leaders were located through local informants, Google Maps, and phone directories, with preliminary assessments of their relevance and experience. The inclusion of various provider types enabled a multifaceted examination of how medical, religious, and traditional systems conceptualize and respond to infertility.

Semi-structured, in-person interviews were conducted to collect data, utilizing open-ended questions designed to elicit detailed narratives about treatment choices, emotional challenges, social pressures, decision-making processes, and perceived outcomes. Fertility

doctors were asked twelve open-ended questions, while individuals who have successfully overcome infertility were asked fourteen open-ended questions. Clergies and traditional practitioners were also asked twelve open-ended questions. (See Appendix 1). These open-ended questions elicit thoughtful and varied responses from participants, which helps to collect the necessary data for analysis.

Before participating, all participants gave their voluntary informed consent, and ethical considerations were followed throughout the research process. A target sample of 20 to 30 infertile couples, comprising 40 to 60 individuals, was sought. Recruitment proceeded until theoretical saturation was attained, which is the point at which no new codes, themes, or insights related to decision-making emerge from the data. This is a standard process in qualitative research. The deliberate use of a larger sample is consistent with qualitative research principles, which value contextual richness, cultural variation, and narrative completeness over statistical generalizability (Creswell, 2014).

Interviews were audio-recorded (with permission), transcribed verbatim, and thematically analyzed using inductive and deductive coding strategies (Abraham, 2015). The research objectives served as the foundation for the initial codes, while additional themes emerged organically through the data. The study sought to identify patterns, contradictions, and underlying meanings regarding treatment selection, psychosocial impact, access barriers, and the role of faith and tradition in reproductive decision-making.

This methodological approach ensures that the findings are not only empirically valid but also socially and culturally relevant. By combining patient and expert perspectives, the study

provides a comprehensive, multi-stakeholder understanding of infertility care that can inform clinical practice, policy development, and future reproductive health research.

### ***Significance of the Research Study and Potential Benefits***

This study fills a critical gap in reproductive health research by investigating the multidimensional effects of infertility treatment choices, including medical, traditional, and spiritual, as well as their psychosocial consequences for couples in Ibadan, Nigeria. While previous research has focused on stigma, social support, psychological adjustment, and treatment access (Golombok et al., 2017; Köse et al., 2020; Araoye, 2003; Thorn, 2009; Dyer, 2007; Ullah et al., 2021), few studies have taken a comprehensive, qualitative approach to understanding how people navigate pluralistic healthcare systems and how these choices affect their emotional and relational well-being. The study generates nuanced insights into the complexity of infertility care choices in a culturally rich but resource-constrained setting by using an exploratory design that focuses on lived experiences. It discloses that many decisions are influenced not by clinical evidence, but by word-of-mouth referrals, social pressure, and spiritual conviction (Bunting et al., 2013; Blakemore et al., 2020), emphasizing the fragmented nature of the fertility care ecosystem and the absence of coordinated, culturally competent services.

Despite limitations such as recall bias, sample specificity, and representativeness, the study's methodological and ethical rigour contributes to its credibility and relevance. The findings have important implications for clinical practice, policy development, and future research, as they advocate for integrated, culturally competent fertility services that honour

diverse healing traditions while promoting timely, evidence-based treatment. This research advances academic knowledge while also encouraging empathy, challenging stigma, and contributing to more equitable and humane reproductive health outcomes.

This study provides several innovative and important insights into the current understanding of infertility (Inhorn & Van Balen, 2002), fertility care decision-making, and psychosocial well-being, especially in the under-explored context of urban Nigeria. A key contribution of this research lies in its exploration of the "unknown facets" of infertility decision-making (Whiteford & Gonzalez, 1995), especially in settings where medical services are inaccessible, unaffordable, or distrusted. This research enhances comprehension of infertility by prioritizing the perspectives of infertile couples and care providers within a diverse healthcare environment, where medical, traditional, and spiritual systems coexist and frequently intersect, contrasting the predominance of Western medical viewpoints in global literature.

One of the most innovative contributions is the empirical documentation of a sequential, hybrid treatment pathway. In this pathway, individuals systematically transition from medical clinics to prayer camps and traditional healers. This process is not a rejection of modern medicine, but rather a strategic, culturally coherent response to unmet emotional and spiritual needs when clinical interventions are inaccessible or fail. This challenges the conventional binary dichotomy of "modern vs. traditional" care and instead offers a dynamic, multifaceted model of reproductive resilience influenced by hope, stigma, and socioeconomic limitations.

A further significant contribution is the recognition of spiritual coping as an essential, non-compensatory aspect of psychological resilience. The study illustrates how prayer and

divine hope serve as existential anchors that maintain emotional well-being throughout treatment cycles, even in the presence of repeated failure, rather than perceiving faith-based interventions as substitutes for medical care. This reframes spiritual engagement as a legitimate and adaptive coping mechanism within a high-stress, uncertain fertility journey, rather than as irrationality.

### Research questions (RQ)

This study takes an exploratory qualitative approach, so the focus is on research questions rather than hypotheses. The primary goal is to understand fertility treatment choices and the psychosocial consequences for infertile couples in Ibadan, Nigeria

### Central Questions

Research Question 1: Which factors influence infertile couples' treatment decisions?

Research Question 2: What are the psychological and social experiences of people facing infertility challenges?

### Sub-questions

Research Question 2a: What's it like to struggle with infertility?

Research Question 2b: What is the lived or personal experience of infertile couples as a result of their treatment decisions?

Research Question 2c: How do those who treat infertile couples explain these challenges?

## **CHAPTER 2: LITERATURE REVIEW**

Online databases and scholarly periodicals, including ProQuest eJournal, ProQuest ebooks, EBSCO, Google Scholar, Academia Letters, and ResearchGates, comprise the search strategy for this literature review. The search terms cover psychological and social consequences, infertility, and fertility. The search was mostly restricted to the past five years; however, it was expanded to include a few of the documented peer-reviewed articles on the impact of infertility on couples since 1900.

### **Theoretical Framework for Infertility**

Fertility, death, and migration have long been considered the three fundamental pillars upon which the continued existence of mankind as a resident of planet Earth rests (Turkes, 2019). Fertility has the widest and most comprehensive theoretical foundation of the three. While biological and reproductive knowledge has evolved dramatically, the conceptual foundation of infertility remains theoretically challenging. Most existing definitions fail to establish the required or sufficient elements, necessitating a framework that moves beyond biological determinism (De Bruijn & De Bruijn, 2006). Even if various logic attempts to uncover the essence of the infertility panoramic box, most of these ideas possess fundamental flaws in their basic conceptual structure. Most definitions of infertility fail to establish either required or sufficient elements. A survey of the academic literature on fertility decision-making identifies four important frameworks: basic adaptations, financial self-interest, social identity integration, and image affirmation (Micheli, 1988). These are social and economic theories that explain how individuals make reproductive choices about broader life objectives

and societal norms. Nonetheless, these frameworks require improved integration with modern understandings of infertility as either a disease-based or non-disease model, which has substantial implications for treatment choices and their psychosocial consequences.

**Freud's Psychoanalytic Theory (1900):** At the inception of the 20th century, Sigmund Freud (1900) developed a theory that aimed to elucidate human behaviour through unconscious drives (Freud, 1900).

The goal was to uncover the hidden motivations driving subconscious decisions, particularly those involving sexuality and fertility. Sigmund Freud proposed that unconscious drives, early childhood experiences, and internal conflicts influence human behaviour. His tripartite model of the psyche (id, ego, and superego) sheds light on how subconscious motivations can influence fertility choices regarding treatment.

This theory's non-disease alignment explains emotional barriers and avoidance behaviours associated with fertility that do not have a biological cause. This theory is used in psychotherapy to identify hidden fears or traumas that influence treatment-seeking behaviour. Despite this, it lacks empirical validation and emphasizes the sexual basis of behaviour. However, it highlights the importance of psychosocial support in infertility care.

**Maung's Theory (2019):** The theoretical framework of fertility is riddled with controversy, featuring a vast mixture of ideas that frequently lack clarity or broad scope. Leridon (1992) characterizes the scenario as an abstract expressionist artwork, while Van de Kaa (1996) presents it as an evolving narrative composed of multiple sub-narratives from various pertinent perspectives. Marchbanks et al. (1998) and Jacobson et al. (2018) asserted that definition is fundamental to infertility research. Maung (2019) expanded the definition of

infertility to include both disease and non-disease models, which serves as the foundation for this project.

Maung (2019) builds upon the foundational research of Abrao, Muzii, & Marana (2013), Tao (2012), Wilcox (2010), Appleby, Jennings, & Statham (2012), and Lo & Campo-Engelstein (2018) to classify infertility into four categories: anatomical, senescent, relational, and social. This model extends traditional definitions to encompass non-biological factors, including relationship dynamics and societal barriers. The theory, introduced in 2019, categorizes infertility into four distinct subtypes to represent its multifactorial nature. It seeks to extend beyond conventional WHO definitions by incorporating non-biological, social, and relational factors. Anatomical types, including biologically rooted conditions such as endometriosis and blocked tubes, as well as senescent types characterized by age-related fertility decline, align with biological and pathological models, representing a disease framework of infertility (Abrao et al., 2013). In contrast, relational types (Tao, Coates, & Maycock, 2012), which involve incompatibility between partners despite normal individual fertility, and social types, covering non-biological barriers like LGBTQ relationships, legal restrictions, or cultural norms, fall under the non-disease framework of infertility.

This is significant as it guides personalized treatment plans and supports advocacy for marginalized groups, such as LGBTQ+ couples (Farr, Vázquez, & Patterson, 2020). While acknowledging the comprehensive nature of this theory, which includes systemic inequities, implementing relational and social subtypes within clinical settings presents significant challenges.

**Social Identity Integration and Image Affirmation (Micheli, 1988):** Micheli (1988) argues that parenthood is essential for personal identity and social validation, which in turn influences decisions regarding the pursuit or avoidance of infertility treatment. The foundation of this theory is the concept of social acceptance and belonging. The theory employs parenthood as a symbol of adulthood and success, as well as the apprehension of being perceived as incomplete or abnormal in the absence of children.

Indirectly, the disease framework of the theory influences treatment choice through social pressure, whereas the non-disease framework emphasizes societal expectations and stigma by concentrating on the psychosocial factors that influence fertility decisions. Its objective is to clarify the reasons why certain individuals, such as post-menopausal women or aged men, choose aggressive treatments, despite the low likelihood of success.

The drawback is its capacity to overlook individual differences in social conformity, which is often accompanied by an elevated risk of isolation, particularly in societies that place a high value on motherhood. It emphasizes the role of culture in the development of fertility narratives.

**Demographic Transition Theory (Kirk, 1996; Handwerker, 2019):** Kirk (1996) proposed this theory, which elucidates the global transition from high to low fertility rates as a result of industrialization, education, and urbanization. Handwerker (2019) has since further developed this theory. It was associated with the empowerment of women, urbanization, education, and industrialization.

Constructs: Fertility decreases as societies evolve economically and culturally, and there is a transition from large families that provide labour to smaller families that prioritize education.

The non-Disease Framework elucidates voluntary childlessness or delayed childbearing, as well as the increasing demand for Artificial Reproductive Therapy (ART). Conversely, the disease Framework is not directly applicable unless age-related fertility decline is taken into account.

It is most effectively utilized in the context of age-related or senescent infertility and evolving family structures.

The primary criticism is that it fails to adequately consider the role of individual agency in fertility decisions. However, it is a significant theory because it conceptualizes infertility as a component of a more comprehensive socioeconomic transformation.

The influence on treatment choices includes delays in childbearing and an increase in the demand for fertility treatments. Such delays may increase the visibility and acceptance of ART.

The theory's psychosocial implications include an increased anxiety that women may experience as a result of societal narratives surrounding "biological clocks" and the pressure to "catch up" biologically after prioritizing their careers.

**Economic Decision Models (Becker, 1997):** Gary Becker's theory views children as financial investments, assessing costs, benefits, and opportunity costs in family planning. It was implemented in response to changing perceptions of children as economic assets (financial self-interest) rather than emotional investments (Foley, 2022). It sought to apply utility theory to family planning decisions.

Children are seen as investment assets with long-term returns (economic, emotional, and

social), while acknowledging the cost-benefit analysis of reproduction, which includes time, financial resources, and opportunity costs.

The non-disease alignment of this theory prioritizes voluntary childbearing decisions and cost-related postponements, emphasizing autonomy and control over fertility. The disease framework is less useful unless cost barriers to treatment access are considered. This economic model is relevant because it predicts people's likelihood to seek treatment based on perceived benefits versus costs. It also ensures that people with low incomes can avoid costly procedures like IVF and helps to formulate policies that improve access to affordable fertility care.

However, it ignores the emotional and cultural dimensions of reproduction. The psychosocial implications of this theory for infertility suggest that financial stress can cause anxiety, depression, and perceptions of inequality, while decisions may appear to be externally imposed rather than internally driven.

However, the adoption of economic theory has largely remained frozen in the original economic principles of the past, with little progress seen since the 1970s, when the theory of children's real worth was developed.

**Bongaarts' Theory on Fertility Processes and Patterns (2022):** This theory, proposed by Bongaarts & Hodgson (2022), identifies proximate determinants of fertility (e.g., contraception, lactation, union formation) to elucidate population-level trends. It corresponds with the Disease/Non-Disease theoretical framework by addressing both behavioural choices and biological disruptions.

Their perspectives were grounded in data from World Fertility Surveys (WFS) and Demographic Health Surveys (DHS), to model fertility trends through proximate determinants (e.g., contraceptive use, postpartum infecundability). This is especially beneficial in public health initiatives and family planning programs (Christopher, 1991).

The concept in this theory highlights a framework that explains how behavioural and biological determinants influence infertility, and additionally, employs proximate variables such as marriage, contraception, abortion, and lactational infecundability to elucidate population-level trends (Yland, et al., 2020).

Regarding the Influence on Treatment Decisions: The theory is applicable for interventions at the population level, such as enhancing access to contraception or infertility treatment.

Although it may not directly influence individual treatment, it informs public health policy.

It helps contextualize infertility within broader demographic shifts and can reduce stigma by framing fertility issues as common and socially influenced from a psychosocial perspective.

In summary, Infertility represents a complex phenomenon that includes biological, psychological, social, and economic dimensions. The theories examine the interdisciplinary frameworks employed to analyze fertility decision-making and infertility. This study integrates theories from psychology (Freud), sociology (Micheli), economics (Becker), demography (Bongaarts, Kirk), and clinical medicine (Maung) into a comprehensive model of infertility. Theories related to the disease and non-disease paradigms of infertility were assessed, including their research and practical applications, criticisms encountered, and their significance in current understanding and treatment methodologies.

Traditionally examined from a medical perspective, recent research highlights its psychosocial and cultural aspects (Grill, 2023). Thus, these significant theoretical models have influenced our comprehension of fertility decisions, applying them within the contexts of disease-based (biological) and non-disease-based (psychosocial, relational, or structural) infertility. The synthesis of these theories establishes a strong basis for enhancing patient care, informing policy development, and guiding future research initiatives.

### **Conceptual Framework**

This conceptual framework is multidisciplinary and incorporates several key theories to explain the psychosocial implications of fertility treatment decisions as well as their rationale. The conceptual framework for infertility treatment choices (medical, traditional, spiritual) and their psychosocial consequences, derived from specific theories from psychology, sociology, economics, demography, and clinical medicine, emphasizes the importance of moving beyond a solely medical model of infertility and towards a holistic, culturally sensitive, and patient-centred approach.

This conceptual framework, based on the theories outlined in the Theoretical Framework, comprises: Key theories and their contributions, Integration with a conceptual framework, Research questions addressed, and Conclusion.

#### **Key Theories and Contributions**

Freud's Psychoanalytic Theory (1900) is based on psychology and emphasizes unconscious motivations and emotional barriers; it explains why people avoid medical treatment due to

hidden fears or trauma. Psychosocial effects include mental health issues such as anxiety, depression, and identity crises, as well as the need for psychosocial support in the care setting.

In Clinical Medicine, Maung's theory (2019) broadens the definition of infertility to include anatomical, senescent, relational, and social types while advocating for inclusive and personalized treatment plans. Psychosocially, it addresses systemic inequities, empowers marginalized groups (e.g., LGBTQ+ individuals), and enhances overall patient care.

Micheli's Social Identity Integration and Image Affirmation (1988) emphasizes parenthood as central to personal and social identity, influencing decisions in the face of societal pressure and stigma. This, in turn, has profound psychosocial consequences, including the fear of social exclusion, internalized stigma, and cultural narratives about completeness through parenthood.

Kirk's Demographic Transition Theory (1996), as well as Handwerker's (2019), explain fertility decline with socioeconomic development and link delayed childbearing to increased ART use. Nonetheless, the apprehension regarding "biological clocks" and societal expectations for women to reconcile career and motherhood constitutes a significant drawback of this theory.

In addition, Bongaarts' Proximate Determinants Theory (2022) identifies behavioural and biological factors that influence population-level fertility and informs public health

interventions. It also normalizes infertility as a common and socially influenced condition, thereby reducing social stigma.

Becker's Economic Decision Model (1997) regards children as investments, guiding treatment-seeking behaviour through cost-benefit analysis. This causes financial stress, unequal access, and emotional burden due to economic constraints.

### **Integrated Conceptual Framework**

This conceptual framework integrates multidisciplinary theories to better understand the complex interplay of individual, social, structural, and cultural factors that influence fertility treatment decisions and their psychosocial outcomes. The model, which draws on foundational theories from psychology (Freud, 1900), economics (Becker, 1997), clinical medicine (Maung, 2019), sociology (Micheli, 1988), and demography (Bongaarts & Hodgson, 2022; Kirk & Handwerker, 1996-2019), describes how these dimensions collectively shape individuals' and couples' fertility care-seeking behaviour, as well as the emotional and social consequences of infertility.

#### **A. Influencing Factors**

##### **1. Individual-Level Determinants.**

At the individual level, several key psychological, economic, and medical factors significantly influence decision-making regarding fertility treatments:

**Psychological Condition:** According to Freud's psychoanalytic theory (1900), unconscious

motivations, early life experiences, and internal conflicts can influence perceptions of infertility and willingness or reluctance to seek treatment. Fear, shame, or unresolved trauma are examples of emotional barriers that may prevent people from engaging with medical interventions.

**Economic Capacity:** Using Becker's economic decision-making model (1997), people weigh the financial costs and perceived benefits of different treatments. Economic constraints frequently influence whether patients pursue high-cost medical procedures such as IVF or opt for less expensive traditional or spiritual alternatives.

**Medical Diagnosis:** Maung's expanded definition of infertility (2019) acknowledges both biological and non-biological causes, ranging from anatomical and senescent conditions to relational and socially induced forms of infertility, thereby informing personalized and inclusive treatment strategies.

## 2. Social and Cultural Influences.

Infertility is deeply embedded in sociocultural contexts, where expectations and norms place significant pressure on affected individuals.

Micheli's theory of social identity integration and image affirmation (1988) proposes that parenthood is central to personal identity and social validation. Individuals may choose aggressive or culturally sanctioned fertility interventions, even if success rates are low, in order to conform to familial expectations.

**Cultural norms and beliefs:** People's attitudes towards motherhood, gender roles, and reproduction influence whether they seek medical, traditional, or spiritual treatments. Due to the stigma associated with clinical diagnoses or distrust of Western medicine, many communities prefer traditional or faith-based healing.

Community Support Systems: The availability of peer or community support networks can either facilitate or impede access to fertility care, particularly in collectivist societies where reproductive decisions are collective rather than individual.

### 3. Structural and Demographic Determinants

Broader systemic and demographic forces shape fertility treatment pathways:

Access to Healthcare Services: Structural disparities in healthcare infrastructure, insurance coverage, and geographic availability of assisted reproductive technologies (ART) determine whether people receive timely and appropriate care.

Policy and Legal Environment: Regulatory frameworks governing fertility treatments, such as surrogacy laws, LGBTQ+ access, and funding mechanisms, can either enable or limit treatment options.

Demographic trends: According to Bongaarts' proximate determinants model (2022) and Kirk's demographic transition theory (1996), societal shifts toward delayed childbearing, urbanization, and increased female education (Bowles & Klein, 1983) have all contributed to an increase in demand for fertility treatments, particularly among women balancing career advancement and biological timelines.

#### B. Fertility Treatment Modalities

The framework identifies three main modalities through which individuals can seek fertility intervention:

Medical Treatments: Evidence-based clinical interventions include in vitro fertilization (IVF), intrauterine insemination (IUI), hormonal therapy, anatomical correction surgery (Meng, Alom, Sharma, & Köhler, 2020), and gamete donation. These are typically based on medical

diagnosis and follow evidence-based protocols.

Traditional treatments include indigenous or locally rooted practices like herbal remedies, dietary changes, and ritualized cleansing ceremonies. Cultural beliefs frequently influence and pass down these traits through generations.

Spiritual treatments are faith-based interventions that include prayer, pilgrimage, faith healing, and religious rituals designed to invoke divine intervention. Spiritual approaches are frequently sought alongside or as alternatives to medical or traditional methods, especially in highly religious communities.

### C. Psychosocial outcomes.

The intersection of influencing factors and treatment choices eventually results in a range of psychosocial consequences, which are classified into three domains:

#### 1. Mental health outcomes

**Emotional Distress:** Infertility is linked to higher rates of depression, anxiety, and chronic stress, which is often exacerbated by repeated treatment failures or prolonged uncertainty.

**Identity Disruption:** People may experience a crisis of self-worth or purpose, particularly in cultures where parenthood is central to adult identity (Freud, 1900; Micheli, 1988).

#### 2. Social Relationship Dynamics.

Fertility issues can cause interpersonal conflict, decreased intimacy, and feelings of blame or resentment within relationships.

**Social Isolation:** Stigmatization and exclusion are possible, especially in societies where childlessness is considered deviant or shameful.

#### 3. Cultural Identity and Integration.

**Self-perception:** Infertility can undermine one's sense of belonging and completeness,

particularly in cultures that associate womanhood or manhood with reproductive capacity.

**Social Integration or Exclusion:** Depending on societal attitudes, individuals may face marginalization or find solidarity within support or advocacy groups.

**Stigma and Labelling:** Infertility, particularly in traditional societies, can lead to long-term social stigma, exacerbating mental health issues and discouraging help-seeking behaviours.

This integrated conceptual framework offers a comprehensive lens through which to understand the multifaceted nature of fertility treatment decisions and their psychosocial consequences. By basing the analysis on established theoretical perspectives from various disciplines, it emphasizes the importance of taking an interdisciplinary, culturally sensitive, and patient-centered approach to infertility care. This model serves as a foundation for future research, policy development, and clinical practice aimed at improving the lives of people dealing with fertility issues.

#### Addressing Research Questions

RQ1. What factors influence an infertile couple's treatment decisions?

This study investigates the multifaceted determinants influencing infertile couples' treatment decisions, contextualizing the analysis within several key theoretical frameworks and empirical insights.

#### Individual Beliefs (Freud, 1900 and Maung, 2019)

Freud's psychoanalytic perspective emphasizes the importance of unconscious desires, personal anxieties, and reproductive capability as they relate to individual identity and self-worth. Maung broadens this perspective by investigating how personal narratives and

meaning-making processes influence decisions to pursue, delay, or refuse fertility treatment. Thus, individual beliefs about parenthood, bodily integrity, and moral considerations play an important role in treatment decisions.

#### Economic feasibility (Becker, 1997)

From a microeconomic standpoint, Becker's family theory places fertility decisions within cost-benefit analyses, in which couples weigh the economic costs of treatment (e.g., medical expenses, opportunity costs) against the perceived benefits of parenthood. High treatment costs, a lack of insurance coverage, and income disparities all have a direct impact on access and adherence to infertility interventions.

#### Social Expectations (Micheli, 1988)

Micheli emphasizes how social norms and expectations about family formation, gender roles, and marital fulfilment place significant pressure on infertile couples. Conformity to societal ideals of parenthood can drive decisions to seek treatment, sometimes over personal reservations or financial constraints.

#### Cultural and demographic context (Kirk, 2019; Bongaarts & Hodgson, 2022)

Kirk and Bongaarts emphasize the cultural and demographic contexts that influence fertility behaviours and treatment decisions. Religious doctrines, ethnic identity, community structures, and local perceptions of infertility all have an impact on both the social acceptability of seeking medical help and the specific paths couples take.

These perspectives show that treatment decisions are not just medical or financial, but also psychological, cultural, social, and economic.

RQ2. What are the psychological and social experiences of people facing infertility challenges?

The second research question looks at people's lived experiences with infertility, specifically how psychological distress and social dynamics intersect to shape their daily realities. The key themes include:

#### Emotional Stress and Identity Issues (Freud, 1900)

According to Freud's work, infertility can undermine core aspects of identity and self-concept, resulting in profound feelings of inadequacy, loss, and low self-esteem. Individuals frequently experience grief as well as a shift in their personal and relational identities.

#### Stigma and social marginalization (Micheli, 1988)

Micheli's research shows that infertile people frequently face social stigma, exclusion, and labelling. In cultures where fertility is closely associated with marital success and social status, childlessness can lead to marginalization and strained social relationships.

#### Anxiety around biological clocks (Kirk, 2019)

Kirk explains how temporal pressures, particularly for women, exacerbate anxiety. The fear of ageing and declining fertility creates psychological urgency, which can lead to distress, relationship tension, and potentially rash or costly treatment decisions.

Stress due to financial burden (Becker, 1997)

According to Becker's economic insights, the financial strain associated with repeated, costly fertility treatments significantly raises stress levels. The economic burden can amplify feelings of despair and hopelessness, especially if treatments fail.

Systemic inequities and lack of support (Maung, 2019).

Maung's work focuses on the systemic barriers that marginalized groups face, such as limited access to affordable care, discriminatory healthcare practices, and cultural insensitivity. The lack of comprehensive support systems exacerbates psychological distress and promotes social isolation.

Through these lenses, the study reveals that infertility is more than just a medical condition; it is also a profound psychosocial experience shaped by complex interactions of individual emotions, social dynamics, and structural factors.

### Summary

This multidisciplinary conceptual framework synthesizes essential theories to elucidate the factors influencing individuals' fertility treatment decisions and the potential psychosocial repercussions of these choices. This emphasizes the necessity of transcending a solely medical model of infertility in favour of a holistic, culturally sensitive, and patient-centred approach.

Through the incorporation of:

Freud's psychological insights, Maung's expanded definition of infertility, Micheli's emphasis on social identity, Becker's economic lens, and Bongaarts' and Kirk's demographic

perspectives collectively provide a comprehensive framework for: Enhancements in clinical practice, Development of public health policy, Directions for future research, and Education and counselling for patients

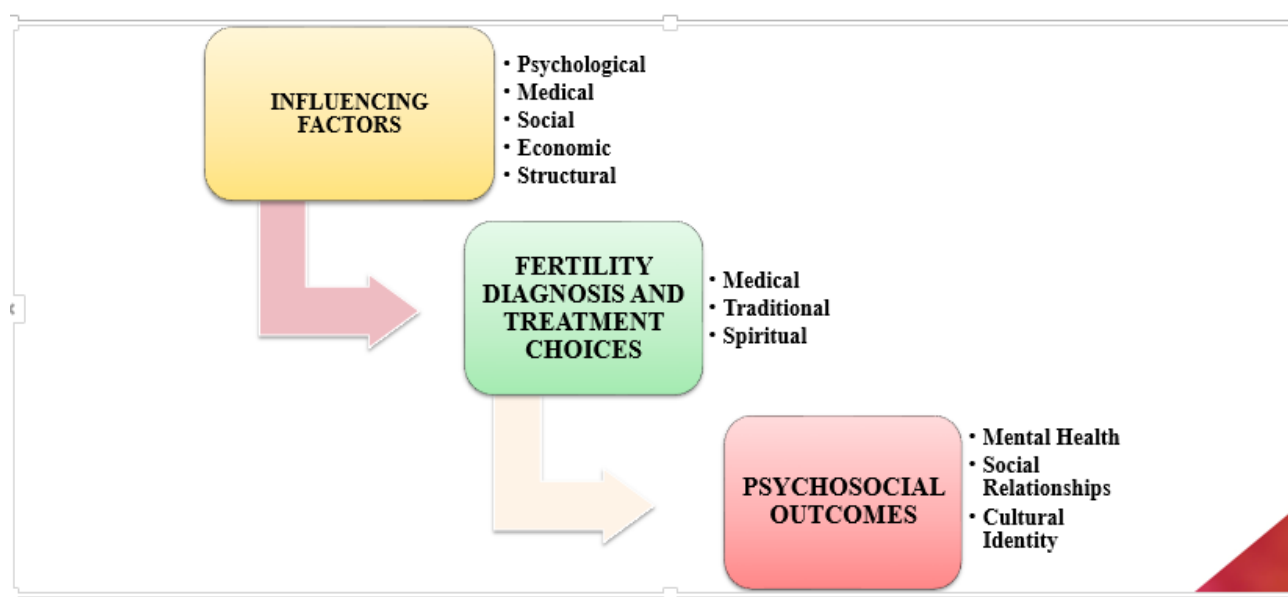
Figure 2 presents the conceptual framework that supports this study. It demonstrates how the interaction of socio-cultural, economic, and psychological factors affecting infertility-related decision-making collectively shapes treatment choices, which subsequently influence the psychosocial outcomes experienced by those affected.

The study's conceptual framework shows that decisions regarding infertility treatment arise from a dynamic interaction of contextual and individual factors, which subsequently affect psychosocial well-being.

**Figure 2**

*Conceptual Framework*

## Conceptual Framework



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### *Controversies in the Infertility Theoretical Framework*

#### *Should Infertility be Defined as a Disease or Not?*

Infertility is a disease that affects both men and women and has significant implications for government financing and healthcare reform. According to Maung (2019), there is a theoretical contradiction over the classification of infertility as a disease, which has enormous repercussions, particularly regarding government financing of infertility. The concept of a disease is founded on three philosophical pillars: naturalistic theories (Kendell, 1975), normativist theories (Engelhardt, 1986), and hybrid theories (Reznek, 1987).

These theories have their criticisms, such as the hybrid theory medicalizing all diseases, while the normativism theory is based on the premise that diseases are supposed to be value-neutral. Schramme (2007) notes that ignoring the power of values in health and disease in naturalistic theory does not reflect reality. However, Marchbanks et al. (1989) and Jacobson et al. (2018) concluded that definition is paramount in infertility research, as a consensus definition ensures uniformity and clarity of objectives.

The World Health Organization defines infertility as the inability of a couple to conceive after one year of unprotected sexual intercourse, which is exclusively anatomical and physiological. Maung (2019) classifies cases of infertility into four subtypes: anatomical infertility, senescent infertility, relational infertility, and social infertility. This classification does not correspond to how infertility cases are categorized in clinical theory and practice, but highlights challenges that are theoretically pertinent to infertility's classification as a

disease.

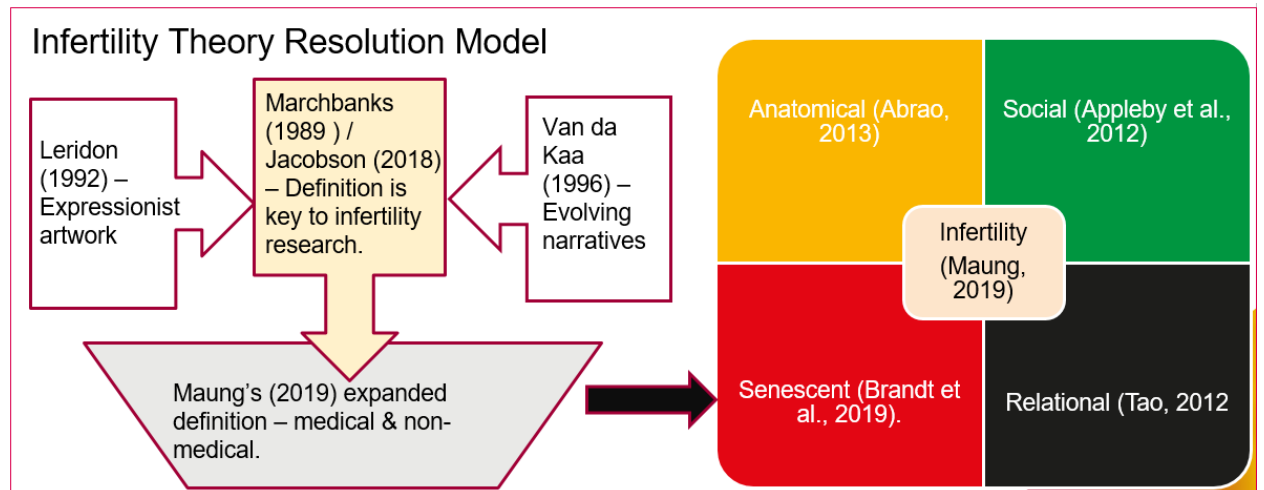
This classification also emphasizes the causes of the infertility problem, fostering conscious awareness that allows for informed treatment decisions and a reliable coping strategy. For example, a couple experiencing senescent infertility may be more likely to choose Artificial Reproductive Technology due to their awareness of the possibility of declining fertility as they age.

Figure 3 presents an innovative model for infertility resolution, synthesized from the theoretical perspectives of Marchbank et al. (1989) and Jacobson et al. (2018). This model aims to create a consensus-driven, inclusive definition of infertility that underpins a comprehensive and equitable framework. Maung (2019) critically analysed and broadened the concept of inclusivity in defining infertility, introducing a typology of four distinct subtypes intended to effectively encompass individuals from various sociocultural, gender, and relational backgrounds. This typology enhances the diagnostic and experiential understanding of infertility while also guiding culturally sensitive policy and clinical practice. (See figure 3).

**Figure 3**

*Theoretical Framework - Disease and Non-disease Classification of Infertility*

Source: Author's original diagram



### **Overview of Fertility Care Choices: A Multifaceted Decision-Making Landscape**

Infertility treatment decisions are rarely made alone. Instead, they appear at the intersection of biological necessity, emotional readiness, financial capacity, cultural expectation, patriarchal decision, and personal belief systems (Fainberg & Kashanian, 2019; Agarwal et al., 2020). Understanding why couples choose one path over another necessitates looking beyond clinical algorithms and into the lived experiences of those facing reproductive challenges.

At its core, the decision-making process begins with diagnosis, a critical phase that establishes the course for subsequent actions. According to McLaren (2012), Schlegel et al. (2021), and

Pathak et al. (2020), infertility evaluation entails a systematic assessment of both partners, including history-taking, physical examination, laboratory tests, and imaging. These steps seek to identify underlying causes, such as ovulatory disorders (e.g., PCOS [Dapas & Dunaif, 2022]), tubal blockages (Anyalechi, et al., 2019), male factor infertility (low sperm count/motility), or unexplained aetiologies (Heinonen & Pystynen, 1983).

However, diagnosing is not a neutral action. As Pierik et al. (2000) and Pei (2022) point out, the evaluation process itself can influence treatment choices. For example, if hormonal imbalances are identified, patients may be directed to medication regimens rather than immediate in vitro fertilization (IVF). In contrast, findings such as bilateral tubal occlusion or azoospermia frequently direct couples to artificial reproductive technology (ART) options such as IVF with intracytoplasmic sperm injection (ICSI) (Harrison, Gameiro, & Boivin, 2021) or surgical sperm retrieval techniques such as TESE or MESA (Fedder, 2021; Achermann, Pereira, & Esteves, 2021; Verza & Esteves, 2019).

Nevertheless, even when medical indications indicate a specific intervention, treatment adherence is not guaranteed. According to Schwartz (2016), a wide range of non-clinical factors influence decision-making. Financial concerns top the list: Wu et al. (2013) point out that out-of-pocket costs for ART are exorbitantly high per cycle in some countries, making it out of reach for many people who do not have insurance. Dunbar and Shultz (2021) emphasize that reproductive surgeries and specialized consultations frequently necessitate travel and time away from work, resulting in indirect burdens.

Cultural context is equally important. In societies where childbearing is central to

womanhood, such as parts of Nigeria, India, and China, infertility is highly stigmatized (Ramisetty-Mikler, 1993; Rowland, 2020; Ullah et al., 2021). Women, in particular, bear disproportionate blame, regardless of whether the fault lies with their partner (Dyer, 2007; Araoye 2003). This gendered burden influences treatment trajectories: some women may seek aggressive medical interventions not because they want to, but because they feel pressured to improve their social standing (Mumtaz et al., 2013).

Spiritual and traditional beliefs further diversify treatment options. Many people worldwide turn to faith healers, prayer, or herbal remedies before seeking medical care (Bouhours et al., 2019; Ishaka, 2021). Traditional medicine is still deeply embedded in reproductive health practices in Sub-Saharan Africa and South Asia, occasionally coexisting with modern medicine in what scholars refer to as "therapeutic pluralism" (Kupfer & McLeod, 2025). While some consider these alternatives to be complementary, others see them as substitutes, particularly when there is distrust of Western medicine due to historical exploitation or poor provider-patient communication.

Thus, fertility treatment options cannot be reduced to a simple algorithm based on test results. They represent a compromise between what is medically possible, financially feasible, socially acceptable, and consistent with personal values. According to Bunting et al. (2013), truly informed decision-making necessitates transparency about success rates, risks, emotional toll, and long-term consequences; however, many patients report feeling rushed or inadequately counselled.

Furthermore, the concept of "choice" must be critically examined. For marginalized groups,

such as LGBTQ+ people, single people, and low-income families, reproductive choices are frequently structurally limited rather than freely available (Shapiro, 2009). Access to donor gametes, surrogacy, or even basic diagnostics may be legally or economically prohibitive, making the concept of "informed choice" aspirational rather than real (Serour & Serour, 2017; Savulescu et al., 2020).

To summarize, fertility care choices are best understood as dynamic processes shaped by intersecting forces, rather than as isolated events. Recognizing this complexity is essential for developing equitable, empathetic, and effective reproductive services.

### ***Medical Definition and its Psychosocial Effects on Couples***

In medical practice as well as in observational and sociological studies, various definitions of infertility are used (Larsen, 2005). Marchbanks et al. (1989) observed diverse infertility descriptions throughout the academic study and medical practice in a report published in *Am J Epidemiol* (1989). The researchers stated in their published article, "Research on Infertility: Definition Makes a Difference," that the absence of uniform criteria for infertility has restricted research on this problem. Infertility is a reproductive system disorder that may be a contributor to various diseases later in life in addition to being a problem with life quality (Greil et al., 2010). The researchers looked at how differing definitions of infertility affected the overall frequency of infertility across socioeconomic groups (Marchbanks et al., 1989). After more than 40 years, different definitions of infertility continue to be employed.

The inability to define infertility makes it difficult to obtain a comprehensive picture of the problem. Infertility is referred to interchangeably in the literature with sterility, infecundity, childlessness, and subfertility. It is typical for these phrases to be used inconsistently and interchangeably, even though each portion of the term has a specific meaning (Gnoth, 2005). Gurunath et al. emphasized this lack of consensus in criteria in their comprehensive review of the literature on prevalence studies assessing infertility. Age group, type of treatment, length of exposure, and the result are the four components of the infertile definition that were examined in detail for conflicting definitions and inadequate verification. And concluded that a uniform, widely understood, and precise definition of infertility is necessary for understanding any work on infertility (Mascarenhas et al., 2012).

According to the WHO and the International Committee for Monitoring Assisted Reproductive Technology (ICMART), infertility is "a disease of the reproductive system defined by the inability to achieve a clinical pregnancy after 12 or more months of regular, unprotected sexual activity" (Zegers-Hochschild, 2009; Zegers-Hochschild, 2017). Despite this general WHO definition, it appears that the meaning of infertility is not entirely established (Gnoth et al., 2005). According to Ghaffari & Arabipoo (2018), this criterion seems to exclude couples with infertility and no chance of natural conception, such as men with oligozoospermia, primary hypogonadism, bilateral fallopian tube ligation, early ovarian failure, and so on. He also said that the role of assisted reproductive technology (ART) is not yet part of the definition of infertility (Ghaffari & Arabipoo, 2018).

Jacobson et al. (2018) also evaluated several infertility definitions, focusing on the age of infertility, the total frequency of natural conception after infertility, and forecasts of lifelong infertility, both globally and within socio-economic and demographic categories. Although

their results for the majority of infertility categories matched those of Marchbanks et al., (1989) the prevalence rate differed by the demographic group due to variances in infertility classifications (Jacobson et al., 2018).

Regardless of the lack of agreed-upon criteria, which jeopardizes medical care and diminishes the significance of study results, infertility as it pertains to this research was defined as the inability of a couple to conceive after one year of unprotected sexual intercourse (Edmonds, 2008). This definition serves as a guide for the research process, including interviews and open-ended questionnaires.

According to Marchbanks et al. (1989), this definition resonates more with the demographic group of blacks, who were the study's target population. Couples, particularly women who were infertile after 12 months of unprotected intercourse, were more likely to be black, less educated, and infertile at younger or older ages than women who were infertile based on other categories (Polly et al., 1989). The expectation is that this definition of infertility will impact research on the age of infertility diagnosis, the probability of future pregnancies, and the criteria used to classify couples as infertile (Marchbanks et al., 1989).

This definition has far-reaching emotional and social consequences for those affected by it. Couples may find it difficult to accept the medical definition of infertility (Practice Committee of the American Society for Reproductive Medicine, 2020) because it implies that they are unable to have children traditionally. This can cause them to feel sad, frustrated, and even angry about their situation. Couples may also feel isolated from friends and family members who do not understand what they are going through or how to best support them during this difficult time.

Furthermore, infertility can place a financial strain on couples due to the high cost of treatments (Dunbar & Shultz, 2021; Clazien, 2008) such as IVF (in vitro fertilization). The cost of these treatments frequently puts couples in debt, adding stress to an already stressful situation. Furthermore, there is no guarantee that these treatments was successful (Penzias, 2012), which only adds to the emotional burden experienced by those dealing with infertility issues.

The medical definition of infertility influences decision-making when it comes to conceiving a child (Hiadzi & Woodward, 2019). For some couples, this means looking into alternative methods like adoption or surrogacy, while others may choose donor sperm/eggs if it is available in their area or if country laws allow it. These decisions present their own set of challenges, such as psychosocial (Kaur, 2019) as well as legal paperwork and potential ethical concerns (Horowitz et al., 2010; Pennings, 2008) based on each couple's individual beliefs and value system.

Therefore, understanding the medical definition of infertility allows couples to better appreciate the impact it has on individuals who face this reality. Recognizing the role that deeply rooted emotions such as grief, guilt, shame, fear, anxiety, and depression play in the response to fertility struggles allows clinicians to begin providing more effective support systems tailored specifically to helping people cope with this issue (Brigance et al., 2021). Furthermore, being aware of all available options allows patients to make informed decisions about their reproductive health without feeling pressured into taking any particular action.

Finally, understanding the medical definition of infertility provides insight into how profoundly it affects people who are dealing with this emotional and social reality. It is critical

to recognize these effects so that adequate resources can be provided when needed to help people navigate their journey toward parenthood regardless of their treatment choice. According to Davis & Khosla, (2020), this is a human rights issue to which all infertile couples are entitled. However, infertile couples cannot be identified or categorized until infertility is precisely defined and classified. Only then can patients within this well-defined range be questioned about their fertility treatment options, and research built on this basis can be critiqued and duplicated elsewhere.

### ***The Social Definition of Infertility***

Clinically, infertility is typically defined as the inability to conceive after one year of regular, unprotected sexual activity (Edmonds, 2008). Nonetheless, it is well-known that many couples conceive naturally after more than a year of not using fertility treatments. Therefore, sociologists define infertility as the inability of a sexually mature woman without contraception to bear a "live child" (Thoma et al., 2011). In medical practice, it is essential to begin treatment as soon as possible, whereas in scientific studies, it is essential to avoid misclassification as much as possible. Due to the difficulty of collecting accurate conception data in community research, sociologists have shifted their focus from conceptions to "live births".

This shift in focus from conception to live births is even more crucial in infertility population analyses that frequently rely on secondary data, but lack or provide insufficient data on induced and recurrent abortions, miscarriages, and stillbirths (Browne, 2022). Due to the difficulty in determining infertility experience from secondary data, statistical estimates of infertility are based on rather lengthy treatment periods.

Therefore, apart from a shift of definition to live births, the social definition of infertility also encompasses a variety of factors, such as cultural norms (Husain & Imran, 2021), religious beliefs (McQuillan, 2004), gender roles (Sen & Östlin, 2007; Gullo, et al., 2021), economic status (ESHRE Capri Workshop Group, October 2015), and more. In some cultures, having children is viewed as essential to fulfilling one's role in life, whereas in others, it may not be viewed as not important or may even be discouraged. Similarly, certain religions may view childlessness differently; some may view it as a sign of divine punishment (Susanta, 2021), whereas others may view it as part of God's plan for each individual (Kirk, 2019). In addition, gender roles play a significant role in how society views infertility; women are frequently expected to bear children, whereas men may not feel the same pressure from their peers or family members if they cannot conceive naturally. Lastly, economic status can also affect how people view those struggling with infertility; wealthier couples tend to have access to more effective treatments, which can make them appear less sympathetic toward those who cannot afford such options.

In African culture, a marriage can only be considered truly complete if the couple has children (Dyer, 2004). Africans regard their children as a source of strength and dignity, and children serve as retirement security for their families. A guarantee of family continuity is the most crucial part of having children. According to Tahiri & Gjata, (2012), a full understanding of infertility must encompass not just the medical aspects, but also its psychological reactions and social dimensions.

In an essay titled "The Social Meaning of Infertility in Southwest Nigeria," Okonufua et al. investigated how Feldman-Savelsberg (1994) uncovered that infertility, as it is socially viewed, can lead to the dissolution of marriage among Bangangte tribal members in

Cameroon. This has extremely significant social ramifications: not only do women lose access to their partner's possessions; but they are also deprived of favour from their spouse and neglected in old age.

As part of her research on the social significance of infertility, Inhorn (1994) uncovered a gruesome and degrading ritual that is still practised in Egypt: the kabsa process. During this practice, prying people are allowed to enter apartments belonging to infertile women to "bind" their reproductive organs, which can both endanger their fertility and compromise the ability of their husbands to have children – thus threatening the social reproduction of Egyptian civilization at large. In Egypt, women fear kabsa because it is seen as the primary cause of female infertility, a socially unpleasant condition that must be addressed (Inhorn, 1994). Ademola (1982) portrayed a terrifying societal construct of infertile couples by asserting that in Ekiti, southern Nigeria, infertile women are regarded as pariahs, and their bodies are interred with those of insane persons on the outskirts of the community.

In the United States, single people and LGBTQ (lesbian, gay, bisexual, transgender, queer, or questioning) couples who desire biological children are deemed "socially infertile" (Lo, 2018). This discrimination can make it difficult for individuals and couples to obtain fertility treatments and adoption services, compounding their shame and problems (Ethics Committee of the American Society for Reproductive Medicine, 2015). Additionally, the high cost of fertility treatments and adoption services can make it more difficult for single and LGBTQ couples to start a family (Wu et al., 2013), as they may lack the financial resources to pursue these alternatives. In addition, the absence of legal protections for LGBTQ parents can impede their ability to start a family, as they may face discrimination in custody disputes and when attempting to obtain legal recognition as parents.

This demonstrates the need for increased social and legal support for single individuals and LGBTQ couples who wish to have children. According to Bell, (2019), it also emphasizes the need for greater acceptance and assistance for all individuals who wish to become parents, regardless of their relationship status or sexual orientation. LGBT Nigerians confront legal and social obstacles that non-LGBT people do not experience, such as prison sentences (Okanlawon, 2018). However, for this project, these obstacles are not considered in the analysis of voluntary social infertility.

According to Khetarpal & Singh (2012), the concepts of social infertility can also be compared to reproductive and endocrine system disabilities such as impotence and sterility. This categorization is strengthened by the fact that infertility, like disability, hurts a person's ability to engage in numerous facets of life. However, because infertility is a serious life issue, the couple must adjust and incorporate infertility into their new reality, as they would with any other disability. Infertility, like any other sort of social disability, is still socially defined with a sting of stigma and associated with taboo in the majority of countries, based on the belief that couples cannot fulfil their biological or parental duties on a social level (Ergin et al., 2018).

According to Greil et al. (2010), "wellness" and "sickness" are socially authored classifications rather than actual states. As such, infertility is viewed as a health-related ailment as opposed to a private issue for couples in society. As a result, a thorough evaluation of infertility provides an ideal window into the subject's study, which includes features such as multi-cultural and cross-cultural gaps in healthcare, the connection between selfhood and health, sex roles, and social and ethnic variations in the medicalization of infertility (Greil et al., 2011). In the Middle East and Africa, and likely globally, infertility is socially structured

(Hasanpoor-Azghady et al., 2019). Many women in poor countries, as well as underprivileged women in some highly industrialized countries, have extremely restricted access to medical care (Jacobson, 2018). All of these social variables and public opinions have an impact on the process by which infertility is socially defined.

It is important to take into account the "social definition" of infertility when considering how society perceives and reacts to individuals with fertility issues. This perception can be understood by looking at social constructs that explain how society perceives people who are unable to reproduce, as well as the strategies they come up with to cope (Greil et al., 2011). Although infertility inherently has medical implications, its societal impact cannot be overlooked or underestimated. Understanding the social definition of infertility is crucial when attempting to confront this complex issue. By recognizing the various cultural norms at play as well as other contributing factors such as religion, gender roles, and economics, we can begin to create more inclusive environments where everyone feels accepted regardless of whether they choose (or do not choose) to become parents via natural means or assisted reproductive technologies such as IVF/ART.

In addition, infertile couples continue to face stigma around the world, especially in cultures where all women are expected to have children. (Ergin et al., 2018; Hobek & Kızılkaya, 2021). Policies encouraging people to reproduce often amplify this issue, while those which offer an optional child-free status create new social understandings of infertility. In many cases, women still experience infertility as a silent burden and may struggle to conceal it even further if their culture defines parenthood as normative for women.

In many parts of the world, particularly in developed countries, infertility is typically viewed within a disease model framework (Maung, 2019). However, this is not always the case: there are some regions, such as Africa, where traditional conceptions and medical definitions of infertility often intersect or overlap (Sundby et al., 1998). According to Polis & Zabin (2012), this variability in how infertility is seen can have serious implications for women, particularly when their understanding of what constitutes infertility differs from that of mainstream medicine. It could mean they miss out on crucial treatment and social support services. Therefore, it is essential to acknowledge and consider different cultural perspectives (Fido & Zahid, 2004) around fertility issues so that all females may obtain appropriate assistance. It is also crucial to adopt a culturally sensitive approach to infertility treatment that considers the unique beliefs and values of each community (Barnes & Fledderjohann, 2017). This approach aids in the reduction of stigma and the improvement of access to care for women in developing countries.

Furthermore, educating communities about the medical causes of infertility and the treatment choices available can help to reduce misconceptions and increase acceptance of infertility treatments (Grill, 2023). This is possible through community outreach programs and collaborations with local healthcare providers.

The use of several infertility definitions hinders comparative investigations of the condition. Marchbanks et al. (1989) investigated five definitions of infertility and discovered that infertility prevalence rates and sociodemographic characteristics of infertile women differ significantly by definition. These distinctions are supported by the WHO standards for describing infertility, which state that crucial information such as induced abortions,

miscarriages, and stillbirths must be considered for a complete and truly representative description of infertility (Panti & Sununu, 2014).

Bledsoe et al.'s study on birth intervals and timing of childbearing in The Gambia demonstrates that African women have an understanding of when they have had a stillbirth, or induced abortions (Bledsoe, 2010), although this crucial detail is not presently included in the WHO medical definition of infertility. For these reasons, it is necessary to re-examine the idea that accurate data about such matters cannot be obtained through community surveys as part of the social definition of infertility. Okonufua et al. (1997) went deeper in their research on the social idea of infertility by conducting direct interviews with a very broad group of participants, the majority of whom characterized infertility merely as the inability of a woman to conceive a child.

According to Okonufua and his team, the notions of primary and secondary infertility were acknowledged by the focus group participants. It was generally reported that the Yoruba word "agan" (Okonufua et al., 1997; Koster-Oyekan, 1999; Araoye, 2003) is a term used to describe someone who has been married for a while but has never given birth, which is referred to as primary infertility in the medical literature. In contrast, the term "idaduro"(Okonufua et al., 1997) refers to a person who has trouble conceiving again following the birth of one or more children, a condition known as secondary infertility "Agan" is normally considered to be of greater severity than "idaduro"(prolonged waiting without a child), although "idaduro" may be especially severe if none of the living children are boys.

Notwithstanding Okonufua's classification, in sociology, fertility is defined as the birth of children (real birth), not just the possibility or potential ability of having children

(fecundity). Sociologists focus on social and environmental factors that have potential population-level effects, that is, elements that could potentially explain changes in fertility over time or differences between populations. Sociologists also look into differences in fertility among individuals because fertility number and timing can influence people's lives and the families they form (Scratchfield, 2017). This social definition is congruent with the working definition of this project, as every infertile couple would rather give birth to a child than be informed of their potential to carry one.

### ***Psychological Description of Infertility***

Infertility is a major psycho-social disorder that can influence a couple's entire way of life (Hocaoglu, 2019; Watkins & Baldo, 2004). It could challenge individuals' beliefs about who they are and how they interact with their spouses, relatives, and acquaintances. Infertility can cause internal conflict by challenging a person's sense of themselves and their ego. As infertility persists, the more hopeless and wretched a person feels, the more probable it is that their unhappiness will intensify (Ungerleider et al., 2017).

The psychological elements of infertility are among the most intriguing, owing to their dual effects on fertility therapy. Infertility has a wide range of implications, including societal ramifications and personal pain. According to Kurhan & Copoglu (2021), the psychological problems of many women with infertility are hidden in their deep emotional trauma, which is usually associated with decreased sexual satisfaction, significantly reduced frequency of sexual activity, stress, loneliness, guilt, and lack of self-confidence.

Furthermore, Cousineau & Domar (2007) discovered in their study on the psychological impact of infertility that the inability to have children is perceived as a difficult

and often devastating circumstance with extreme suffering and emotional agony by individuals and couples. In addition, they concluded that infertility can have negative social and psychological effects on the individual, ranging from outright social exclusion or separation to more covert forms of social prejudice that result in isolation and emotional misery (Cousineau & Domar, 2007; Centers & Blumberg, 1954). This is due in part to the fact that, in certain societies, parenting is the only option for couples to advance in their community and family lives. Parenting is regarded as a source of pride (Lazard et al., 2019), a sign of physiological completeness (Goodnow, 1988), joy (Brothers & Maddux, 2003), a social honour (Isiugo-Abanihe, 1994), and proof of a perfect creation (Belladelli, Muncey, & Eisenberg, 2023). These are the most common psychological perspectives, and in the absence of family support and competent counselling, the desire to achieve the same reproductive status as other family members becomes an addiction that pushes treatment decisions toward any positive outcome. Without attaining this essential objective, an extended period of depression may ensue, particularly in women (Deka & Sarma, 2010).

The work of Mumtaz and her colleagues on "understanding the impact of gendered roles on the experiences of infertility amongst men and women in Punjab" revealed that psychological distress associated with infertility is not the same for each gender, even though both men and women experience it. Their research revealed that women frequently endure violence, marginalization, and stigma at home or out in public. Men tend to face minimal ridicule from acquaintances (Mumtaz et al., 2013). Notwithstanding psychological stress and the possibility of low self-esteem, humiliation, or despair, women repeatedly seek invasive and painful infertility procedures, according to Benyamini, Gozlan, & Kokia (2005). In addition, anxiety is a common response among female patients confronted with options and

procedures for reproductive treatment (Gdańska et al., 2017). However, no such concerns were recorded from males who believed there was nothing wrong with their ability to have children. It is obvious, according to a 2012 study in the Asian Journal of Andrology by Fisher and Hammarberg that the bulk of studies on the psychological aspects of infertility and infertility therapy prioritizes women rather than men. According to their research, sterile males of childbearing age seek fatherhood similarly to their female counterparts; additionally, diagnosis and commencement of treatment are related to higher stress, and failed intervention can result in a condition of enduring depression. Infertility, according to the authors, is extremely embarrassing and demoralizing for men, has a severe negative effect on gender roles, and is more stigmatizing for males than it is for females (Fisher & Hammarberg, 2012).

However, Ferraresi et al. (2013) viewed the heavy emotional burden suffered by infertile women from changes in hormone levels which they believe can magnify emotions, making it harder to overcome even minor obstacles and problems. In addition, Ferraresi et al. (2013) noted that men with male factor infertility may indeed view the diagnosis as a threat to their manhood or fear that they were unable to perpetuate the family bloodline, regardless of hormonal influence on emotions. Therefore, the definition of psychologically-related infertility is not consistent and may differ depending on sex and hormonal influence. Other, more vital aspects of family life may be impacted by psychologically related infertility, such as relationships that suffer if consensual sex is perceived as an obligation to be completed on a predetermined schedule rather than an act of affection. Stress and psychological causes of infertility can be exacerbated by economic strain, differing viewpoints about the extent of reproductive treatment, and disruptions in interpersonal relationships.

Conversely, a study by Schmidt et al., (2005) found that sharing anxiety and dealing with decision-making challenges led to a reduction in concerns about distress and the positive development of the couple's marriage relationship (Schmidt et al., 2005; Greil et al., (1988); Schmidt (1996) articulated a similar idea in which infertility can bring partners closer together and enrich the marriage. According to the research, for half or most of the couples engaged in these qualitative investigations, the infertility experience strengthened their marriage and improved the partners' mutual connection, resulting in what they define as "marital benefits." Marital satisfaction has been assessed in several infertility research studies (Newton et al., 1999). However, marital contentment and marital benefits are not interchangeable. While satisfaction is described as a subjective evaluation (Sitzia & Wood, 1997), the marital benefit is defined as the assessment's positive influence on the marriage. Examples of such positive effects include increased communication between couples (Pasch et al., 2002), open dialogue with people other than their spouses, including sharing both concrete information and 'feelings' related to infertility and treatment (Abbey, Andrews, & Halman, 1995), and increased positive reappraisal of the situation, focused coping directed at the main goal, religious views and beliefs, and making positive meaning of ordinary events.

A study by Yilmaz et al. (2020) on the factors related to infertility distress indicated that the infertility distress level of women admitted to an infertility clinic increased with the length of their marriage, previous treatment failures, quality of marital relationship, lack of social support, and the length of their infertility treatment. Therefore, any treatment that reduces psychological distress should have a positive effect on infertility. The question Cwikel and his colleagues set out to answer was why a psychological intervention on infertility stress would have a favourable impact on infertile women's conception rates. They

proposed that emotional strain affects biological processes including neuroendocrine pathways. They looked further into a randomized trial in which women who received five sessions of psychotherapy saw significant reductions in psychological distress and natural killer cell activity, but not in those who received conventional care (Cwikel et al., 2004).

However, with the introduction of artificial reproductive technology, healthcare experts are now viewing infertility as a biological disorder rather than emphasizing its psychosocial component (Cousineau & Domar, 2007). The introduction of new reproductive technologies provides a glimmer of hope to seemingly hopeless couples.

### ***Religious Perspective on Infertility***

Infertility is a complex and multifaceted issue, with religious and social constructs shaping definitions (Greil & McQuillan, 2011). As a result, a multidisciplinary care plan must consider not only a couple's medical, psychological, and social needs, but also their religious and spiritual beliefs (Ellison & Levin, 1998). In times of crisis, including infertility, couples frequently seek solace in spiritual practices, using religion to find meaning in their pain (Roudsari, 2007). While medical professionals frequently focus on physical diagnoses, religious perspectives prioritize mental and spiritual purification. Domar et al. (2005) discovered that infertile women with higher levels of religiosity and spirituality reported less emotional distress.

However, religious interpretations of infertility vary greatly. According to Cox (2013), attitudes towards infertility vary depending on the religion and its internal denominations. While many religious traditions encourage prayer and spiritual healing to achieve good health

thereby enhancing reproduction (Zimmer, et al., 2019; Romeiro et al., 2017), others oppose technological interventions. The Catholic Church, for example, opposes IVF because it separates conception from the conjugal act, commodifying life and denying the child's divine identity (Donum Vitae, 1987; Tentler, 2019). Although this doctrine limits the use of ART, it encourages faith in divine healing as a viable option.

Family building is central to many religious traditions. Religious affiliation has a strong influence on reproductive decisions, despite being underexplored in academic literature. Jennings (2010) discovered that women from traditional Christian backgrounds were frequently motivated by their religious heritage to become mothers. Similarly, Islam regards childbearing as a divine gift and an essential component of marital fulfilment. Many Islamic communities accept ARTs like IUI, ICSI, IVF, and GIFT (Gamete Intra-fallopian Tube Transfer) as long as the sperm and egg come from the married couple and there is no third-party donor involved (Sallam & Sallam, 2016). Sunni Islam forbids third-party donations, but some Shia groups are more accepting. Treatments that violate these principles are considered "haram" (forbidden), whereas those that fall within marital boundaries are "halal" (permissible).

Religion has historically influenced how societies view fertility and deal with infertility (Roudsari et al. 2007). In many cultures, procreation is considered a sacred duty. Childbearing is important not only for familial continuity but also for religious identity and ritual. Religious belief can provide a powerful psychological refuge, particularly for those facing reproductive issues (Nouman & Benyamini, 2019).

However, deeply religious individuals may face additional stigma and social expectations. According to Bouhours (2019), religious communities may put pressure on couples to reproduce, causing additional emotional strain. Cultural norms that associate fertility with divine favour can lead to infertile people feeling like they have failed themselves (Cui et al., 2021). According to Pyysiäinen (2021), social systems that integrate both religious tradition and scientific intervention can help to bridge the gap between the two.

Religious beliefs may encourage healthy fertility-related behaviours, such as discouraging substance abuse (Zimmer et al., 2019). However, the intersection of religion and science remains largely unexplored. Erduran et al. (2019) emphasize the need for additional research into how religious frameworks interact with scientific advances in reproductive health. Despite their differences, many couples find comfort in religious practices and communities that uphold their dignity and offer hope.

Faith often promotes resilience. According to Nomaguchi & Milkie (2020), religion provides a non-medical approach to coping with life's adversities, including infertility. Religious teachings can assist couples in grieving, forming support networks, and renewing hope. Hook et al. (2021) discovered that faith-based guidance can help couples make decisions about options such as adoption, especially when they face moral dilemmas.

Spiritual communities also support adoption, emphasizing the equality of adopted children and their right to family identity (Miller-McLemore, 2019). These networks can mediate complex ethical issues related to lineage, culture, and inheritance, particularly in societies where ART challenges traditional kinship models.

Although modern families frequently deviate from traditional norms, religion continues to provide meaning. Shattuck & Muehlenbein (2020) and Zimmer et al. (2019) both agree that spiritual belief aids emotional adjustment in infertile couples. Prayer, rituals, and divine petitions remain essential coping mechanisms (Jennings, 2010). However, unrealistic religious expectations, especially among older women, can be harmful if not managed properly.

Faith communities help to normalize infertility by offering acceptance and assisting individuals in relinquishing control, thereby promoting emotional healing (Ellison & Levin, 1998). Ceremonies, collective prayers, and supportive gatherings all promote spiritual and psychological well-being, even during times of crisis like pandemics (Koenig, 2020). According to Huda et al. (2019), religion's most significant contribution may be in strengthening self-worth, reinforcing moral frameworks, and providing a path to emotional restoration.

Religions around the world provide hope through their belief in miracles. Couples may conceive after years of infertility with no medical explanation, often attributing such events to divine intervention (Ellison & Levin, 1998; Zhu, et al., 2022). However, do miracles have a significant impact on the outcomes for infertile couples? Cardin (1999) notes that belief in miracles enhances optimism, which in turn improves psychological well-being. Henkel et al. (2022) found that hope improves coping mechanisms. Grinstein-Cohen, Katz, & Sarid, (2017) found that within a sample of 159 women receiving infertility treatment in Israel, higher levels of religiosity were associated with specific coping strategies, including a positive correlation

between problem-solving coping and religious observance and beliefs. This suggests that religious faith influences women's psychological coping strategies in relation to infertility.

Conversely, Pyysiäinen (2004) argues that religion, magic, and beliefs in miracles share common cognitive underpinnings, rooted in well-developed mental systems. It regards miracles not as supernatural occurrences, but as cognitive outcomes of ordinary mental processes. It was suggested that believing in miracles, including those related to healing or fertility, stems from hyperactive agency detection, the inclination to ascribe inexplicable occurrences to deliberate agents like deities or spirits. It underscores that religious conceptions, such as miracles, endure due to their consonance with intuitive anticipations regarding agency, purpose, and morality. Therefore, relying solely on spiritual interventions rather than medical treatment is less effective. Mahoney (2010) discovered that couples who used only faith-based interventions had lower conception rates than those who combined prayer and ART. While faith boosts morale, medical advice remains essential.

Recent research supports the use of religious interventions in fertility treatments (Oren-Magidor, 2015). Spiritual counselling and faith-based rituals promote emotional well-being and may improve outcomes (Ellison & Levin, 1998). Couples who include spiritual guidance in their treatment plans report greater hope and emotional bonding.

Christian denominations differ in their acceptance of ART. The Catholic Church restricts IVF due to ethical concerns (Mallia, 2010; Roberts, 2006), whereas others take a more flexible approach. Islamic teachings also influence infertility treatments. According to Khan & Konje (2019), while prayer and divine intervention are essential, ART is permissible under religious principles.

Hinduism, too, offers spiritual solutions to infertility, such as prayer and traditional healing methods (Dutney 2007). Regardless of tradition, shared prayer and belief systems can help strengthen marital bonds. Grinstein-Cohen et al. (2017) observe that faith-based narratives of miraculous conception provide hope, even in seemingly hopeless situations. Baesler (2008) emphasizes that spiritual strength is an important coping resource.

Faith-based counselling and community support, such as those offered by churches and mosques, boost resilience (Mahoney, 2010). Religious behaviour is frequently associated with improved emotional outcomes in fertility treatments (Ellison & Levin, 1998). Intercessory prayer during medical procedures is also regarded as a source of strength, though it does not replace clinical care (Baesler, 2008).

### **Traditional perspectives**

Modern medicine has conducted a comprehensive examination of infertility; however, traditional viewpoints on this condition differ dramatically among different cultures. Specifically, centuries of cultural beliefs and practices have shaped African perspectives on infertility (Dyer, 2007). In some African societies, infertility is interpreted as a punishment from God or the ancestors for breaking taboos or traditions. Sewpaul (1999) posited that an individual's engagement with religion, personal interpretation of God, and self-perception regarding God are significant elements affecting the influence of religion on the experience

of infertility. This belief frequently causes feelings of guilt and shame in those who are unable to conceive, leading many to seek spiritual remedies, such as prayers or rituals, rather than medical interventions (Covington, 2006).

Furthermore, infertility is sometimes blamed on curses or malevolent spiritual forces imposed by enemies or rivals (Ali et al., 2011). As a result, many people turn to witch doctors or traditional healers instead of seeking medical fertility treatment. Some pregnancy-related superstitions persist, such as the belief that a pregnant woman who looks at something "ugly" will give birth prematurely, walking at mid-day attracts evil spirits, not buying baby items before birth to avoid 'evil' eyes, ritual silence to avoid miscarriages, interpreting dreams as bad omens, or that eating certain foods can cause birth defects (Leahy, 2023).

These culturally embedded beliefs continue to influence how infertility is managed in many African settings. Dombo & Flood (2022) questioned the rationale behind the apparent lack of encouragement for fertility counsellors to address religious or spiritual beliefs with clients, thereby integrating the spiritual aspect of the individual into their care. Despite advances in reproductive medicine, spiritual and traditional practices persist. In some cases, these beliefs discourage people from seeking medical attention for fear of social judgment or stigma. While such traditional explanations may provide emotional comfort, they are not equivalent to evidence-based treatments, which typically produce better results (Hiadzi & Boafo, 2020). When helping infertile couples, healthcare providers must take a culturally sensitive approach that incorporates both scientific understanding and local customs.

Historically, a variety of traditional fertility treatments have been used, and many of them are still used today, particularly in Africa and Asia (Jensen, 2016; Jaradat & Zaid, 2019).

Herbal medicine, which has roots in ancient Egypt, uses plants like fenugreek, myrrh, and frankincense to promote fertility (Adu-Gyamfi, 2015; Aboelsoud, 2010). These remedies are frequently accompanied by spiritual rituals such as offerings and prayers.

Today, herbal supplements, including ginseng, maca root, red clover, and chaste berry, are frequently employed to promote reproductive health and regulate hormones (Jaradat & Zaid, 2019). Huang et al. (2011) have also acknowledged the efficacy of complementary practices, including acupuncture and dietary modifications, in promoting fertility. However, such remedies should be used with caution. According to Larsen et al. (2003), the potential health risks associated with inaccurate supplement labelling are a cause for concern. When combining herbal and medical therapies, individuals should consult with a qualified professional.

Traditional healers and herbalists use distinct methods. Herbalists typically study the pharmacological properties of plants (Meyer, 1960; Mashaah et al., 2024), whereas traditional healers incorporate herbs into larger spiritual and cultural frameworks. Their holistic approaches seek to restore balance between the physical and spiritual aspects of health.

Many traditional infertility treatments continue to incorporate spiritual rituals, such as divination, ancestor veneration, and dietary restrictions. Massage therapy, yoga, meditation, and tailored nutrition have all grown in popularity due to their ability to reduce stress and improve reproductive health (Vickers & Zollman, 1999; Veal, 1998; Hillier & Olander, 2017).

Nonetheless, traditional treatments have psychosocial consequences. In comparison to assisted reproductive technologies (ART), these methods are frequently stigmatized and perceived as antiquated, as noted by Hbek & Kızılkaya (2021). A consequence of this may

be social isolation or embarrassment. Partner conflicts may also develop when partners are faced with the decision of whether to pursue traditional or modern treatment paths, which could potentially strain their relationships (Abbey et al., 1992).

While traditional therapies are generally less expensive than ART, the costs can vary greatly depending on the practitioner and location (Jones, 2018). Couples must meticulously evaluate the financial implications, potential psychological effects, and effectiveness of the treatment before acting.

Finally, traditional infertility perspectives and treatments provide important cultural insights and alternative therapeutic options. However, to ensure safety and efficacy, they should be used under medical supervision. Comprehensive infertility care requires a balanced, informed approach that takes into account both personal beliefs and scientific guidance.

## **The Roots of Infertility – Historical Background**

### **Poor lifestyle choices**

Infertility, which is medically defined as a couple's inability to conceive after one year of unprotected sexual encounters (Fisher and Hammarberg, 2020; Edmonds, 2008; Alesi, 2005; Gnoth et al., 2005; Cates et al., 1985) is a growing problem in today's society, with many couples struggling to conceive. While there are numerous causes of infertility, the most common are poor lifestyle choices (Kawale et al., 2022; Hunter et al., 2021; Leisegang & Dutta, 2021; Stephenson et al., 2018; Chavarro et al., 2007), ageing (Pino et al., 2020; Bledsoe, 2010) and genetics (Blakemore et al., 2020; Zorrilla & Yatsenko, 2013; Glueck & Goldenberg, 2019). It is important to note that, even though the existing literature identifies a handful of variables that may influence a patient's or a couple's capacity to conceive, most of

these variables lack evidence from randomized clinical trials that would provide quantitative evaluation and, most definitely, causation for each variable. However, based on the known and current literature, this sub-theme explores each of these factors in more detail and discusses how they can contribute to infertility.

### **Weight**

Body mass index (BMI) is a simple formula that compares a person's height and weight to ascertain their overall health (Misra & Dhurandhar, 2019). It classifies individuals as underweight, normal weight, overweight, or obese based on scientific literature. However, some argue that BMI does not account for muscle mass, which can result in inaccurate assessments of an individual's actual health status. This sub-theme offers an in-depth examination of the metrics used in calculating body mass index (BMI), highlighting its strengths and weaknesses that can help patients make more informed decisions about their health strategy. According to Misra & Dhurandhar (2019), the calculation is as follows:  $\text{kg/m}^2 = \text{kilograms divided by the square of the person's height}$ . Health practitioners use BMI to estimate a person's risk for diseases related to being overweight or obese (Bellver, 2022; Ma et al., 2019; Eisenberg et al., 2014).

However, the BMI is not a perfect assessment because it does not account for characteristics such as the distribution of body fat (Orsso et al., 2020). BMI can be beneficial for identifying potential health problems linked with weight (Bellver, 2022), but it should be used in conjunction with other factors such as nutrition and amount of physical activity.

Additionally, individuals should visit a healthcare practitioner to evaluate their specific health risks and establish a personalized plan for maintaining a healthy weight. BMI

is a measure that applies to all ethnic groups, genders, and age groups equally (Dougherty, 2020; Deurenberg, 1998). The World Health Organization (WHO) and the National Institutes of Health (NIH) consider an individual as underweight if their BMI is 18.5 or less, healthy if it falls between 18.6-24.9, and overweight when over 25 up to 29.9. According to Weir and Jan 2019, while there are varying opinions regarding different cut-off points for various ethnicities, this remains the universal standard across demographics today.

In recent years, weight has been increasingly connected to fertility as it impacts hormone levels and ovulation cycles. Women who are overweight or obese may have higher estrogen levels, which can interfere with the process of conception (Pasquali et al., 2007). Additionally, obesity is linked to a rise in the risk of polycystic ovarian syndrome (PCOS), another factor that contributes to infertility (Bond et al., 2020; Zehravi et al., 2021). Understanding how one's body weight correlates to their ability to conceive is essential for reproductive health.

Obesity has also been associated with lower sperm count and quality, as well as erectile dysfunction in men (Salas-Huetos et al., 2021). Puri et al. (2020) highlighted the association between BMI and semen parameters. All of these factors can make it harder to conceive naturally. Furthermore, studies indicate that even minor levels of excess body fat may impair male fertility due to changes in testosterone production (Ma et al., 2019). In contrast, Wise et al. (2010) found that male obesity was not linked to infertility in a prospective cohort study.

However, Bellver et al. (2006) discovered that obese women had poorer chances for implantation, conception, and live birth; furthermore, the likelihood of pregnancy and giving

birth decreased as body mass index increased, regardless of embryo quality, suggesting an alteration in endometrial milieu likely contributed significantly to those individuals' outcomes (Bellver, 2022).

Fortunately, there are steps people can take regardless of their present weight status to boost their chances of conception. Losing just 5–10% of body weight through food and exercise could help regulate hormones and increase fertility rates in women who are overweight or obese (Hunter et al., 2021). Similarly, for men who are overweight, reducing body fat through healthy eating habits combined with regular physical activity may lead to an increase in sperm count and quality over time (Bond et al., 2020).

To take the appropriate precautions before attempting to conceive, both individuals who wish to conceive must be aware of how weight affects fertility. Being overweight or obese can disrupt hormone levels and cause irregular periods, making pregnancy more difficult for women (Hunter et al., 2021). Extra weight in men can reduce sperm production and quality, limiting the likelihood of fertilization (Calderón, 2015). Some couples may benefit from taking proactive measures before attempting to conceive, such as changing their eating habits and boosting their level of physical activity (Hillier, 2017; O'Keeffe et al., 2016). Both couples must prioritize their health before attempting to conceive to increase the likelihood of a healthy pregnancy (Hunter et al., 2021). According to Stephenson et al. (2018), small lifestyle changes, like eating a balanced diet and exercising regularly, can have a big impact on fertility. A similar opinion is held by O'Keeffe et al. (2016). Although some authors, such as Amjad et al. (2019), have proposed a link between male obesity and infertility, and this claim has been corroborated by Bond et al. (2020), the data are mixed. No randomized

controlled trials have been conducted to support this claim, nor is there any conclusive research to support this putative association (Puri et al., 2020).

There is mounting evidence that effectively treating overweight or obese women may improve their fertility (Gautam et al., 2023). Glueck and Goldenberg (2019) found that non-surgical therapy for obese people with polycystic ovarian syndrome (PCOS) enhanced conception in patients who lost at least 5-10% of their body weight. Novais et al. (2022) revealed that surgical therapy may not be advantageous, even though the bulk of existing data seems to indicate an increase in fertility status associated with surgical weight loss. However, a meta-analysis by O'Brien et al. (2019) showed that surgical weight loss boosts fertility in both men and women. More research is needed, however, to substantiate the correlation between male obesity and infertility. Meanwhile, treating overweight or obese women may be an excellent place to start when it comes to enhancing their chances of becoming pregnant.

### **Age**

Infertility becomes more common as people get older (Brandt, Cruz Ithier, Rosen, & Ashkinadze, 2019). After the age of 35, there is scientific proof that the age of the male spouse may also influence infertility. Therefore, age is an important factor in infertility in both men and women. According to Moridi et al. (2019), significantly fewer women and men can conceive naturally as they grow older. This is because ageing affects the quality and quantity of eggs and sperm, leading to a decline in fertility. Additionally, the risk of complications during pregnancy and childbirth also increases with age.

According to a prospective study conducted by Dunson et al. (2004), it was reported that 8% of women aged 19-26 were infertile, 13-14 % from ages 27-34, and 18% from 35-

39. For couples struggling to start or expand their family, this can be an incredibly distressing reality. To better understand how age affects fertility and recognize the needs of those enduring infertility due to their age group, this sub-theme discusses further details.

Fertility declines in women beginning in their late 20s and continues until menopause, which typically occurs between the ages of 50 and 51. During this period, egg quality and quantity gradually declined, which made conception more challenging. du Fossé et al. (2020) asserted that women over the age of 35 have a higher chance of miscarriage than younger women because their eggs are more likely to have chromosomal abnormalities

For couples experiencing infertility owing to age, there are medical solutions that can help, but how old is too old? (Reynolds, 2010). These options include fertility treatments such as in vitro fertilization (IVF), which involves fertilizing eggs with sperm outside the body before transferring them to the uterus (Montag & Morbeck, 2017). However, it is important to make an informed decision and weigh the potential risks and benefits of these treatments as well. Some women may also opt for alternative approaches such as acupuncture, herbal remedies, or changes in lifestyle and diet (Clark et al., 2013; Lin et al., 2022; Akbaribazm, Goodarzi, & Rahimi, 2021).

Furthermore, hormonal changes during perimenopause might produce irregular menstrual periods, lowering the chances of a successful pregnancy even further (Direkvand-Moghadam & Mozafari, 2015). Men's fertility drops with age, though not as dramatically as women's (Schwartz, et al., 1983; Wagner, Huinink, & Liefbroer, 2019). According to studies, sperm count and motility begin to decline beyond the age of 40, while DNA fragmentation increases (Gonzalez et al., 2022; Pino et al., 2020). These alterations make it more difficult

for sperm cells to effectively fertilize an egg, resulting in reduced pregnancy rates among older men (Fainberg & Kashanian, 2019). For partners experiencing infertility or subfertility owing to age, there are still options available, such as IVF (Crawford & Ledger, 2019; Amjad & Rehman, 2021), donated eggs (Thaldar, 2020), or sperm donation (Mignini Renzini et al., 2021). Both spouses must seek medical consultation from a doctor before making any treatment decisions so that they are aware of any hazards involved with these treatments (Kopp et al., 2023). Furthermore, lifestyle changes such as eating good meals and exercising regularly may improve general health, raising the chances of naturally conceiving even at advanced maternal or paternal age.

In general, couples who are attempting to conceive later in life should understand how ageing impacts fertility so they know what steps to take if spontaneous pregnancy is not possible straight away. Despite being labelled "older parents," many couples can realize their desire to establish or grow a family with the help of medical advice and lifestyle modifications (Pillai & McEleny, 2021; Alibeigi, et al., 2020). In addition, couples need to discuss their emotional readiness for parenthood and the potential challenges of raising a child at an older age. By preparing for these challenges and seeking support, older parents can still have a fulfilling experience and create a strong bond with their children. Ultimately, the decision of whether to pursue fertility treatments or natural conception should be made based on each couple's unique circumstances, age, and desires.

According to Ubaldi et al. (2019), the effectiveness of Artificial Reproductive Technology is hampered by ageing. In a retrospective analysis of 1313 embryo transfers, the clinical pregnancy rate was 35.1% in the less than 35-year age group and 26.9% in the more than 35-year age group (Cetin et al., 2010). This is supported by Awadalla, Bendikson, Ho,

McGinnis, & Ahmady (2021), who developed a predictive algorithm for the number of embryos to transfer using age as one of the factors, presuming that older adults have a poor viability rate. According to Seli et al. (2011), the viability score, whether considered independently or in conjunction with morphological grading, has the potential to serve as a more effective classifier for pregnancy outcomes than morphology alone. Additionally, in 2007, 46.1% of fresh embryo transfers from patients under 35 years old resulted in live births in the United States. This number gradually decreased to 16.4 among patients in their 41st and 42nd years.

To optimize their chances of success, it is also recommended that couples approach fertility treatment with realistic expectations and understand that there may be multiple attempts or alternative options necessary. With proper preparation and guidance, however, many couples can overcome age-related obstacles and achieve their dream of parenthood regardless of their chronological age (Somigliana et al., 2016). In addition to medical consultation, couples need to have an honest conversation about their hopes, fears, and expectations of starting a family at an older age. It can help them make an informed choice about fertility treatments or adoption, as well as provide the needed psychological support throughout the process.

### **Alcohol**

The impact of alcohol on fertility is uncertain (Burgo, 2015). Finelli et al. (2021) and Nyandra et al. (2022) examined the effects of alcohol on reproductive potential. The findings revealed that persistent alcohol intake hurt both male and female reproductive functions of humans and animals. This was supported by a study by Fan et al. (2017), who discovered a relationship between alcohol intake and decreased reproductive status. Chavarro et al. (2007)

discovered a strong link between heavy alcohol usage (more than two drinks per day) and decreased fertility. Low-to-moderate alcohol consumption (less than five drinks per week) had no statistically significant influence on fecundity after correcting for confounding variables including smoking and BMI. In a similar study, Parazzini et al. (1999) conducted a case-control study involving over 1,000 women, revealing that heavy alcohol consumption (more than 2 drinks or 30 g per day) was significantly associated with an increased risk of unexplained infertility, particularly primary infertility, whereas light-to-moderate intake did not demonstrate this association. Borges et al. (2015) did a systematic review and meta-analysis, and found no general link between alcohol consumption and infertility. However, they discovered a consistent dose-dependent trend: heavy drinking (usually up to three drinks per day) was related with decreased fecundity and increased infertility risk, whereas low consumption (less than one drink per day) had no negative consequences. Both studies suggest that excessive alcohol use may harm female fertility, although moderate or light drinking does not appear to have a significant effect.

Klonoff-Cohen et al. (2003) conducted a meta-analysis of female and male alcohol usage on ART. The results of the study indicated that female alcohol consumption was associated with inferior ART outcomes, while male alcohol consumption was influenced solely by the quantity consumed. It is crucial to emphasize, however, that this is just one study among many, and more research is needed to completely understand the influence of alcohol usage on ART outcomes.

According to a study by Hornstein, (2016), female alcohol intake was connected to a decrease in the number of oocytes recovered, a fall in pregnancy rates, and an increase in spontaneous abortions in the study. The study emphasizes the possible negative influence of

female alcohol use on ART outcomes when compared to male alcohol use, which is dependent on consumption level. The results of the study indicate that additional research is necessary to properly comprehend the complex interaction between alcohol use and ART. Furthermore, Van Heertum & Rossi (2017) opined that male alcohol consumption of one drink during the IVF procedure was associated with a higher risk of spontaneous abortion as compared to males who had not drink alcohol for at least one month or one week before sperm collection for IVF

A similar research by Mínguez-Alarcón et al. (2018) showed that female alcohol consumption negatively affects ART outcomes much more than male alcohol consumption does. Nonetheless, they argued that the level of consumption remains important to their findings, and further research is needed to fully grasp the relationship between alcohol usage and ART. Another study by Henriksen et al. (2004) discovered that male alcohol use during IVF can raise the probability of spontaneous abortion.

Additionally, many health issues, including infertility, have been linked to alcohol consumption. While moderate alcohol intake is usually considered to be healthy for most adults, excessive alcohol consumption might negatively impact fertility and reproductive health.

According to studies, even moderate alcohol consumption might affect fertility in both men and women (Van Heertum & Rossi, 2017). Excessive drinking can result in irregular menstrual periods and ovulation problems, making it harder for women to conceive naturally (Mikkelsen et al., 2016; Bae et al. 2018; Harris et al., 2023). Due to its negative impact on the developing foetus, alcohol increases the risk of miscarriage. In men, excessive alcohol

consumption is associated with lower sperm count and motility (Liu, 2023), as well as an increased risk of erectile dysfunction, which may hinder successful conception.

In addition to affecting fertility directly, alcohol intake can indirectly affect fertility by increasing stress levels (Pohorecky, 1991) or leading to unhealthy lifestyle choices such as smoking or poor diet, which further reduce a couple's chances of becoming pregnant. In addition, long-term heavy drinkers are more likely than non-drinkers to suffer from chronic diseases such as liver cirrhosis or cancer (Ganne-Carrié & Nahon, 2019), which may cause irreversible damage that inhibits their ability to reproduce frequently later in life.

Various methods can be taken to limit the risk of infertility caused by alcohol intake while keeping in mind the findings of Nassan et al. (2021), who discovered that while alcohol can cause reproductive difficulties, men who prefer soft drinks to alcohol also have trouble conceiving.

According to Liu, (2023), the following are suggestions for increasing fertility: First, limit alcohol intake. Men are advised to consume no more than two drinks per day, while women should consume no more than one drink per day. Exceeding these levels could substantially increase the risk, so avoid exceeding them whenever possible. Second, avoid excessive drinking. Consuming four or more alcoholic beverages within a brief time frame should be avoided at all costs due to the strain it places on the body's organs, especially the reproductive organs. Third, stop smoking. Therefore, it is preferable to cease both at once. Consume nutritious foods. Eating nutrient-dense foods keeps the body functioning optimally and reduces stress, thereby improving reproductive health. Lastly, engage in regular exercise - Regular exercise helps maintain a healthy weight and improves circulation throughout the

body, which makes it easier for hormones involved in reproduction processes such as ovulation and sperm production to function properly.

By sticking to these recommendations, the chance of developing reproductive issues due to excessive alcohol intake can be reduced. However, because every case is different, patients should always see a physician before making any lifestyle changes.

### **Smoking**

Tobacco use is a significant threat to public health (Siddiqi et al., 2020), and its effects on fertility are well documented. According to Mínguez-Alarcón, (2018), both men and women who smoke have significantly reduced reproductive chances. This theme examines the literature on the various ways that smoking affects fertility, as well as potential treatments for those who wish to conceive despite their smoking habit.

The use of tobacco remains one of the leading causes of needless deaths, killing millions of people annually (World Health Organization [WHO], 2021; St Claire et al., 2020). Immurana et al. (2021) claim that despite taxes and price increases, two of the primary strategies advocated to reduce the demand for tobacco products, there has only been a very slight decline in tobacco smoking prevalence throughout Africa.

In the United States, 35% of men and 30% of women who are fertile smoke, and cigarette smoking may be a factor in up to 13% of incidences of infertility (Practice Committee of the American Society for Reproductive Medicine, 2012). Most studies done thus far have focused on examining the effect of cigarette smokers' female partners on fertility and have reported an overall reduction in fertility.

According to a meta-analysis by Pineles et al. (2014) and a study by Farioli et al. (2010), the most prominent effect of smoking on fertility is an increased risk of miscarriage or stillbirth in pregnant smokers. Women who smoke during pregnancy are more likely to experience complications such as preterm labour (Günther, 2021), low birth weight (KC, Basel, & Singh, 2020), and placental abruption (Odendaal, 2020) than women who do not smoke. Moreover, smoking can damage a woman's eggs and hasten menopause (McKinlay, 1985), while in men it can reduce sperm count and motility (Parameswari & Sridharan, 2021). According to a study conducted by Hull, North, Taylor, Farrow, & Ford (2000), there is an association between the time required to conceive and the number of cigarettes smoked daily. In a meta-analysis of 22 studies, Waylen et al. (2009) found that smokers had significantly lower pregnancy rates, fewer live births, and higher rates of spontaneous miscarriage and ectopic gestation.

Furthermore, Bressler, et al. (2016) reported that exposure to second-hand smoke has been linked to a decrease in ovarian reserve in women, meaning that they produce fewer eggs each month, making it difficult for them to conceive naturally or through assisted reproductive technologies such as IVF. Therefore, it is essential for couples trying to conceive to quit smoking. Not only does it improve overall health, but it also increases the likelihood of a healthy conception and pregnancy. According to the Practice Committee of the American Society for Reproductive Medicine, (2020); smoking accelerates the decrease of reproductive capacity, may hasten the onset of menopause by one to four years, and is associated with an increased risk of ectopic pregnancy, spontaneous abortion, and gamete gene mutation. In addition, smokers experience twice as many assisted reproductive failures as non-smokers.

In addition, Holzki et al. (1991) found that male smokers may be less fertile than non-smokers due to a reduced sperm count and motility. Besides these direct effects on reproductive health, Jandíková et al. (2017) discovered that smoking also has indirect effects on fertility. Nicotine, for instance, has been associated with hormonal imbalances (Chhabra et al., 2021) in both men and women, which can lead to infertility issues such as polycystic ovary syndrome (PCOS) or erectile dysfunction (ED).

Those who wish to conceive despite their habit may benefit from treatments that increase their chances of success. It is essential to consult with a healthcare provider to discuss these options and develop an individualized treatment plan. Medical professionals recommend quitting smoking before attempting to conceive (Martin et al., 2008); however, this is not always possible, so other options should be considered. Among these are consuming a balanced diet rich in antioxidants and engaging in regular exercise, taking supplements such as folic acid, utilizing alternative therapies such as acupuncture, and, depending on the individual situation, seeking medical interventions from specialists. According to Crawford et al. (2008), not only does quit smoking improve fertility, but it also reduces the risk of complications during pregnancy and delivery. In addition, seeking support from friends, family, or a support group can be advantageous for maintaining a smoke-free lifestyle. It is essential to have a strong support system in place to assist with the management of potential withdrawal symptoms and to provide encouragement throughout the process. Every step towards a smoke-free lifestyle is a step towards improving overall health and increasing the chances of conception.

## Caffeine

Infertility is a growing concern for many couples, and its causes can be intricate. Caffeine consumption is a factor that has been studied in infertility (Mínguez-Alarcón, 2018). Caffeine is found in coffee, tea, energy drinks, chocolate, and other foods and beverages, according to Kudema et al. (2023). While moderate caffeine consumption may not affect fertility, excessive consumption may lead to infertility problems

Caffeine stimulates the central nervous system and raises the heart rate and blood pressure (Myers, 1988; De Giuseppe et al., 2019). It also increases cortisol levels (Mohammed et al., 2022) in the body, which can interfere with reproductive hormones such as estrogen and progesterone, which are required for conception. In addition, high levels of caffeine can cause dehydration, which can affect sperm production in men and egg quality in women, resulting in natural infertility

Consuming more than 500 milligrams (mg) of caffeine per day may reduce a woman's chances of becoming pregnant, according to Qian, Chen, Ward, Duan, & Zhang (2020). There was an increased risk of abnormal sperm morphology for men who consumed more than 100 - 200 mg per day (Anderson, Nisenblat, & Norman, 2010). Furthermore, research suggests that even small amounts of caffeine consumed daily over time may hurt fertility due to the body's hormonal balance (Cano-Marquina et al., 2013; Harpaz et al., 2017); however, Leviton & Cowan (2002) assessed the relationship between caffeine and female infertility, concluding that it remains unproven and likely exaggerated in previous studies. No strong evidence was found to support the claim that moderate caffeine consumption reduces fertility; however, uncertainty remains regarding very high intake levels. It should be noted, however, that while

some studies suggest a link between high caffeine consumption and decreased fertility rates, this does not necessarily mean that reducing caffeine intake increases the chances of conceiving; this depends on individual factors such as age or underlying health conditions related to infertility issues, such as endometriosis or polycystic ovary syndrome (PCOS). In addition, lifestyle changes such as quitting smoking (Jha, 2020) and maintaining a healthy weight (Hunter et al., 2021) are crucial for improving overall reproductive health, regardless of how frequently you consume caffeinated beverages.

Even though current research suggests that excessive consumption of caffeinated beverages may contribute to lower fertility rates, more research is necessary before definitive conclusions can be drawn about its effects on reproduction, especially when other lifestyle factors known to influence fertility outcomes positively or negatively are considered. To avoid inadvertently putting themselves at risk for potential complications in the future that may be directly or indirectly related to their current diet preferences, those attempting to conceive naturally should limit their daily intake to less than 500 mg until more information becomes available on this topic.

### **Nutritional**

Many couples are concerned about infertility, and the causes of infertility can be complicated. Even though fertility issues frequently necessitate medical treatment, affirmed the important role of nutrition in reproductive health (Aoun, El Khoury, & Malakieh, 2021; Arab et al, 2019; Skoracka, Eder, Łykowska-Szuber et al, 2020).

According to Ma et al., (2022), Łakoma et al., (2023), and Bala et al., (2021), several aspects of reproductive health, including ovulation, sperm production and quality, hormone

balance, and embryo implantation, have been linked to nutrition. In obese males, androgens can be aromatised to oestrone in the fatty tissue and subsequently converted to oestrogen, resulting in gynaecomastia and diminished sperm quality. Moreover, significant undernutrition in females, exemplified by anorexia nervosa, can result in hypogonadotropic hypogonadism, which may lead to amenorrhoea and infertility.

Inadequate intake of essential nutrients such as vitamins A and E (Jones et al. 1949; Chen, et al., 2020), zinc (Harchegani et al., 2018), {omega-3 fatty acids, magnesium, selenium, iodine} - (Peres et al., 2017), antioxidants, folate, iron, calcium, vitamin D3 (Berry, Seidler, & Neil, 2022), and B vitamins (Bennett, 2001) has been associated with an increased risk of infertility. Insufficiencies in these nutrients can result in hormonal imbalances that interfere with normal ovulation or affect sperm production or quality. Inadequate nutrition has also been linked to oxidative stress (Morin et al., 2019), which can damage reproduction-related cells, resulting in lower fertility rates (Silvestris, Lovero, & Palmirotta, 2019).

Couples attempting to conceive naturally or through ART procedures such as IVF/ICSI/IUI must maintain a healthy diet rich in the essential micronutrients required for optimal reproductive health (Budani & Tiboni, 2023). Eating a balanced diet rich in fresh fruits and vegetables provides essential vitamins and minerals for conception, while avoiding processed foods high in sugar reduces inflammation throughout the body, which could otherwise hinder fertility efforts. Under a doctor's supervision, it may be beneficial to supplement with specific micronutrients (Dimitriadis et al., 2021) known to promote fertility, such as CoQ10, L-arginine, Vitamin C, Vitamin D3, and Omega-3s (Arab et al., 2019). Couples should prioritize eating whole, nutrient-dense foods and avoid processed, high-sugar

foods whenever possible. By adhering to these guidelines, couples considering procreation will increase their chances of having a successful pregnancy.

### **Genetics**

Infertility is a growing problem in modern society, and the role of genetics in infertility, according to Cariati, D'Argenio, & Tomaiuolo (2019), has become an increasingly important topic (see figure 4). Although lifestyle choices and environmental factors can contribute to infertility (Bala et al., 2021), genetic factors play a significant role in determining whether or not an individual can conceive (Yatsenko et al., 2019). This sub-theme examines the effect of genetic abnormalities on fertility choices, as well as how genetic sexual problems and abnormalities can affect one's ability to reproduce.

Typically, genetic sexual issues can result in infertility (Short et al., 2013). For instance, chromosomal abnormalities such as Klinefelter Syndrome (XXY) or Turner Syndrome (XO) can result in hormonal imbalances that make it difficult for people with the condition to produce viable sperm (Bearely & Oates, 2019) or eggs (QAZIZADA, 2019). Furthermore, certain inherited diseases, such as cystic fibrosis (AlMaghamisi et al., 2020), can disrupt fertility by causing blockages within the reproductive tract, preventing sperm from reaching its destination during intercourse.

There are numerous types of gene mutations (Wang et al., 2021; Liu et al., 2021) that have the potential to cause infertility, including single-gene defects like Fragile X syndrome and polygenic disorders like Huntington's disease, which involve the simultaneous mutation of multiple genes.

Hermaphroditism is a genetic condition in which a person has both male and female reproductive organs. Hermaphroditism is estimated to occur in 1 out of every 5,000 births (Davies, 2019); however, this number may be higher due to underreporting or misdiagnosis. Hermaphrodites face unique fertility challenges because they frequently lack the hormones required for gender-specific reproductive function (i.e., ovulation for females). Consequently, it can be challenging for them to find partners who are willing to accept their situation and provide them with the opportunity to conceive. Those affected by a genetic disorder affecting reproduction must seek medical attention and be aware of their options when attempting to conceive naturally or through assisted methods such as IVF/ICSI treatments, among others.

Overall, genetics plays a significant role in determining the reasons for a couple's inability to conceive naturally, especially if they have any kind of abnormality associated with their sex chromosomes/organs, etc. Therefore, it is essential for anyone experiencing difficulties to consult with their doctor to determine precisely what steps must be taken to ensure future pregnancy success.

### ***Physiological Diseases Associated with Infertility***

Numerous disorders and conditions result in infertility. In this review, infertility is defined as a couple's inability to conceive after 12 months of unprotected sexual activity, regardless of the underlying cause (Ghaffari & Arabipoo, 2018). It is believed that 10-15% of couples worldwide are affected, with male factors accounting for 40–50% of instances and female factors for 40% (Edmonds, 2008). This sub-theme examines various physiological causes or circumstances likely to result in male and female infertility.

### *Female Aspects*

In women, endocrine abnormalities account for 20% of cases of infertility caused by ***hormonal imbalance*** (Khmil, 2020) and ***irregular ovulation***. Hormonal imbalances occur when there is an excess or deficiency of hormones in the body, leading to irregular ovulation (Bhadra, 2020) and menstrual cycles (Joshi et al., 1993). This can have serious fertility consequences because it prevents eggs from being released regularly, making conception difficult or impossible. Hormones play an important role in regulating reproductive health, and any disruption in their balance can result in infertility (McLachlan, 2006). When hormone levels become imbalanced due to stress, poor diet, environmental toxins, or other factors, the normal functioning of the reproductive system is disrupted and it becomes more difficult for women to conceive naturally (See figure 4). Irregular periods are another sign of hormonal imbalance that can have an impact on fertility. Irregular periods (PAGE, 2022) indicate that ovulation does not occur at regular intervals throughout the month; instead, it may occur early or late each month, or it may skip months entirely. This makes natural conception challenging because eggs cannot be released on time and ovulation cannot be maximized for sperm cell fertilization (Paola, 2022).

25-30% of infertile women have been found to have ***Polycystic Ovary Syndrome*** (PCOS) (Zehravi et al., 2022), which changes hormone levels, disrupts the menstrual cycle, and can lead to the development of low-quality eggs that inhibit fertilization (Barber & Franks, 2010; Goodarzi, 2011). Polycystic Ovary Syndrome is a common endocrine disorder that primarily affects women of reproductive age. It is distinguished by the presence of multiple cysts on the ovaries, as well as hormonal and metabolic imbalances. Polycystic Ovary Syndrome can interfere with fertility, making it difficult for affected women to

conceive naturally. According to Dapas & Dunaif, (2022), the exact cause of PCOS is unknown, but it appears to be linked to a hormonal imbalance involving testosterone and insulin. Women with PCOS frequently produce more male hormones than normal (Lerchbaum et al., 2014), which can disrupt the regular release of eggs from the ovaries during ovulation. Because of irregular menstrual cycles or a lack of ovulation, this disruption in egg production can result in infertility or difficulty conceiving.

Polycystic Ovary Syndrome has also been linked to other factors that may contribute to infertility (Hart, 2008), such as obesity and diabetes (Witchel et al., 2020). Obesity increases insulin resistance, which disrupts hormone balance and makes it more difficult for women with PCOS to conceive naturally. Diabetes also causes insulin resistance, which can interfere with egg maturation and implantation into the uterine lining after fertilization.

Other medical disorders, such as *thyroid diseases* (Mintziori, 2022) - Thyroid disease and infertility are closely related. The thyroid is a small, butterfly-shaped gland located in the neck that produces hormones that regulate metabolism, growth, and development. When the thyroid does not produce enough of these hormones (hypothyroidism) (Gaitonde, Rowley, & Sweeney, 2012) or too much (hyperthyroidism) (Reid & Wheeler, 2005), it can cause fertility issues for both men and women. In women, hypothyroidism can lead to irregular menstrual cycles or even amenorrhea (absence of menstruation). This makes it difficult for a woman to become pregnant because ovulation may be infrequent or absent altogether. According to Martin, (2019), hyperthyroidism can also affect fertility by causing premature ovarian failure, leading to early menopause in some cases. In addition, both conditions can cause an increase in prolactin levels which interfere with ovulation as well as implantation of the fertilized egg into the uterus wall.

For men, Alahmar et al. (2019) discovered that hypothyroidism is linked to decreased sperm count and motility while hyperthyroidism has been associated with increased levels of follicle-stimulating hormone (FSH) which affects sperm production negatively (Al-Saaidi & Al-Bedary, 2022). Both conditions have also been linked to erectile dysfunction (Gabrielson, 2019) due to hormonal imbalances caused by abnormal thyroid function.

***Cervical mucus issues*** (Vatsa, 2022) – Cervical mucus is essential for fertility and conception. It is a fluid produced by the cervix that aids in the transportation of sperm to the uterus and fallopian tubes, where fertilization can occur. Cervical mucus issues can result in infertility or difficulty conceiving.

Hypo-mobility is the most common cause of cervical mucus problems, which occurs when the cells lining the cervix cannot produce enough healthy mucus for sperm to swim through (Haas, 1986). This may be the result of an infection, inflammation, hormonal imbalances, or other factors. Due to thickened or obstructed cervical mucus, hypo-mobility can also hinder sperm's ability to reach their destination. If the pH of cervical mucus is too low (below 7), sperm may not be able to survive long enough for fertilization to occur. In addition, if the cervical fluid does not contain enough water, it may become too viscous and impede the movement of sperm as well as shorten their lifespan once they enter it. In certain instances, women may experience an allergic reaction or sensitivity to sperm, causing their cervical mucus to produce antibodies that attack any incoming sperm.

***Cervical infections***, particularly human papilloma infection (Yuan et al., 2020) - Infections of the cervix occur when bacteria or viruses enter the cervix and cause inflammation or irritation. Sexually transmitted diseases (STDs) such as chlamydia and

gonorrhoea, as well as other bacterial or viral agents such as Human papillomavirus, can all cause these infections (Van Der Pol, 2014; Sterling, 2016) When these organisms infect the cervix, scarring occurs, preventing sperm from entering the uterus and fertilizing an egg. This obstruction prevents natural conception, resulting in infertility in some cases.

Cervical infections, in addition to preventing sperm from entering the uterus, can cause pelvic inflammatory disease (PID). When an infection spreads beyond the cervix into other parts of the reproductive system, such as the fallopian tubes and ovaries, PID occurs. The resulting inflammation damages these organs, making it difficult for eggs to be released during ovulation or for sperm to reach them for fertilization, both of which contribute to infertility issues in women with PID.

***Cervical stenosis*** (Hur & Goldberg, 2022) - Cervical stenosis is a condition in which the cervix, or uterine opening, narrows as a result of scarring or other damage. This can lead to infertility and difficulty conceiving.

The cervix is crucial in fertility because it allows sperm to enter the uterus and fertilize an egg. This process is hampered by cervical stenosis because the opening of the cervix is too narrow for sperm to pass through. As a result, without medical intervention such as artificial insemination or IVF, conception may be impossible (in vitro fertilization). Cervical stenosis, in addition to narrowing the cervical opening, can cause changes in mucus production, making it difficult for sperm to survive long enough to reach an egg. The mucus produced by a healthy cervix protects and nourishes sperm as it travels toward fertilizing an egg; however, when there are changes caused by cervical stenosis, this protection is lost, making successful conception more difficult.

Women who are having difficulty conceiving due to suspected cervical stenosis should seek medical advice from their health professionals so that appropriate treatment options can be provided.

***Uterine factors***, such as fibroids (Freytag et al., 2021) - Uterine factors such as fibroids, Adenomyosis, polyps, endometriosis, and scarring can all contribute to female infertility.

Fibroids are noncancerous growths that form in the uterus and can cause fertility issues if they become large enough to interfere with implantation or block the fallopian tubes. Because of their size and location within the uterus, fibroids can cause pain during intercourse or menstrual cramps. Fibroids are typically treated with medications or surgery, depending on their severity.

Adenomyosis occurs when tissue from within the uterus grows into its muscular wall, causing heavy bleeding during menstruation as well as pelvic pain and pressure throughout the month (Matalliotakis et al., 2003). This condition frequently necessitates surgical intervention to restore normal uterine function so that conception can occur naturally without medical intervention.

Polyps are small growths on the lining of your cervix or uterus that can prevent sperm from properly entering your reproductive tract, making it difficult to conceive naturally without medical assistance.

***Fallopian tube abnormalities*** (Gonullu et al., 2022; Ambildhuke et al., 2022; Sun et al., 2020), such as bilateral tubal obstruction, may also lower conception chances - Fallopian

tubal abnormalities may contribute to infertility. These abnormalities can prevent the egg from fertilizing or preventing it from reaching the uterus for implantation.

In women's reproductive systems, the fallopian tubes are two thin tubes that connect the ovaries to the uterus. They are crucial in fertility because they transport eggs from the ovaries to the uterus, where they can be fertilized by sperm cells during sexual intercourse or through assisted reproductive technology (ART). When these tubes become blocked or damaged due to infections, scarring, endometriosis, pelvic inflammatory disease (PID), ectopic pregnancy, surgery, or birth defects, it can lead to infertility because the eggs cannot reach their destination for fertilization and implantation in the uterine wall.

If there is no distension, the tubal blockage or damage can be repaired with laparoscopic surgery or bypass, and the patient can choose ART procedures (Godin, et al., 2019).

***Scarring from pelvic surgery*** (Nobuta et al., 2022) - Pelvic surgery is a common treatment for conditions such as endometriosis and fibroids. Unfortunately, it can also cause scarring, which in some cases can result in infertility.

Scar tissue develops when the body heals itself following an injury or surgical procedure. The surgeon may need to cut through layers of tissue and organs to reach the area being treated during pelvic surgery. As a normal part of the healing process, scar tissue forms after tissue injury has occurred, such as when an incision is made. Scar tissue can impair fertility by blocking or narrowing fallopian tubes or other reproductive organs such as the ovaries or the uterus. Scarring may also affect hormone production, disrupting normal menstrual cycles and making it difficult to conceive naturally. Furthermore, adhesions (bands

of fibrous connective tissue) caused by scarring can distort anatomy, making conception difficult even when there is no blockage.

There are, thankfully, ways for women who have had pelvic surgeries that have resulted in scarring-related infertility issues to manage their condition so that they can still conceive naturally or with assisted reproductive technologies.

***Endometriosis*** (Kolanska et al., 2021) - Endometriosis occurs when the tissue that normally lines the uterus grows outside of it. This can result in discomfort, heavy periods, and infertility. Endometriosis is estimated to affect 10% of women of reproductive age globally, making it one of the most common causes of female infertility. Endometrial tissue can attach to other organs, such as the ovaries or fallopian tubes when it grows outside the uterus (Bulletti et al., 2010). This can cause inflammation and scarring in these areas, which can prevent sperm from reaching an egg or fertilized eggs from implanting in the uterus (Kitaya, Takeuchi, Mizuta, Matsubayashi, & Ishikawa, 2018). Furthermore, endometrial growths may produce hormones that disrupt normal ovulation cycles and disrupt fertility treatments, such as in vitro fertilization.

Several factors may increase a woman's risk of developing endometriosis, including genetics, environmental exposures such as dioxins and PCBs (polychlorinated biphenyls), early onset menstruation before age eleven, short menstrual cycles (less than 27 days), and high levels of estrogen relative to progesterone hormone levels during menstruation cycle phases known as luteal phase defect (LPD).

***Pelvic Inflammatory Conditions*** (Anyalechi, et al., 2019) – Pelvic inflammatory conditions (PICs) are a type of infection that can affect a woman's reproductive organs.

Chlamydia and gonorrhoea infections can cause inflammation and scarring of the fallopian tubes, uterus, ovaries, and other pelvic organs. If left untreated, this damage can lead to infertility. PICs are one of the leading causes of infertility in women worldwide, with up to 30% of cases being caused by these infections.

When a woman contracts a bacterial infection, such as chlamydia or gonorrhoea, her body responds with an immune response that causes inflammation and swelling in the affected area (Darville, 2021). This inflammation can cause scarring on the delicate tissues inside the pelvis, including those surrounding the fallopian tubes and ovaries. As a result, sperm cannot reach the eggs for fertilization, and embryos cannot travel down into the uterus for implantation. This damage may also prevent eggs from being released during ovulation in some cases.

### **Sterilization**

According to Kleinplatz & Weindling (2022) and Gonullu et al. (2022), female sterilization is a type of contraception in which the fallopian tubes are surgically blocked to prevent pregnancy. It is one of the most popular methods of birth control in the United States, with over 600,000 women undergoing it each year. Female sterilization, while effective for preventing pregnancy, can also be used to treat infertility.

Infertility affects millions of couples worldwide and can have a variety of causes. Fertility problems are sometimes caused by blocked or damaged fallopian tubes, which prevent eggs from traveling from the ovaries to the uterus to be fertilized by sperm (Parmar et al., 2021). In some cases, female sterilization surgery can help unblock these tubes and restore fertility.

The procedure itself entails making small incisions near each fallopian tube and inserting a tiny device known as a micro-insert into them. The micro-inserts act as plugs, preventing the egg from travelling down into the uterus for fertilization. This eliminates the possibility of conception while allowing normal menstrual cycles and hormone production to continue without interruption or side effects. Female sterilization has other benefits besides restoring fertility in some cases, such as lowering risk factors for certain types of cancer, such as ovarian cancer.

**Genetic disorders** such as Turner syndrome (Gravholt et al., 2019) can create aberrant chromosomal patterns and account for up to 7 percent of cases - A variety of factors can contribute to infertility, including genetic disorders such as Turner syndrome and Klinefelter syndrome. These disorders are caused by chromosomal abnormalities, which can result in infertility in both men and women.

Turner Syndrome is a genetic disorder in which one of the two X chromosomes normally found in females is absent or partially absent. As a result, they have short stature, a webbed neck, a low hairline at the back of the neck, a broad chest with widely spaced nipples, and swollen hands and feet. In addition to these physical characteristics, people with Turner Syndrome may be infertile due to ovarian failure or an absence of ovaries (Gravholt et al, 2019).

Klinefelter Syndrome is another male-only genetic disorder that occurs when there are extra copies of the X chromosome (XXY). Tall stature and small testes size are symptoms of this condition, which leads to reduced testosterone production and decreased fertility potential in men. Breast enlargement (gynecomastia), sparse facial hair growth, and difficulty learning

language skills during childhood development stages are other symptoms (Bearely & Oates, 2019).

*Asherman's Syndrome* - Asherman's syndrome occurs when scar tissue forms in the uterine cavity, causing blockages or adhesions that prevent sperm from reaching an egg (Dreisler & Kjer, 2019). Asherman's syndrome is most commonly caused by damage to the uterine lining damage caused by surgery, infection, or trauma. The severity of Asherman's syndrome is determined by how much scar tissue has formed and where it is located within the uterus. In some cases, only a small amount of scarring may be present, and fertility may be unaffected; however, if there are large amounts of adhesions blocking off parts of the uterus, infertility may occur.

To become pregnant, a woman with Asherman's syndrome must first undergo treatment to remove any existing scar tissue and reduce inflammation in her reproductive organs (Benor, Gay, & DeCherney, 2020). This typically entails laparoscopic surgery as well as hormone therapy such as progesterone supplementation or IUD insertion. Many women can conceive naturally after successful treatment; however, some may require additional treatments such as IVF (Guo, Chung, Poon, & Li, 2019). Anyone who suspects they have Asherman's Syndrome should seek medical attention right away so that appropriate diagnosis and treatment can begin. Early detection and management will improve the chances of conception while lowering the risks of long-term complications, such as recurrent miscarriages or ectopic pregnancies caused by blocked fallopian tubes, caused by untreated uterine adhesions.

Asherman's Syndrome plays a significant role in female infertility because it can lead to blockages that prevent sperm from reaching an egg, resulting in difficulty conceiving without medical intervention. Many women can successfully overcome their fertility issues with proper diagnosis and timely treatment.

#### *Male and Female Influences*

***Sexually transmitted infections*** (STIs) are a leading cause of male and female infertility (Tamrakar & Bastakoti, 2019; Tsevat et al., 2017; Bayu et al., 2020). STIs can cause inflammation, scarring, and blockages that prevent sperm from reaching the egg or eggs from being released. Furthermore, some STIs can harm reproductive organs such as the uterus or fallopian tubes. Sexually transmitted infections, such as chlamydia and gonorrhoea are characterized by inflammation that disrupts sensitive mucus secretory glands, where related pathogens spread rapidly through sexual contact and become agents significant enough to cause potential tubal damage and underlying sterility issues (Pai et al., 2020). Additional risk factors include exposing women and men to obstructed fallopian tubes and spermatic ducts respectively, thereby eradicating all conventional egg or sperm-carrying transmission pathways.

In men, STIs can cause inflammation of the testicles and epididymis, which can lead to decreased sperm production or motility (Tsevat et al., 2017). Because of its ability to spread through sexual contact and affect fertility by causing scarring on the epididymis, Chlamydia is one of the most common causes of male infertility (Joki-Korpela et al., 2009). Other STIs that have been linked to male infertility include gonorrhoea, syphilis, HIV/AIDS, genital herpes, trichomoniasis, and human papillomavirus (HPV).

In women, STIs can cause pelvic inflammatory disease (PID), an infection that affects the reproductive organs, including the uterus and fallopian tubes. Bacteria such as chlamydia or gonorrhoea enter these organs through sexual contact with an infected partner and cause PID. The infection then spreads throughout these organs, causing inflammation and, eventually, blocked fallopian tubes, preventing natural fertilization between a man's sperm and a woman's egg (Apari, de Sousa, & Müller, 2014). Furthermore, HPV has been linked to cervical cancer, which if left untreated may result in female infertility due to damage caused by radiation therapy used for treatment.

Couples who are attempting to conceive must be aware of their health status before attempting conception so that they do not transmit infections to their partner during intercourse, thereby reducing the likelihood of future fertility issues. It is recommended that both partners get tested before engaging in unprotected sex so that any existing infections can be treated as soon as possible before they cause further complications such as infertility. Furthermore, using safe sex methods such as condoms significantly reduces the risk of transmission.

***Hormonal Imbalance*** - Hormonal imbalances can cause infertility by interfering with the normal functioning of reproductive organs or hormones (Seth et al., 2013), resulting in ovulation or sperm production issues. Hormonal imbalances in women can cause irregular menstrual cycles, which can prevent ovulation (Olooto et al., 2012). This means that eggs are not released from the ovaries regularly, making conception difficult. Polycystic ovarian syndrome (PCOS), thyroid dysfunction, and prolactin levels that are too high or too low are all common causes of female infertility caused by hormone imbalance.

Hormonal imbalances, such as low testosterone levels (De Kretser, 1979) or abnormal luteinizing hormone levels, also have an impact on male fertility. Low testosterone levels can impair sperm production and motility, whereas LH regulates testosterone production in men. Abnormalities in these hormones can lead to a decrease in sperm count or poor-quality sperm, making natural conception more difficult (Cohen et al., 2020).

Couples dealing with infertility should be aware of potential underlying hormonal disorders so that they can seek appropriate medical advice and treatment options if necessary. Treatment plans will differ depending on the individual case but may include lifestyle changes such as diet changes, medications such as clomiphene citrate (Clomid) for women experiencing PCOS-related infertility issues, surgery for endometriosis-related cases, or assisted reproductive technologies such as IVF/ICSI when other treatments have failed.

On the whole, understanding how hormonal disorders contribute to male and female infertility is critical when looking for effective solutions for this condition, so that couples have access to all available options before considering alternative routes such as adoption or surrogacy services if necessary. Many couples facing fertility challenges were able to find success through their efforts with proper diagnosis and treatment plans tailored specifically to each case, rather than relying solely on outside help from third parties such as donors or surrogate mothers.

*Male Elements*

- **Varicocele** - Also known as varicose veins, this condition causes elevated scrotal temperatures that inhibit sperm production (Bitkin, et al., 2019) - Varicocele is a condition in which the veins surrounding the testicles swell and twist. It affects up to 15% of men and is one of the most common causes of male infertility. Varicoceles can reduce sperm production while also increasing abnormal sperm shape and motility. The exact mechanism by which varicoceles affect fertility is unknown, but it appears that increased temperature within the scrotum as a result of poor circulation may be to blame for some of its effects on sperm quality. The higher temperatures caused by varicocele can harm or kill developing sperm cells, resulting in fewer and lower-quality sperm. Furthermore, inflammatory reactions leading to increased pressure from swollen veins can reduce blood flow to the testes, reducing their ability to produce healthy sperm cells even further (Fang, et al., 2021).

In addition to reduced fertility rates, other potential health risks associated with varicocele include pain or discomfort during sexual activity and an increased risk of testicular cancer. If left untreated, these symptoms may worsen over time, so men experiencing any signs or symptoms of varicocele should seek medical attention immediately if they want to preserve their reproductive health and fertility potential.

Fortunately, treatments such as surgery or embolization procedures designed specifically for this purpose are available to help improve fertility outcomes in men with varicoceles. When compared to no treatment at all, these treatments are effective at restoring normal blood flow through affected veins while also improving sperm parameters such as count and motility. However, patients must understand that even after successful treatment,

there is still a chance that pregnancy will not occur naturally without additional assistance, such as IUI or IVF depending on individual circumstances.

Understanding how varicocele affects male infertility is critical when considering reproductive health options. Many couples facing challenges due to this condition may still be able to achieve their dream of having children together with proper diagnosis, timely intervention, and appropriate follow-up care.

There is the likelihood of hormonal imbalance and hypo-perfusion of the testicles of a patient with varicocele (Majzoub et al., 2019).

- ***Retrograde Ejaculation:*** - Retrograde ejaculation is a condition in which, during orgasm, sperm enters the bladder rather than exiting through the penis (Gupta et al., 2022). Multiple medical conditions, including diabetes, multiple sclerosis, and spinal cord injuries, can cause this. Retrograde ejaculation can also occur after certain prostate cancer surgeries or treatments. Retrograde ejaculation does not cause any physical harm to men, but if left untreated, it can result in male infertility (Abdullahi & Abdullahi, 2020). Retrograde ejaculation prevents sperm from reaching the female reproductive system and fertilizing an egg. As a result, conception without medical intervention becomes impossible. Fertility medications may be used in some cases to stimulate sperm production and increase the likelihood of pregnancy; however, this is not always successful due to low sperm count or motility (movement). Additionally, if other methods fail, artificial insemination may be necessary.

To accurately diagnose retrograde ejaculation and identify its cause(s), specialists typically conduct tests such as urine analysis or ultrasound imaging of the bladder and prostate

gland region. Treatment options vary based on the underlying cause (Fedder et al., 2021), but generally involve medications that relax the muscles around the neck of the bladder, allowing the sperm to exit the bladder normally during orgasm rather than entering it. In some cases where medication fails or when anatomical factors cause a blockage at the neck of the bladder, preventing normal outflow during orgasm, surgery may also be recommended. Therefore, seeking professional advice from your doctor would be highly beneficial in assisting you to gain a better understanding of this condition as well as locating treatment plans that are specifically tailored to your needs.

•***Testicular Trauma*** (Mora, et al., 2022) - Male infertility is frequently caused by testicular trauma. It can be caused by physical injuries such as blunt force trauma or penetrating trauma, as well as medical treatments such as radiation therapy and chemotherapy. Testicular trauma can cause several fertility-related complications, including testicular atrophy, scarring of the seminiferous tubules (the tubes in which sperm are produced), and damage to the blood vessels that supply oxygen-rich blood to the testes.

The most serious complication of testicular trauma is disruption of spermatogenesis or the process by which sperm cells are formed (Leslie et al., 2023). This can lead to decreased sperm quality and quantity, as well as decreased motility (movement) and morphology (shape) of the sperm cells themselves. This can make it difficult for them to reach an egg cell during fertilization, resulting in infertility in men who have had testicular trauma.

In addition to interfering with spermatogenesis, testicular trauma can cause inflammation in the scrotum, resulting in pain and swelling (Raheem & Ralph, 2011). This inflammation may further impede normal reproductive system functioning by blocking vital

pathways required for successful conception. In some cases, surgery may be required to repair any damage caused by traumatic events or medical treatments; however, this should only be done under the close supervision of a qualified physician because surgical procedures involving delicate organs such as those found in the reproductive system are always risky.

It is critical for men who have suffered any type of testicular trauma, whether through physical injury or medical treatment, to seek professional help if they experience any symptoms related to their fertility health, such as changes in sperm quality/quantity or difficulty conceiving after unprotected intercourse over a period of several months. A specialist was able to assess the individual situation and advise on how to best manage the condition for the best chances of naturally achieving fatherhood.

In rare situations, inadvertent abuse may obstruct vital vein flow, inhibiting the formation of sexual hormones, resulting in decreased seminal fluid output during arousal and hypoactive/decreased sexual desire. There may potentially be concerns with reduced penile curve rigidity.

- ***Male Genital Infections:*** - Male genital infections can negatively impact fertility. Infections caused by bacteria, viruses, fungi, and parasites can lead to inflammation of the reproductive organs, potentially resulting in male infertility (Darville, 2021). These infections can impede spermatogenesis or sperm quality (Pai, Venkatesh, & Gupta, 2020), as well as produce scars that restrict the flow of sperm. These include inflammations of the epididymis and testicles, such as epididymitis and orchitis, as well as certain sexually transmitted diseases, such as gonorrhoea or HIV (Zambrano & Fullá, 2021; Van Der Pol, 2014; Tracy et al., 2008)

Chlamydia is the most common male genital infection (Joki-Korpela, 2009). The urethra and epididymis are affected by this bacterial infection (the tube that carries sperm from the testicles). Chlamydia can cause scarring in these structures, preventing sperm from reaching the egg for fertilization. Furthermore, it can reduce sperm motility (movement) and viability (ability to survive), lowering the chances of conception even further.

Gonorrhoea is another common male genital infection. In men, this bacterial infection affects both the urethra and the prostate gland (Apari, de Sousa, & Müller, 2014). It causes inflammation of these structures, which leads to decreased sperm production as well as decreased sperm quality due to an increase in white blood cells. As a result, there may be fewer viable sperm available for fertilization, or none at all, if the infection has caused enough damage.

Viral infections, such as HIV/AIDS or herpes simplex virus type 2 (HSV-2) can also impair male fertility by causing inflammation or scarring within the reproductive system, preventing normal sperm transport through its pathways to ovulation sites, where it would normally meet with eggs for fertilization (Khawcharoenporn & Beverly, 2016). Furthermore, some viral infections, such as HPV, can cause cancerous growths in these areas, causing permanent damage that cannot be reversed without surgical intervention, making conception impossible until the infection is successfully treated.

Finally, fungal infections such as candidiasis may contribute to infertility due to their ability to disrupt and induce necessary anatomical changes for reproductive organ function. They achieve this by affecting sperm motility through the infection's viscous barrier and

detritus, thereby disrupting the normal sperm flow necessary for successful reproduction. (Kranjčić-Zec et al., 2004).

Ultimately, male genital infections should not be taken lightly because they can have serious consequences, including infertility if left untreated for an extended period. As a result, it is critical to seek medical attention as soon as any symptoms related to them are noticed to avoid potential complications.

- **Genetic disorders** (Kuroda et al., 2022) - Genetic disorders are conditions caused by alterations in a person's genes or chromosomes; they can have a significant impact on fertility. Infertility can be caused by genetic disorders in both men and women. In males, genetic abnormalities may result in a low sperm count or poor motility (Wang et al., 2021). This makes it more difficult for sperm to reach an egg and fertilize it. In women, genetic abnormalities can interfere with ovulation and embryo implantation in the uterine wall.

In some cases, genetic disorders can cause structural problems in the reproductive organs, such as blocked fallopian tubes or an abnormally shaped uterus, which make conception more challenging. In addition, chromosomal abnormalities such as Turner Syndrome (XO) (Gravholt et al., 2019) and Klinefelter Syndrome (XXY) (Bearely & Oates, 2019) can cause infertility due to hormonal imbalances that prevent regular ovulation.

It is essential for couples struggling with infertility to consider whether genetics may be a factor in their inability to naturally conceive. In such cases, some treatments may assist them in becoming pregnant despite their underlying disorder (s). These include IVF/IUI (Montag and Morbeck, 2017; Vatsa et al., 2022), GIFT/ZIFT (Gamete Intra-Fallopian Tube Transfer/ Zygote intra-Fallopian Tube Transfer) (Åbyholm & Tanbo, 1993), donor

eggs/sperm/embryos (Thaldar, 2020), and preimplantation genetic diagnosis (PGD) (Harper & Wells, 1999), depending on the individual needs and circumstances of each couple.

Understanding the role of genetics in one's fertility journey is crucial for those seeking treatment options for infertility caused by genetic disorders and other underlying medical conditions. Despite their unique challenges, individuals affected by these conditions have a chance of achieving successful pregnancies if they receive a proper diagnosis and expert care.

### **Infertility Caused by Psychological Factors**

Infertility is a major concern worldwide, and it is now believed that psychological factors play an increasingly important part in it (Cousineau & Domar, 2007). This sub-theme focuses on the literature review on infertility caused by psychological variables, analyzing new research studies conducted to evaluate the impact of mental health concerns such as anxiety and depression on fertility.

The analysis of the scientific literature showed several putative physiologic routes through which emotional trauma may affect reproductive success (Sherrod, 2004). According to Swift et al, (2021), cortisol, which is released in reaction to physical or mental stress, might interact with chemicals important for ovulation, resulting in lower fertility. Furthermore, poor food habits connected with intense emotions such as sadness were found to be linked with a higher risk of infertility, both overt and covert, through impaired BMI-associated diseases such as polycystic ovarian syndrome (PCOS) (Womens Health, 2014).

In addition, it has been found clinically that an individual's self-perception has a significant part in determining a couple's fertility prospects, demonstrating how emotional

narrative influences the physical environment in the sense of reproductively related elements, which Athan (2020) hypothesizes may be connected more with reproductive self-identity.

Beyond the immediate physiological impacts, there are several additional factors associated with "psychological trauma-related events" that have already been described (Kumari & Mukhopadhyay, 2020). These ancillary contributing variables assume a variety of views ranging from the stigma associated with certain cultures or certain life events to psychosocial factors addressing "interpersonal relationship dynamics" across genders. In addition, this review covers literature from both empirical studies and historical publications that imply that there are numerous emotional health reasons for infertility, including depressive episodes (Pawar et al., 2019), shock, anxiety (Yang et al., 2022), social phobia (Zhao et al., 2022), and post-traumatic stress syndrome (Ahmadi et al., 2020). Additional potential risk factors include low self-esteem, difficulty discussing specific family-planning challenges with partners or spouses, communication issues related to infertility, and gender role conflicts brought on by traditional sex roles in marriage. In addition to rising rates of infertility owing to physiological disorders affecting reproductive systems in both men and women, psychosocial factors may play a role in delaying conception beyond what would be expected based purely on physical factors influencing fertility (Jakšić et al., 2022).

Significant psychological barriers can also arise during pregnancy for short periods, increasing the likelihood of miscarriage for individuals who do conceive; complicating these results further. He et al. (2019) suggest that elevated levels of anxiety during pregnancy can significantly increase the risk of pregnancy failure, regardless of the gestational age at which termination occurs, with pregnancy losses ascribed to physiological responses that induce abortion. Aimagambetova et al. (2020) demonstrated that psychological factors such as stress,

anxiety, sadness, and other mental health difficulties can play a substantial role in male or female infertility, particularly on IVF outcomes. Additionally, lifestyle choices such as smoking, alcohol consumption, and recreational drug use were found to increase the chance of infertility (Kawale et al, 2022).

Moreover, social constraints associated with gender norms and expectations have been highlighted as potential factors contributing to psychosocial issues associated with infertility (Gullo et al., 2021). Finally, it is suggested that future research should focus on the development of effective strategies to ease the psychological burden experienced by infertile individuals due to these psychological issues.

### ***The Social Causes of Infertility***

Several social factors contributing to infertility have been postulated by research (Araoye, 2003; Nasim et al., 2019; Hasanpoor-Azghady et al, 2019; Yilmaz et al., 2020). This includes, but is not limited to stress, depression, and other psychological problems; relationship disruption due to various reasons (such as divorce); lifestyle choices, such as cigarette or drug smoking, alcohol intake; socioeconomic status (SES), which includes educational attainment levels and income level discrepancies between spouses; cultural attitudes regarding parenthood, among others. Social scientists such as Gipson et al. (2020) have discovered a correlation between the social background of infertile couples and their likelihood of successfully resolving infertility with therapies like ART.

Research by Simionescu et al. (2021) indicates that psychological stress can substantially impact female infertility; however, Ganesh et al. (2020) contend that socioeconomic status is consistently associated with female infertility rather than male

infertility issues. Moreover, researchers have recognised the potential of feminist economics to address gender bias, striving to enhance the economic system's functionality to ensure equitable access to dignity for all individuals. This includes interventions aimed at treating reproductive challenges, thereby promoting a quality life grounded in equality (Agenjo-Calderón & Gálvez-Muñoz, 2019). Additionally, it encompasses disparities in healthcare access and diverse empowerment strategies employed by those impacted by infertility, influenced by their sociocultural backgrounds.

Although Abebe et al. (2020), in their systematic review and meta-analysis of primary and secondary infertility in Africa, focused on physiological causes such as pelvic inflammatory disease, tubal factors, oligospermia, and abortion, Greil et al. (2011) and Sheriff (2019) identified social factors contributing to infertility, including stress, lifestyle choices, workplace influences, and cultural perspectives. Age is also considered to be a key factor in affecting the probability and severity of infertility.

It is suggested that to increase their chances of conceiving, couples battling with infertility should focus on adopting healthier living habits, managing any stressors they can influence, ensuring proper nutrition through food or supplementation, and, if necessary, obtaining professional support. Other strategies, such as reducing exposure to environmental pollutants, may also improve fertility health outcomes, but more research is required before definitive conclusions can be drawn about their effectiveness.

Studies by Thoma, Fledderjohann, Cox, & Adageba, 2021, Zhang, et al. (2021) and Kaya & Oskay (2020), have demonstrated that there are a lot of societal factors contributing to infertility including the following: Anxiety and stress can alter bodily functions in ways

that make it hard to conceive or sustain a pregnancy; Inadequate diet and nutrition might hinder fertility owing to deficits in vital vitamins and minerals, anaemia, weight gain or loss; Lack of physical activity increases risk factors such as diabetes and cardiovascular disease, both of which can contribute to infertility in both men and women, and contaminants from pesticides, industrial pollutants, plastics, etc. might affect hormonal balance, hence increasing reproductive health risk factors.

### **Infertility by Choice**

This sub-theme examines one of the causes and consequences of intentional infertility, which occurs when women choose to stay infertile or delay having children until later in life. Infertility, once believed to be a medical condition caused by genetic issues (Kuroda et al., 2022; Barber & Franks, 2010), environmental toxins (Mann, 2020), poor nutrition (Leisegang & Dutta, 2021; Deepak Kumar et al., 2023), or hormonal imbalances in women (Womens Health., 2014), is now often achieved voluntarily through modern technological means such as tubal ligation (Gonullu, 2022; Ambildhuke, Pajai, Chimegave, Mundhada, & Kabra, 2022), soft sterilization (Winters & McLaughlin, 2020), Ostia occlusion (Sung and Abramovitz, 2019), and fertility awareness methods such as intrauterine contraceptive device insertion (IUCD)(Valsky, Cohen, Hochner-Celnikier, Lev-Sagie, & Yagel, 2006; Agrawal, et al., 2021).

This sub-theme of the literature review examines why some women choose lifelong childlessness while others make more effective use of reproduction technologies so they can try to conceive at a later age without compromising their health potential. The primary sources are reports from scientific studies, published journals related to the topic, literature reviews on surveys conducted with various groups of people who decided not to have children despite

being healthy and physically able to reproduce, and the online library resources of the Unicaf University.

In most cases, economic constraints stemming from unstable employment prospects and increased educational costs associated with higher education opportunities made available in recent years as a result of societal advancements were cited (Browning, 2007) as reasons for delaying or avoiding pregnancy, even if it had been planned. Numerous members of our culture perceive infertility as a cause of distress and frustration. However, in recent years, there has been a surge in the number of persons who choose infertility for various reasons. Numerous communities in Europe and North America have witnessed an increase in fertility by choice due to a variety of social influences. Environmental concerns, job aspirations, and shifting gender roles, as well as their possible repercussions on families and communities, appear to be significant personal drivers behind such a decision (Browning, 2007). Moreover, current trends such as greater mobility might further complicate efforts to address such issues in the most efficient manner feasible on both the individual and community levels.

Based on existing evidence from relevant studies, ethical considerations associated with intentional infertility are becoming an increasingly important topic of study (Maung, 2019). The decision to become a parent may be influenced by stigmas associated with older moms as well as by environmental and societal expectations. Other factors, such as generational traditionalism, self-sacrifice, religious body consecration (Issa, 2021), job progress, and avoiding the emotional investments required in raising one's children, all play a significant role in decision-making.

## **Ignorance-based Infertility**

Infertility and childlessness are pervasive throughout the world (Inhorn & Van Balen, 2002). So many families are in misery as a result of various disturbing anecdotes and tales about their inability to have their children, yet the world is blind to the fact that it is on the verge of collapse. Ignorance refers to both intentional and institutional types of non-knowledge, ambiguities, and concerns regarding iatrogenic hazards, health consequences, or the ineffectiveness of many activities linked to infertility therapy.

According to researchers at the Hebrew University of Jerusalem, the sperm count of men in the West has decreased by more than 50 per cent over the past four decades and is declining at an average rate of 1.4% every year (Weinreb et al., 2018). Soon, humanity would become extinct. This is a frightening discovery that many non-scientists are unaware of, and few experts feel a significant crisis is imminent, while many disregard the gloomy forecasts. In reality, the study, *Temporal Trends in Sperm Count*, by Levine et al. (2023) which was just recently published, corroborates the decline in sperm counts by evaluating more than 100 earlier studies in reproductive health. It has been hailed as both an alarming and groundbreaking study that should be a wake-up call (Levine et al., 2023). The difficulty is a lack of knowledge regarding the reason for this reduction in sperm count and the appropriate treatment. According to the World Health Organization, present knowledge of male infertility is quite limited; the UK Medical Research Council has acknowledged this relative ignorance, too.

However, efforts are made to invest substantial resources in research in this area of ignorance. According to Maffi (2022), it is critical to investigate the impact of ignorance on

reproductive studies because, as Owens (2017) argues, several regular technology treatments and practices lack clinical proof for improving health outcomes, rendering dependence on them a form of ignorance (Maffi, 2022; Owens, 2017). Nonetheless, the development of technology that is effective and scientifically validated can aid in reversing the global decline in fertility. This innovative technological approach is required not because the end of mankind is imminent through this rapid infertility decline but because this trend could be devastating on an individual and family levels. In advanced economies, where couples have children considerably later in life, the problem is greater. In 2014, 52 percent of live births in the United Kingdom occurred to mothers older than 30 years old, primarily influenced by technological advancements, despite the diminishing probability of conception with advancing age.

According to DeNicola (2018), “ignorance thrives because we are so ignorant”, and the riddle of this ignorance is that practically everything, including smartphones, computers, medications, and contaminated water, has been implicated in the reduction in sperm counts, even though there is no conclusive evidence linking them to infertility. Nonetheless, a criticism of some of these observational studies is that they were conducted on men who attended infertility clinics and were more inclined to have low sperm counts.

The other area of ignorance is the couple's choice of infertility clinic or style of therapy. The factors that influence individuals' decisions regarding where to seek medical treatment for infertility remain obscure (Passet-Wittig & Greil, 2021). Essentially, the corpus of research on this topic is varied and fractured.

## **Fraudulent Infertility**

Infertility fraud refers to unethical actions involving the fraudulent diagnosis or treatment of a reproductive problem (Fox, 2022). This could include falsified lab findings, doctor visits for therapies that do not exist, and other things. Patients' actively seeking resources to assist in beginning or growing a family are exposed to prescription fraud and other sorts of fraudulent techniques relating to fertility Medicare services. This section gives an overview of how scammers are taking advantage of people who are having trouble getting pregnant, as well as important steps people can take to protect themselves. It also reveals the role of patients in falsely claiming to be pregnant.

There are two types of fraudulent infertility: healthcare provider-centred and patient-centred.

### *Healthcare provider-centred fraudulent infertility*

Fraudulent infertility is a rising problem in the medical business, with many people and organizations preying on naive people who are trying to conceive a child or are experiencing reproductive troubles. Frauds involving bogus drugs, improper clinical trials, or unlicensed health practitioners promoting untested procedures are all examples of fraudulent infertility therapies (Jayadevan, 2009). It can also take numerous forms, such as bogus sperm donors or fertility specialists that give incorrect advice to earn a profit.

The root cause of fraudulent infertility is dishonest business practices and unethical medical experts who prey on desperate couples seeking help through what they believe to be trustworthy avenues. Because there are few checks and balances on fertility treatments due to a lack of industry regulation, this form of fraud offers easy profits.

Fraudulent infertility can have terrible consequences for unwary victims, crushing their hopes for parenthood due to inept operations performed by unscrupulous clinics or other individuals claiming competence beyond their qualifications. Furthermore, this type of illegal behaviour helps to establish black markets where counterfeit pharmaceuticals or compounds may be mistakenly provided during "miracle" cures, increasing safety concerns while raising overall expenses due to both direct financial theft (such as exaggerated invoicing) and secondary ones such as extended legal proceedings following surveillance that could set back objectives established many years ago (Rinehart, 1994).

To combat the escalation of fraudulent activities associated with infertility, greater awareness about these issues must be created, particularly among those seeking assistance. Often, bringing public attention to these issues would help significantly enhance knowledge about potential dangers if organizations were not fully vetted in advance; otherwise, one could not blindly trust an organization's reliability.

Patients should conduct extensive research before agreeing to any type of testing or care associated with fertility specialists, in-vitro fertilization doctors, hospitals, clinics, and so on. Inquire about fees up front, and read internet reviews with caution because they may have been submitted by people connected with the centre being reviewed. Make every effort to check any information offered on websites and, if possible, speak directly with different service providers before making a decision (Duthie et al., 2017).

Further legislative action should be taken to impose higher rates of punishment for offences discovered (Rinehart, 1994). Furthermore, extending local supervision and

surveillance support is a common answer around the world. This approach may lower the incentives for offenders, thus safeguarding the community from future fraud.

*Patient-centred infertility fraud*

There is a rise in the number of infertile women who are pretending to be pregnant to avoid social disgrace or to prepare for adoption. Some women may attempt to conceal their infertility by faking a pregnancy, as having children is typically viewed as crucial in many cultures and civilizations (Daibes et al., 2018). It can also assist couples who are unable to adopt owing to age limits, administrative constraints, or financial difficulties. To be eligible for adoption programs, adoptive parents-to-be may be required to provide evidence of a prior pregnancy that inspired them to pursue adoption rather than conceive naturally (Feasey, 2019).

Faking pregnancies (Adesiyun et al., 2012) entails a variety of deceptive strategies, such as wearing baggy clothes and padding clothing items with pillows stuffed beneath outfit layers, even doctors have encountered cases in which patients present symptoms only associated with advanced stages of motherhood when, just days prior, they did not appear in her medical records. Interrogating falsely pregnant parties over time reveals that the majority of cases boil down to a single overwhelming desire. A common indicator among couples who fake pregnancy is the desire for temporary stress relief through what appears to be an overall effortless plan execution, and faking a child after months of pretending to be pregnant. Fraudulence in this context does not pertain to efforts aimed at low-cost IVF as proposed by Pilcher (2006), but rather to the creation of hope through individuals' validation by simulating conception.

Even though faking a pregnancy carries risks that, if ignored, could jeopardize both the mother's health and well-being, it must be acknowledged that many stakeholders should regard this strategy as an anomaly fraught with inherent dangers. Faking a pregnancy is an increasingly prevalent phenomenon that can take on a variety of shapes and include a wide range of individuals. For infertile women, the desire to "fit in" or avoid the shame associated with infertility may be strong enough to motivate them to participate in deceit by pretending to be pregnant. This practice of faking a pregnancy has emerged as a result of both social pressures and breakthroughs in medical technology that make conception simpler than ever before.

Some individuals who wish to conceal their infertility as well as prepare themselves emotionally and physically (in terms of clothing) engage in fake pregnancies, which entails carrying around false indicators such as enlarged stomachs and stuffed bellies and convincing others that they are pregnant. Additionally, there are occasions in which expectant parents do complicated psychological preparations, such as hiring "maternity photography" services and purchasing all required parenting materials, to be prepared for the unknown. Those who are arranging adoption procedures (Omosun & Kofoworola, 2011) may even organize elaborate celebrations, such as setting up nursery rooms with mattresses, cribs, rocking chairs, and diapers.

Infertile women who fake a pregnancy for whatever reason face several problems and dangers. This is because when a woman begins to "show," the reality behind her false claim of pregnancy will eventually be disclosed, and all parties associated with her are exposed to lies or misleading information. Faking pregnancy requires the creation of an intricate story

and a circumstance revolving around the establishment of a new identity including varied degrees of deception, which, if discovered, might result in major legal consequences.

Pretending to be pregnant has unquestionably become more prevalent among infertile women in recent years, as society's understanding of infertility has increased alongside technological advances such as embryo transfer procedures, which allow couples to conceive a child despite previous failures with other fertility treatments. Furthermore, unmarried individuals looking into adoption could also resort to making up stories about their impending motherhood (Makinde et al., 2016); however, this ultimately puts too much pressure on them, particularly when people start asking questions to verify these supposed pregnancies. This description, according to Cohen (1982), is distinct from Pseudocyesis, which is distinguished by the presence of many pregnancy-related symptoms in the absence of a real embryo. Similarly, some males suffer couvade, which is sometimes referred to as "sympathetic pregnancy." Only recently have scientists begun to comprehend the mental and physical processes producing pseudocyesis. Although the underlying causes are unknown, researchers believe psychological factors may cause the body to "feel" pregnant.

Pseudocyesis is also distinct from false pregnancy for financial gain or pregnancy delusion, as seen in patients with paranoid disorder (Espiridion, 2020). Women with pseudocyesis display symptoms as pregnant women (Vazifdar & Gavali, 2022), including disruption of the menstrual cycle, a distended abdomen, breast enlargement and soreness, nipple alterations, and even lactation (Yanti, 2019). Sometimes, women with a fake pregnancy present to the hospital with labour-like symptoms.

## ***Medical Fertility Services and Their Impacts on Decision-Making***

### *I: Infertility Evaluation Overview*

Infertility evaluations are a crucial process for infertile couples to determine the cause of their infertility (Makar & Toth, 2002; Kuohung & Ornstein, 2016; McLaren, 2012; Pathak et al., 2020). These evaluations involve a series of examinations and tests to identify potential obstacles to conception (Pierik et al., 2000; Pei, 2022). The primary objective is to identify any underlying medical conditions or factors contributing to the couple's inability to conceive (McLaren, 2012). Physical examinations and laboratory tests are conducted to evaluate reproductive health and identify abnormalities in hormone levels, sperm count, and ovulation cycles. Depending on the results, fertility specialists may recommend additional diagnostic procedures like hysterosalpingography (HSG) (Chalazonitis et al., 2009) or laparoscopy (Hur & Goldberg, 2022). The evaluation also helps couples determine which treatment best suits their needs and lifestyle (Flyckt and Falcone, 2019). If no medical issues are identified, advanced medical treatments like artificial insemination or IVF may be chosen. If a specific condition is identified, more targeted treatments may be recommended. An infertility evaluation provides couples with valuable information about their fertility status, enabling them to make informed treatment decisions (Wells, 2023)

### *II: Importance of accurate history taking in infertility and the psychosocial effects on couples*

Infertility evaluation begins with a thorough history, which is critical in identifying potential causes and shaping subsequent treatment plans (Donnez & Jadoul, 2004; Jensen, 2016). This process entails obtaining detailed medical, surgical, reproductive, lifestyle, and

environmental and family histories from both partners. Menstrual irregularities, previous miscarriages, substance use, chronic illnesses (Loughran & Davis, 2017), and occupational exposures all have an impact on treatment feasibility and prognosis. While clinically necessary, this thorough history-taking frequently elicits strong psychological responses.

Couples dealing with infertility frequently experience emotional distress when discussing their personal reproductive histories, particularly those involving loss, failed treatments, or prolonged uncertainty. As Yang et al. (2022) point out, such narratives can elicit anxiety, guilt, or shame, especially when people are asked to reveal intimate details about their sexual lives. Furthermore, labelling a couple as "infertile" based on clinical assessments can exacerbate feelings of inadequacy and social stigma, influencing how people perceive and pursue treatments (Pines, 1990; Gdańska et al., 2017).

As a consequence, treatment decisions are influenced by these psychosocial experiences rather than being solely based on medical criteria. Couples may postpone or reject invasive options such as IVF due to emotional exhaustion, financial constraints, fear of repeated failure, or cultural and relational conflicts. Thus, infertility treatment options are intricately linked to the psychological burden of diagnostic processes. Healthcare professionals must take an empathetic, trauma-informed approach to history taking, understanding that how this foundational step is handled can influence both treatment engagement and long-term psychosocial well-being.

### *III: The role of physical examination in fertility diagnosis and its psychosocial consequences*

Physical examination is a crucial initial step in diagnosing infertility and informing treatment options, while also possessing considerable psychosocial ramifications for couples

undergoing fertility assessments (Schlegel et al., 2021). The initial fertility assessment entails a thorough physical examination, encompassing the measurement of vital signs such as blood pressure, heart rate, and temperature, alongside a general evaluation of physical appearance, which may provide insights into overall health and indicate the necessity for additional diagnostic testing (Gao et al., 2006).

The physical examination for male patients generally includes a testicular assessment to evaluate size, consistency, and the presence of abnormalities such as hernias or varicoceles (Fadich et al., 2018). The penis is examined for lesions or structural abnormalities that may impact fertility. Prostate examinations are performed when enlarged prostates potentially impede sperm flow (Herr, 2006). These evaluations assist in recognizing treatable conditions that may affect the selection of medical interventions, including surgery or assisted reproductive technologies (ART).

Female fertility assessments entail a comprehensive physical examination that encompasses the evaluation of body composition, patterns of hirsutism, and thyroid function via hormone level analysis. Breast palpation, abdominal examination, and pelvic examinations are conducted to identify abnormalities such as fibroids, ovarian cysts, or infections that may compromise fertility (Pahwa et al., 2015). These findings directly influence treatment decisions, including hormonal therapy, surgical interventions, and in vitro fertilization (IVF) (Makar & Toth, 2002).

Although these physical examinations are crucial for precise diagnosis and treatment formulation, they also impose emotional and psychological burdens on patients. Numerous individuals encounter discomfort, embarrassment, or shame during these intimate procedures, potentially eliciting feelings of guilt or inadequacy concerning their reproductive health (Greil et al., 2010). The procedure may also elicit distressing recollections of prior miscarriages or

unsuccessful treatments, exacerbating emotional turmoil (Fisher and Hammarberg, 2012; Cousineau & Domar, 2007).

Furthermore, the anxiety linked to anticipating test results or fearing an unfavourable diagnosis can exacerbate stress levels, potentially disrupting decision-making and compliance with treatment protocols (Brothers & Maddux, 2003). The diagnostic process can, in certain instances, strain relationships, particularly when one partner perceives blame for the couple's infertility, resulting in emotional discord and diminished marital satisfaction (Roudsari, 2007).

Even when fertility treatments result in successful pregnancies after physical examination, enduring psychosocial effects may remain. Research indicates that women who undergo several unsuccessful attempts prior to conception frequently persist in experiencing psychological distress associated with their fertility journey (Bostanci et al., 2009; Dokras, 2005). This highlights the necessity of incorporating psychological support into fertility treatment, especially during the diagnostic stage (Graziottin, 2006).

In conclusion, although physical examination is an essential diagnostic instrument that guides infertility treatment decisions, it also introduces emotional and relational difficulties that healthcare providers must recognize and address. A comprehensive strategy that integrates medical assessment with psychosocial assistance can reduce distress and enhance both treatment results and patient welfare.

#### *IV: Infertility diagnostic tests and their psychosocial effects on infertile couples*

The initial step in treatment is diagnosis; however, the process of undergoing fertility evaluations can be emotionally draining. Physical examinations, blood tests, imaging, and invasive procedures are all standard components of infertility assessment, and each carries

both clinical utility and psychological weight.

General appearance and vital signs are typically the initial components of a comprehensive physical examination (Gao et al., 2006). For men, testicular exams assess size, consistency, and presence of varicoceles or hernias (Fadich et al., 2018; Fang et al., 2021), while prostate exams may be indicated in cases of obstructive azoospermia (Herr, 2006). Women undergo pelvic exams to evaluate uterine size, adnexal structures, and signs of endometriosis or fibroids (Pahwa et al., 2015). These assessments are essential for obtaining critical data; however, they frequently necessitate intimate exposure, which can result in feelings of shame, discomfort, or body-related anxiety (Greil et al., 2010; Cousineau & Domar, 2007).

Laboratory tests, such as semen analysis, thyroid function, and hormone analysis, provide objective indicators of fertility status (McLaren, 2012; Schwartz et al., 1983). Nevertheless, the stress and uncertainty that can result from multiple blood draws and waiting periods for results can be severe (Brothers & Maddux, 2003). Ultrasound (Kupesic et al., 2005), hysterosalpingography (HSG) (Pei, 2022), and magnetic resonance imaging (MRI) (Sadow and Sahni, 2014) are imaging modalities that aid in the visualization of anatomical barriers. However, they may necessitate uncomfortable positioning or contrast agents, which can induce procedural anxiety.

Surgical diagnostics, such as laparoscopy and hysteroscopy, are required when non-invasive methods of diagnosis are unsuccessful (Hur & Goldberg, 2022; Bettocchi et al., 1996; Carneiro, 2014; Palshetkar et al., 2009). These procedures enable the direct visualization of pelvic organs and can correct specific conditions. However, they are associated with

anaesthesia, recovery time, and the risk of complications, all of which contribute to patient anxiety.

The psychosocial impact of diagnostic testing is significant. In 2012, Fisher and Hammarberg reported that numerous patients experience feelings of vulnerability, embarrassment, and loss of control during examinations. The process may evoke traumatic memories of past miscarriages or failed treatments, intensifying emotional distress (Cousineau & Domar, 2007). Furthermore, the fear of receiving a definitive diagnosis, particularly one implying permanent sterility, can cause anticipatory grief and depression (Roudsari et al., 2007).

Long-term psychological effects persist, even when diagnoses result in successful treatments. Bostanci et al. (2009) discovered that women who had experienced numerous unsuccessful attempts prior to conception continued to report distress regarding their fertility journey. Dokras (2005) observed that emotional scars remained after childbirth as a result of repeated exposure to invasive procedures.

Healthcare providers must therefore acknowledge that diagnosis is not solely a medical procedure, but also a social and emotional one. An empathetic bedside manner, timely counselling, and transparent communication can help to alleviate distress and cultivate trust. To mitigate harm during the diagnostic phase, it is essential to adhere to medical ethics, which encompass autonomy, beneficence, and non-maleficence, as underscored by William (2001) and Daryazadeh (2019).

It is important to recognize and address the emotional impact of diagnostic tools, as they are

essential for guiding treatment. Patients are not only medically informed but also emotionally supported by incorporating psychological support into the evaluation process.

### ***Modern Medical Treatment of Infertility: Effectiveness versus Emotional Impact***

Assisted reproductive technologies (ART) have transformed fertility treatment, providing hope to countless individuals. In vitro fertilization (IVF), intracytoplasmic sperm injection (ICSI), donor gametes, surrogacy, and preimplantation genetic diagnosis/screening (PGD/PGS) have become conventional alternatives; however, their application entails significant emotional, financial, and ethical challenges.

IVF involves retrieving eggs, fertilizing them in a laboratory, and transferring embryos into the uterus. Success rates fluctuate significantly based on age, clinic, and underlying diagnosis, averaging 20–35% per cycle for women under 35 (Montag & Morbeck, 2017). ICSI, a modification of IVF, involves the direct injection of a single sperm into an oocyte, rendering it suitable for cases of severe male factor infertility (Harrison et al., 2021). Although effective, these procedures necessitate hormonal stimulation, regular monitoring, and invasive interventions, all of which lead to physical discomfort and emotional fatigue.

The financial implications of ART are substantial. The average cost in Nigeria differs among clinics, as ART remains inadequately regulated and there is currently no insurance coverage for IVF. While certain nations provide limited coverage numerous patients are compelled to incur out-of-pocket expenses, resulting in financial indebtedness, postponed treatment, or the discontinuation of care (Dunbar & Shultz, 2021).

ART cycles are characterized by fluctuating emotions, including hope, anticipation, anxiety, and grief. Each phase, stimulation, retrieval, transfer, and waiting, carries its own set of stressors. The most emotionally taxing time is frequently characterized as the two-week interval between embryo transfer and pregnancy testing (Cousineau & Domar, 2007). Adverse outcomes may precipitate depression, marital discord, and identity crises (Abbey, Andrews, & Halman, 1995). Furthermore, the pressure to succeed can cause strain in relationships. Partners may vary in their emotional reactions, coping mechanisms, or readiness to persist with treatment (Roudsari et al., 2007). One partner may experience guilt or withdrawal as a result of feeling responsible for the infertility, while the other may express frustration or impatience. In the absence of open communication and reciprocal support, these tensions may undermine intimacy. Notwithstanding these obstacles, numerous couples endure through several cycles. Some find meaning in the process itself, viewing it as an act of love and commitment (Wischmann, 2008). Others report strengthened bonds through shared struggle, openness and good communication (Kiełek-Rataj, 2020). Resilience should not be taken for granted; psychological assessment and continuous counselling are essential to avert burnout.

Ethical dilemmas arise, particularly regarding embryo disposition, genetic selection, and surrogacy. Pre-genetic diagnosis (PGD) facilitates the screening of genetic disorders; however, it raises ethical concerns regarding eugenics and the commodification of embryos (Erden & Brey, 2022). Surrogacy, while enabling parenthood for those unable to carry a pregnancy, involves complex legal, financial, and emotional negotiations (Shchyrka et al., 2020; Singh, 2014).

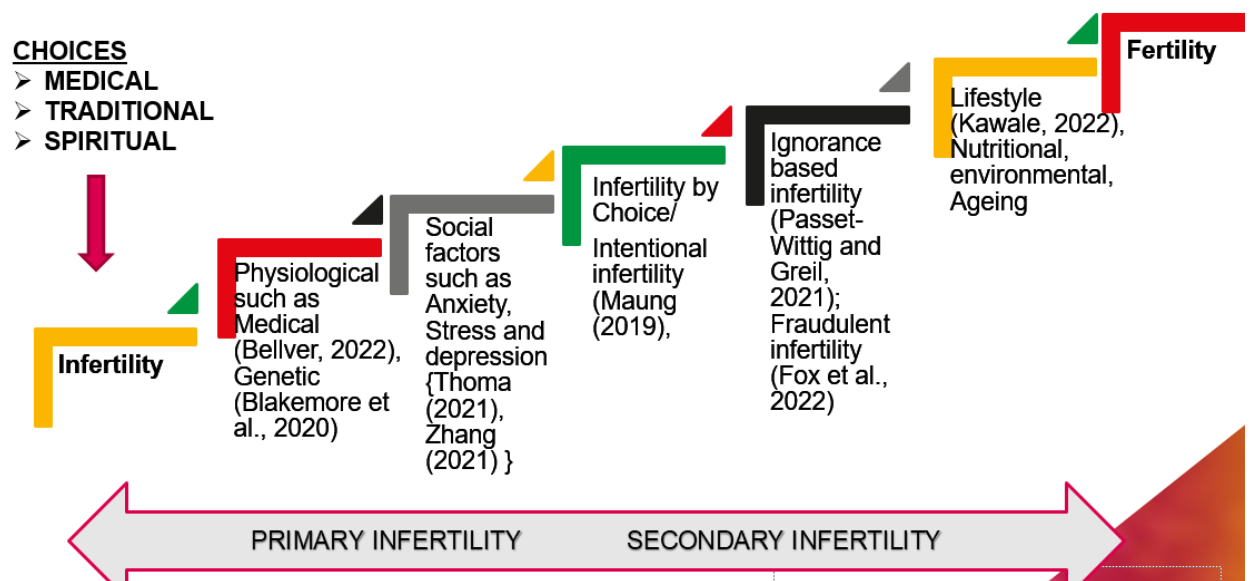
In summary, ART provides potent solutions but necessitates meticulous evaluation of its

psychosocial implications. A comprehensive approach that incorporates medical, financial, and psychological support is vital for sustainable and ethical care.

Figure 4 illustrates *The Path to Fertility: Navigating Systemic Barriers and Root Causes*. This figure depicts the primary etiological factors linked to infertility and delineates the intricate challenges that individuals and systems must confront to achieve fertility outcomes.

**Figure 4**

*The Path to Fertility: Choices, Aetiology and Structural Obstacles.* Source: Author's original diagram



### ***Psychological Reactions and Social Interactions after an Infertility***

#### ***Diagnosis***

Examining previous studies offers an essential understanding of the psychological and emotional reactions individuals display following a diagnosis of low reproductive potential

(Schmidt, 2009). Men are more likely to engage in cognitive appraisal strategies, often focusing on identity conflicts and coping mechanisms, while women are generally more inclined to experience affective reactions, such as sadness or distress (Van Dis et al., 2020; Hohmann-Marriott, 2018). The observed gender-based differences underscore the necessity for customized psychological counselling and outreach upon a patient's diagnosis of infertility or a chronic reproductive condition (Grill, 2023).

The structure of a family plays a crucial role in influencing emotional reactions to infertility. Greil & McQuillan (2011) assert that the quality and nature of family relationships significantly influence how individuals, particularly women and same-sex female couples, manage infertility. In comparison to individuals who experience infertility in isolation, those who are in loving and supportive family networks report superior mental health outcomes (Loftus, 2009; Wischmann, 2008).

Partners may experience emotional distance, guilt, and blame as a result of interpersonal stressors, such as unmet expectations or unsuccessful treatment attempts. Social judgements and stigmatization frequently exacerbate these scenarios, especially when couples consider non-traditional reproductive methods like stem cell reproduction or egg donation (Du & Taylor, 2010; Thaldar, 2020). The resultant sexual withdrawal, emotional tension, and shame may contribute to depressive symptoms and impair an individual's capacity to process even fundamental support or information (Fleming & Burry, 1988).

In high-stress environments, disputes regarding treatment or childlessness may intensify into conflict and cultivate distrust. Those who are already susceptible to mental health conditions

may find the circumstances to be especially detrimental. It is essential to address infertility with empathy and language that fosters connection rather than division. According to Becker (1997), strengthening family relationships, trust and compassion are indispensable in the process of overcoming psychological obstacles and cultivating comprehension.

A person's interpretation and response to the infertility experiences of others are also significantly influenced by their beliefs, faith, and empathy. Sherrod (2004) observes that the elimination of deeply ingrained negative emotions or mindsets necessitates deliberate effort and awareness; social apathy or ignorance can impede emotional healing and prevent meaningful engagement. This shifting, which reinforces gender disparities and restricts personal development, results in ostracism and deepens societal exclusion for certain women, particularly those from lower socioeconomic backgrounds.

Nevertheless, research has demonstrated that engaging with other infertile couples can enhance one's emotional outlook and cultivate a more robust sense of community. Husain & Imran (2021) underscore the significance of structured community integration programs in reducing stigma, fostering mutual understanding, and establishing spaces where affected couples can find solidarity and support.

### ***The Impacts of Traditional, Herbal, and Spiritual Influences on Infertility Treatments.***

For many people, modern medicine is not their first or only choice. Traditional healing systems, such as herbal remedies, prayer, and ritual, play an important role in fertility care, especially in low-income countries such as Nigeria.

Infertile couples in Sub-Saharan Africa and Latin America frequently seek help from traditional birth attendants, herbalists, and spiritual leaders (Jansen et al., (2021). Herbal treatments such as *Tribulus terrestris*, *Mucuna pruriens*, and *Vitex agnus-castus* are widely used to improve fertility, though scientific evidence is mixed (Adetunji, 1996; Lansl et al., 2018; Nwosu et al., 2022).

Pilgrimage, fasting, and prayer are all common spiritual practices. In Islamic cultures, *duo* (supplication) and Quranic healing are believed to restore fertility. Faith healing and church-based counselling are in high demand in Christian communities. These practices offer not only hope, but also a sense of agency and purpose in the face of medical uncertainty.

While some see traditional and spiritual approaches as complementary, others see them as substitutes for medical care. This can cause delays in diagnosis and treatment, especially when couples rely solely on untested methods. However, outright rejecting these practices risks alienating patients and undermining trust.

A more effective approach is therapeutic pluralism, which acknowledges the existence of multiple systems of knowledge and their potential for integration (Bornstein, 2020). Clinicians should engage in open dialogue with patients about their beliefs, avoiding judgement and providing accurate information. For example, discussing potential herb-drug interactions or the importance of timely diagnosis can help bridge cultures.

Furthermore, spiritual beliefs can provide a sense of resilience. Prayer, meditation, and religious community provide emotional support and coping mechanisms to supplement clinical care (Thorn, 2009). When followed properly, these practices can improve treatment adherence and psychological well-being.

To summarize, traditional and spiritual approaches are not relics of the past, but rather active, dynamic components of global fertility care. Acknowledging their role is necessary for culturally competent, patient-centered practice.

### **Experiences of Infertile Couples**

Infertility is a problem that affects many couples all over the world. It can be an emotionally and physically demanding process for people who struggle to accept their inability to conceive naturally (Pines, 1990; Alesi, 2005; Köse et al., 2020). This theme presents a literature review of existing research on the experiences of infertile couples to better understand the experiences of infertile couples.

Infertility can have a significant impact on both couples because it can induce feelings of sadness, sorrow, and loss (Watkins & Baldo, 2004; Sherrod, 2004). At the same time, there can be bitterness and resentment, especially if one partner blames the other for their infertility (Cardin, 1999). Because of the societal shame and loneliness associated with infertility, many couples opt to conceal their troubles, which can make them feel worse.

Infertility has a substantial impact on both partners in a relationship, according to a study by Köse et al (2020), leading to emotions of guilt and humiliation in some circumstances. For the male partner, this guilt often derives from feelings of inadequacy and failure, as they perceive themselves to be responsible for the lack of a biological child. On the other hand, women may experience feelings of guilt due to their inability to provide a child for their partner, or they may feel ashamed that they are not able to live up to the traditional ideals of motherhood. Köse et al (2020), also highlighted that while coping with infertility challenges, men frequently feel less able to communicate their emotions than women do, which might cause them to retreat from their partner during this tough time (Köse et al., 2020).

In addition, this lack of communication may result in further feelings of shame, as men may feel uncomfortable speaking about their emotions due to cultural stereotypes that perceive them as strong and independent. Men may also experience guilt as a result of the feeling that they are not able to adequately provide for their partner, while women may feel ashamed and inadequate due to not being able to fulfil societal expectations of motherhood. All of these emotions can have a significant negative impact on the psychological well-being of both men and women, leading to feelings of guilt, shame, and inadequacy (Sohbati et al., 2021). This negative feeling can have a significant impact on their relationship.

Also, Zhang et al. (2021) found that infertile couples often have to deal with moderate to high levels of social stigma because of their challenges. This stigma can take the form of negative reactions from friends, family, and even strangers, leaving the couple feeling misunderstood and alone. This can involve being judged or shunned by family or friends who are uninformed of the couple's fertility troubles. Such stigma is often perpetuated by a lack of understanding and empathy from family members, friends, and medical professionals. Furthermore, these unfavourable attitudes towards infertility may add to the mental suffering of people who are currently dealing with the inability to conceive naturally. This stigma can have further negative effects on the couple's mental health as well as lead to feelings of isolation (Ergin et al., 2018) and a lack of acceptance from their community.

As such, it is important to create an environment that is open and understanding when it comes to fertility problems. To tackle this stigma, it is important to encourage individuals and couples affected by infertility to openly share their experiences and emotions without any fear of judgment or ridicule. In addition, medical professionals should be educated about the signs of infertility and how to provide support for their patients.

Furthermore, society as a whole should work to create a supportive environment for individuals and couples affected by infertility. By increasing awareness and education about infertility, individuals and couples who are struggling can be reassured that they are not alone. It is also important to create a safe and supportive space to ensure that couples dealing with infertility can receive the help and guidance they need.

This can be accomplished by increasing public education on the signs and symptoms of infertility as well as providing resources to couples seeking fertility treatments. It could

also be accomplished by creating programs that are tailored to address the unique needs of those affected by infertility. This could include providing more resources for medical professionals to learn about the latest developments in fertility treatment.

Additionally, it is important to provide resources for couples who are considering options such as adoption or surrogacy. Public health initiatives should be established to raise awareness of infertility and its causes, as well as to provide support for those affected by it (Brugha, 2009; Wolfenden et al., 2019). In addition, creating a safe and supportive space requires breaking down the stigma of infertility.

Lastly, infertile couples who want help getting pregnant can use several methods, such as assisted reproductive technology (ART). ART includes methods like in vitro fertilization (IVF) and intrauterine insemination (IUI), which use sperm and eggs from the couple to make embryos, which are then put in the uterus. With the help of ART, infertile couples can now have children, which they never thought possible.

Yet, according to Jones et al (2018), these treatments can be costly and time-consuming, adding stress to an already stressful situation for some individuals and couples trying desperately for motherhood through ARTs. While the medical advances associated with ARTs have been successful in allowing couples to conceive, these treatments are not without their drawbacks. Not only are ARTs expensive and time-consuming, but their success rate is lower than that of traditional forms of conception.

Furthermore, Jones et al. (2018) reported that ARTs can be emotionally taxing for couples who are already in a vulnerable position due to the lack of control they have over the outcome. Additionally, there are risks associated with ARTs, such as the risk of multiple births

or transferring genetic material from one partner to another. In addition, there is a great deal of ethical debate surrounding the use of ARTs, particularly as they relate to genetic screening. Ultimately, couples need to be aware of the risks and drawbacks associated with ARTs before embarking on such treatments. Despite these drawbacks, many couples still choose to pursue ARTs as their only option for motherhood. While the potential risks and ethical debates associated with ARTs can be daunting, they do not outweigh the rewards for many couples.

Overall, the present evidence shows that infertility has far-reaching consequences that go beyond physical health; it also affects emotional well-being. So, couples should be aware of the risks and ethical questions that come with ARTs, but they should also remember that for many couples, these treatments may be their only chance of having a child. Couples with fertility challenges should seek help from family members or specialists as needed so that they do not have to suffer alone during this tough time in their lives (Jones et al., 2018). Assisted reproductive technologies (ARTs) can offer hope and assistance to couples with infertility.

### **Isolation and Loneliness in Infertile Couples, using Lessons from the Covid-19 Global Lockdown**

The Covid-19 pandemic has devastated countless lives on a global scale, alienating and socially isolating many individuals (Verma & Prakash, 2020; Pietromonaco & Overall, 2021). This has had a tremendous influence on the mental health of people across the globe (Talevi et al., 2020), as they attempt to cope with feelings of loneliness and social distancing from their loved ones. But, this is what the vast majority of infertile couples have endured for years: isolation and loneliness (Jirka et al., 1996).

It is critical to note that this sense of loneliness is not new; it has been felt by couples for ages as a result of societal norms. In some areas, these values were enshrined in laws or local conventions that excluded infertile couples from various societal rights. There are still civilizations in which such prohibitions persist and can cause a great deal of pain for individuals affected.

The global lockdown, on the other hand, has a silver lining in that it allows fertile couples to imagine themselves in the shoes of infertile couples (Harrison, 2012) in terms of isolation and loneliness. This understanding may result in more compassion for their fellow humans enduring similar hardships, as well as the much-needed aid for those struggling with infertility during this trying time.

However, what distinguishes the Covid-19 situation is that everyone suffered comparable levels of isolation and loneliness as a result of the lockdown measures implemented by governments worldwide (Verma & Prakash, 2020). This means that even those who have never experienced loneliness have struggled with its mental health implications.

Jirka et al. (1996), indicated that prolonged periods of isolation can result in depression, anxiety, and other psychological concerns, such as low self-esteem and concentration difficulties. Loneliness can also impair physical health; according to a study, chronically lonely people are more likely to suffer from heart disease or stroke than those who do not feel alienated or disconnected from others.

Individuals must realize that the emotions experienced during Covid-19-related lockdowns are the same emotions couples have endured for years without receiving adequate

care. So, it is vital to reach out to infertile friends and family members frequently. Everyone must remember how interrelated we all are, regardless of how physically far we may be; therefore, it is essential that families look out for each other through difficult times.

### **Infertility Stigmas and Cultural Beliefs**

Infertility is a challenging reality that is frequently accompanied by cultural stigmas (Ergin et al., 2018). In numerous countries and societies, several infertile couples have been stigmatized (Kaya & Oskay, 2020). For generations, infertility was considered a sign of disgrace or a curse, and childlessness was considered forbidden. This stigma spreads misconceptions and myths about infertility, such as the assumption that barrenness is caused by spiritual forces beyond human control (such as bad spirits) rather than physiological concerns (Olugbenga & Agbede Catherine, 2020). Despite advances in views towards fertility treatments, these cultural ideas persist in diverse demographics and socioeconomic classes across the globe due to misunderstanding about medical science developments and a lack of access to or comfort with discussing one's reproductive health.

Fortunately, there have been new initiatives to educate people on how to better understand their bodies so they can dispel myths linked with infertility, ultimately improving awareness for those seeking ways to start families regardless of socioeconomic status or gender identity. While many cultures view fertility and children as indicators of success or optimal health, individuals who endure infertility issues may experience feelings of inadequacy as a result. In some cultures, couples with infertility who are unable to conceive naturally may feel ashamed, even if the explanation has nothing to do with physical restrictions (Cousineau & Domar, 2007). The dread of bringing humiliation to one's family and receiving criticism from friends and family can be overpowering for those who are unable

to conceive, causing them to hide their troubles out of embarrassment or avoid discussing them.

Many societies also have different expectations regarding roles based on gender identity, which may add additional layers of misunderstanding and confusion to the couple's reproduction dynamics, as men are traditionally viewed as more successful "providers" while women are solely responsible for caregiving activities after childbirth (Eagly & Carli, 2011). Creating safe spaces where fertility issues can be discussed openly (Kiełek-Rataj et al., 2020) and without stigma is essential if individuals facing these challenges are to realize they are not alone, normalize informally what would otherwise appear to be private topics, and obtain accurate information about reproductive methods and or substitutes available as assistance or medical intervention. Before making informed decisions under specific conditions, it is essential to comprehend the ramifications of each step. The decision must be appropriate and congruent with the personal preferences of prospective couples.

According to Kaya and Oskay (2020), the stigma and cultural beliefs surrounding infertility can cause many couples substantial stress and apprehension. In some cultures, infertility is viewed as a source of shame or even a curse (MacLennan, 2021). It is essential to understand that infertility is not the fault of both partners, and having realistic expectations about reproductive treatments can help reduce the mental problems associated with infertility (Holka-Pokorska, Jarema, & Wichniak, 2015). To battle these stigmas, it is essential to seek advice from family members, trusted friends, religious leaders, and healthcare specialists. In addition, the celebration of alternative child-rearing options such as adoption reduces future anxiety around reproductive concerns.

## **The Mental Health, Taboos, and Interpersonal Conflicts Related to Infertility**

Infertility is frequently associated with a slew of taboos and societal conflict (Khetarpal & Singh, 2012). These taboos can have a significant impact on the psychosocial well-being of those experiencing infertility.

According to Cui (2010), there is still a stigma attached to infertility in many cultures. Couples who are unable to conceive naturally may feel ashamed or embarrassed, and this shame can lead to feelings of isolation and depression. When family members or friends make insensitive comments or offer unsolicited advice on how to "fix" the problem, this sense of isolation can be exacerbated. According to Khetarpal & Singh (2012), such remarks and incorrect categorization are not only hurtful but also serve as a reminder that society does not fully accept individuals who struggle with infertility.

Dierickx et al. (2018), revealed that the pressure from society for infertile couples to conform to traditional gender roles can also cause conflict between partners in relationships where one partner feels they must take responsibility for the couple's inability to conceive naturally while the other partner remains passive in seeking solutions such as assisted reproductive technology. This unequal burden imposed on one partner breeds resentment, exacerbating any existing relationship problems that, according to Miles et al. (2009), are caused by the stress associated with fertility issues.

Furthermore, some religious beliefs regard infertility as God's punishment for past sins or transgressions, adding another layer of guilt to already emotionally fragile individuals

dealing with fertility issues (Hasanpoor et al., 2014). The belief that God has cursed them because they are unworthy causes many people to become even more depressed about their situation, rather than providing comfort during difficult times.

Infertility taboos and societal conflict have far-reaching effects on both physical and mental health (Thorn, 2009). Those affected by this problem require assistance from family, friends, healthcare professionals, faith leaders, and others so that they do not feel alone in their struggles. With proper understanding and acceptance from all parties involved, we was able to progress towards more inclusive societies where everyone is accepted, regardless of whether they have fertility issues or not.

### **Gender and Sexual Orientation in the "Fertility Care Choices" Decision-Making Process**

Men and women do not experience infertility equally. Social norms, cultural expectations, and medical practices frequently assign the burden of infertility to women, disproportionately impacting them irrespective of the underlying causes.

In many cultures, motherhood is central to female identity, and childlessness is seen as a personal failure (Araoye, 2003; Dyer, 2007). Women are often held responsible for infertility, regardless of whether the cause is male-factor or remains unexplained (Mumtaz et al., 2013). This stigma results in social exclusion, marital strife, and, in severe instances, divorce or polygamy (Ullah et al., 2021).

Men, in contrast, frequently endure unvoiced anguish. Male infertility is perceived as a challenge to masculinity, resulting in denial, concealment, and reluctance to seek treatment (Fainberg & Kashanian, 2019). Upon diagnosis, men may experience feelings of emasculation or inadequacy, especially in cultures that associate virility with fertility (Fedder et al, 2021).

These gendered dynamics affect treatment decisions. Women are more inclined to undergo invasive procedures, endure the physical ramifications of hormonal therapies, and engage in help-seeking behaviour (Cui et al., 2021). Men may resist diagnosis or withdraw from the process, resulting in power imbalances in decision-making.

Moreover, reproductive technologies may perpetuate gender roles. IVF prioritises the female body in the processes of stimulation, retrieval, and implantation, whereas male involvement is frequently limited to the provision of sperm samples. In instances of male-factor infertility, the emphasis continues to be on the woman's body as the locus of treatment.

Healthcare providers must implement gender-sensitive strategies to rectify these disparities. This entails engaging both partners in discussions, normalizing male infertility, and confronting cultural misconceptions regarding reproduction. Counselling must encompass emotional distress, relational dynamics, power imbalances, and collaborative decision-making.

According to Bunting, Tsibulsky, & Boivin (2013), true informed consent requires both partners to understand their roles, risks, and responsibilities. Only then can couples make decisions that are fair, sustainable, and congruent with their values.

## **Family Planning, Population Control, and Policy Consequences**

Infertility cannot exist in a vacuum. It intersects with larger discussions about population control, contraception, and reproductive rights (Bendix & Schultz, 2018; Kandji, 2024; Donner, 2010). Paradoxically, while some countries encourage fertility treatments, others enact policies that may unintentionally contribute to secondary infertility (Sami & Saeed Ali, 2012). Long-acting contraception, unsafe abortions, and limited access to STI treatment have all contributed to tubal damage and decreased fertility in some populations (Grollman, 2018; Addico, Greaney, & Lacayo, 2019; Yabesera, 2020). This raises ethical concerns about reproductive justice and the unintended consequences of public health interventions (Smith, 2005).

Furthermore, global population concerns, particularly the population explosion, have resulted in coercive or incentivized family planning policies in countries such as China and India (Benson & Sonfield, 1999; Van Bavel, 2013; Meade, 1967; Starbird, 2016; Raulet, 1970). These programs, while aimed at sustainability, have occasionally limited access to fertility care or stigmatized childlessness (Ullah, et al., 2021).

To reconcile these tensions, policymakers must take rights-based approaches that respect reproductive autonomy, whether it means preventing or achieving pregnancy (Madeira, 2011). Access to contraception should not be at the expense of future fertility (Cleland, et al., 2006). Similarly, universal health coverage should include infertility treatment, especially in low-resource settings.

According to May (2012), sustainable population policies necessitate careful, evidence-based planning rather than reactive measures motivated by fear of overpopulation.

### Controversies associated with infertility narratives

Infertility narratives are the accounts of individuals and couples who have struggled with infertility (Woollett, 1996; Craig, 2020; Griffiths, 2021). These stories frequently highlight the emotional, physical, and financial difficulties associated with infertility. While these narratives have the potential to be powerful tools for raising awareness about infertility issues, they are not without controversy.

One important source of conflict in infertility narratives is the taboo nature of addressing fertility concerns in many cultures. In some countries, such as India and China, discussing fertility issues openly is considered shameful or embarrassing (Rowland, 2020). The stigma surrounding infertility may hinder individuals from seeking assistance or support within their communities. Furthermore, those experiencing fertility issues may feel isolated as a result of this stigma, further complicating their situation.

Another contentious aspect of infertility narratives is the belief that certain treatments should be avoided because of religious or cultural beliefs. For example, in some Muslim countries, the use of ARTs such as IVF is restricted due to religious beliefs about conception outside of marriage or gender selection practices associated with ARTs use (Khan & Konje, 2019). Surrogacy arrangements may be prohibited in other parts of the world due to legal and cultural values surrounding family structure and parenting roles (Shchyrka et al., 2020).

Finally, another issue concerning infertility narratives is the availability of treatment options in developed countries versus developing countries. Many people in developing countries lack access to the advanced medical care required for successful treatment outcomes (O'Donnell, 2007; Jacobson, 2018), making it difficult for them to seek fertility assistance even if they wanted to. This disparity has prompted some critics to argue that wealthy individuals from developed countries are taking advantage of the situation by seeking out cheaper treatments abroad while leaving poorer citizens at home without adequate resources (Nachtigall, 2006; Adamson, 2009; Ombelet, 2011; Hammarberg et al., 2018).

Understanding the various controversies surrounding infertility narratives allows researchers and all the stakeholders to better appreciate how complex this issue truly is. When discussing these issues, it is important to acknowledge every viewpoint to have more inclusive discussions about the fertility issues that people all around the world experience. This allows for the development of solutions that benefit everyone involved, regardless of where they live or what culture they belong to.

### **Treatment Barriers and the Psychological and Social Aspects of Infertility: Relevant Research**

Infertile couples are often hesitant to seek medical assistance due to a variety of psychological, cultural, and social barriers, despite the availability of numerous medical treatments. Malik & Coulson (2010) identified fear and anxiety as major barriers to couples seeking medical care. Similarly, Rich & Domar (2016) found that depression plays a

significant role in reluctance to seek treatment. In addition, Okonufua et al. (1997) identified financial constraints, cultural beliefs, stigma, and limited awareness of available options as significant deterrents. Concerns regarding the efficacy of treatments and suspicions regarding medication side effects are also present.

Gender roles also influence treatment decisions. Studies by Greil et al. (1988) and Sen & Östlin (2007) show that traditional gender expectations often result in unequal decision-making, with men typically having more influence. Women, in particular, may face additional pressure from family or community expectations, which can exacerbate emotional distress and limit access to reproductive healthcare.

Infertility continues to affect millions around the world, with many individuals and couples suffering emotionally in silence (Cui, 2010; Cui et al., 2021). Depression, anxiety, guilt, shame, loneliness, and low self-esteem are among the psychological issues associated with the condition. Despite the availability of professional support, many infertile people do not seek it, exacerbating their emotional distress.

Social stigma often exacerbates these psychological effects. Couples frequently face criticism or isolation within their communities (Konstantinidis & Kontosimou, 2018), which causes increased emotional distress (Brothers & Maddux, 2003). Infertility can also cause chronic sadness and low self-esteem (Cui, Wang & Wang, 2021), and some people may feel isolated from their peers who have children.

Infertile couples frequently experience relationship issues. According to research, infertile

couples experience higher levels of marital distress (Liu et al., 2019), as well as increased anxiety and social withdrawal (Amber et al., 2017). Conflicts over treatment options or financial constraints can exacerbate relationships (Ashirbayeva, Smagambet, & Tlespayeva, 2025). Given the emotional complexities, support systems are critical for building resilience and solidarity.

Infertility also necessitates a complex decision-making process, as couples must weigh the financial, physical, and emotional costs of treatment. Support networks can provide reassurance and alleviate the psychological burden. Importantly, Rudick et al. (2015) discovered that men may struggle to navigate infertility due to social expectations and feelings of inadequacy. These findings highlight the need for gender-sensitive psychological care.

Pawar et al. (2019) emphasized the negative impact of infertility on both mental health and social functioning. According to Rudick (2015), men may experience increased guilt and shame as a result of societal expectations of masculinity and fatherhood. As a result, healthcare providers must recognize gendered experiences and provide appropriate support.

A thorough understanding of the psychological and social aspects of infertility is essential for providing compassionate and effective treatment. Addressing stigma, encouraging open dialogue, and increasing access to mental health resources will help to provide more comprehensive and compassionate infertility care.

### **Psychosocial implications of infertility**

This sub-theme presents a review of recent studies on the psychosocial impact of infertility as it relates to individual, relational, and societal effects of infertility.

The psychological and social repercussions of infertility on individuals, couples, and families are referred to as the psychosocial implications of infertility (Sheriff, 2019; Hocaoglu, 2019). Additionally, in-depth analysis concentrates on gender disparities in the willingness to accept assistance and encouragement after diagnosis, as well as depressive symptoms associated with infertility. The investigation also examines the roles of both family structures and selected coping mechanisms in managing one's emotions over time when confronted with a perpetual state of unexplained fertility concerns. Moreover, examining differences between various cultural norms helps to further explain any underlying factors guiding individuals afflicted towards anguish or hope during their treatment options journey.

This review also covers the many effects of infertility on emotional well-being, mental health, sexuality and relationships, marital satisfaction, and family dynamics.

### **Effects of Infertility on Individuals, Couples, Family and the Community**

Infertility affects many people, couples, families, and communities all over the world. It can have far-reaching effects in various ways on each of these groups (Oseni, 2024). The effects of infertility on the individual, the couple, the family, and the community were examined and described in this sub-theme.

### ***The Impact of Infertility on a Person***

Emotionally, coping with infertility can be extremely challenging for a person (Fido & Zahid, 2004). Some individuals' inability to conceive or carry a pregnancy to term can induce feelings of sadness, guilt, and even depression (Alesi, 2005). In addition, fertility treatments such as IVF or other assisted reproductive technologies may cause financial strain. Those already experiencing emotional distress due to their diagnosis of infertility may experience additional stress as a result.

The biggest detrimental consequence on an individual was the effects on quality of life, as investigated by Barnawi et al., (2020), who discovered that being older in age and being married for more than five years without children adversely impacted fertility quality of life ratings. They also discovered that those with secondary infertility had a higher score.

### ***The effects of Infertility on a Couple***

When two partners are unable to conceive naturally, it can put a significant strain on their relationship as they struggle through this trying time together (Ashirbayeva, Smagambet, & Tlespayeva, 2025). If either partner feels that they are being blamed for their inability to conceive naturally, they may develop feelings of anger or resentment towards the other. Therefore, they must communicate during this time so that they can remain supportive of each other throughout their journey to parenthood (Kiełek-Rataj et al., 2020), using alternative methods if necessary.

### ***The Impact of Infertility on Families***

When a member of a family struggles with infertility, it affects the entire family unit, particularly when alternative methods such as surrogacy or adoption are attempted, where more than two people are involved in raising any children born from these processes (Cousineau & Domar, 2007). For instance, extended family members may feel excluded because they have little say in how any adopted children should be raised. Additionally, siblings born before any new additions may resent that they are receiving less attention now that there is another child. All of these considerations must be taken into account when discussing available fertility treatments and alternatives with infertile families.

### ***The Effects of Infertility on a Community***

Individuals, couples, and families are not the only ones affected by infertility; society as a whole also feels its effects (Bornstein et al., 2020). For instance, certain cultures place a high value on having children, therefore, when someone is unable to do so for medical reasons, social stigma may ensue, making life more difficult for those suffering from infertility in that community. Additionally, economic factors come into play, as fewer births mean fewer taxpayers contributing money back into public services provided by governments across the globe, an issue that must be addressed immediately for societies to function properly in the future.

While infertility presents challenges at every level, whether an individual is struggling alone or part of a larger group such as a couple/family/community – understanding the types of obstacles encountered along the way helps the patients to prepare mentally and financially

for the journey ahead. With available support networks and resources, however, it is hoped that anyone struggling with fertility issues will find comfort in knowing they are not alone.

### ***Effects of Infertility on Emotional Health***

Infertility diagnosis is often accompanied by feelings of sadness, guilt, anger, and frustration, which can be emotionally and physically draining for those involved (Alesi, 2005; Köse, 2020).

According to Gdańska (2017), Lukse & Vacc (1999), and Yang et al., (2022), depression and anxiety are the first effects of infertility on emotional health. Infertile couples may feel overwhelmed by their inability to conceive naturally or with the aid of ART. As they struggle with feelings of failure and inadequacy, this sentiment can lead to depression. In addition, some couples may experience anxiety as a result of uncertainty regarding their future fertility prospects or the fear that they will never have children.

Infertile couples frequently experience grief (Lukse & Vacc, 1999) over their inability to have biological children together. This grief can manifest in a variety of ways, including sadness over missed milestones such as pregnancy announcements from friends and family, envy towards other parents who do have biologically related children, and even resentment towards partners for not being able to provide them with a biological child despite desperately wanting one themselves (Ashirbayeva et al., 2025).

In addition to these more negative emotions associated with infertility, there are also positive emotions, such as hope and resiliency, that help infertile couples cope better with difficult situations (Ombelet, 2020). Hope is the belief that something positive will eventually

result from a situation, while resilience is the ability to remain strong in the face of adversity caused by their condition, such as financial strain due to expensive treatments or social stigma surrounding ARTs, such as surrogacy and adoption.

If stress causes a breakdown in communication between partners, infertility can wreak havoc on relationships. Arguments may ensue if one partner feels unsupported by the other, causing both parties to feel alone, resentful, and misunderstood (Schmidt et al., 2005). Therefore, both partners in an infertile couple need to seek professional counselling to resolve any issues before they become severe.

On the whole, infertility has extensive effects on emotional health, including depression, grief, hope, resilience, and relationship issues, among others. To be able to focus on finding solutions rather than dwelling on what cannot be changed, it is crucial for anyone facing this issue to understand how to effectively manage these emotions so they do not become overwhelming. With the proper support from family, friends, and professionals, the majority of people should be able to find inner peace regardless of whether or not they ever become parents (Abbey, Andrews, & Halman, 1995; Wischmann, 2008).

Several studies have found detrimental effects on emotional well-being in infertile women when compared to fertile counterparts (Dokras, 2005; Cousineau & Domar, 2007), ranging from greater levels of perceived stressors, increased discomfort connected with fertility difficulties leading up to treatment decisions, depressed symptoms reported two weeks before embryo transfer in IVF patients through more traditional measures such as overall health-related quality of life.

Additionally, trouble conceiving has been reported to be more common in people diagnosed with secondary infertility than in those diagnosed with primary infertility, which could be related to confidence concerns stemming from earlier achievements not repeating themselves.

### *The Effects of Infertility on Mental Well-being*

For couples, infertility can be a trying and mentally draining experience. Abebe et al., (2020) estimate that one in eight couples struggle with infertility, making it a global problem that affects a significant number of people.

In addition to the physical effects of infertility, such as difficulty conceiving or carrying a pregnancy to term, this condition also has mental health implications. Infertility can have a significant impact on both partners' mental health. Women may experience feelings of guilt and shame if they are unable to conceive or carry a pregnancy to term. They may feel that they have failed at something that should have come naturally, and they may be concerned about how their partner will perceive them as a result. Men may also experience guilt if they believe they are to blame for their partner's infertility or if they are unable to provide her with the child she so desperately desires. Additionally, men frequently feel helpless when confronted with their partner's anguish over the inability to conceive or carry a child to term; in some cases, this feeling can lead to depression and anxiety (Sheriff, 2019; Zhang et al., 2021).

Couples experiencing infertility frequently struggle with communication issues and feelings of isolation from family members who do not understand what they are going through or who lack empathy for them during this trying time in their lives. Couples may become

estranged from one another as a result of disagreements over treatment options or financial concerns related to fertility treatments, which can further strain relationships that are already strained by the occurrence of infertility (Köse, Smith, & Jones , 2020). Moreover, couples with fertility issues tend to focus more on negative than positive aspects, resulting in cycles of despair that exacerbate pre-existing mental health issues such as depression and anxiety.

Those affected by infertility must seek assistance from professionals such as counsellors, therapists, support groups, etc., to learn coping strategies that will allow them to better manage the emotions associated with this condition. In addition, seeking out resources within communities where individuals with similar struggles share their experiences contributes to the creation of an environment in which individuals do not feel alone while navigating difficult times. Taking care of oneself physically, such as through exercise and healthy eating habits, as well as engaging in mentally stimulating activities (such as reading books or articles) is beneficial when coping with any type of psychological distress, including that caused by infertility difficulties.

Couples experiencing infertility should be able to equip themselves with the necessary coping skills and maintain a strong relationship despite the challenges they will face on their journey if they receive the proper guidance and engage in the self-care practices mentioned above.

Individuals with infertility are increasingly turning to mental health specialists for psychosocial support. Because managing one's anxiety can be difficult if left solely up to individual strengths or supportive family members and friends, mental health professionals (Fisher & Hammarberg, 2020) who specialize in fertility counselling services offer psychiatry

consultations; marital therapy sessions; specialized hypnosis, treatments utilizing professional techniques tailored around preparatory activities infused into daily life routines; narrative descriptive

Newer cognitive restructuring techniques have also shown promise as a modality of treatment (Ishaka, 2021), assisting couples in developing a sense of social supportiveness while affording them time away from sources of stress related to reproductive issues

According to Mueller (2017), offering emotional support through collaborative partnerships created by patients seeking care alongside primary care doctors has had a significant favourable impact on the outcomes of successful pregnancies when attempting assisted reproductive technologies

Yet, additional qualifications are required when considering this type of vocation that includes adoption, regardless of whether surrogacy routes are actively used. Without relying too much on technical jargon, explanations on how to use selected approaches rely heavily on proper assessments that are also shared amongst all individuals engaged are required. Eugenics protocols may alter the hazards or benefits of numerous regimens (Erden and Brey, 2022), allowing patients to customize judgments before making final decisions.

### ***The Effects of Social Support Networks on Infertility***

Having access to social support networks that can provide emotional, physical, and financial assistance is essential for infertile couples (Swanson & Braverman, 2021). There are a variety of social support networks available to infertile couples, including online forums and in-person groups.

Online forums are a great way for infertile couples to connect with others who understand their difficulties (O'Connell et al., 2021; Grunberg et al., 2021). People can freely share their stories and experiences in these forums without fear of judgment or criticism. In addition to providing information about fertility treatments, coping strategies, and links to other helpful websites, several online infertility communities offer additional resources, such as advice on coping techniques and links to other helpful websites (Halkola et al., 2022).

Individuals struggling with infertility issues also have the option of attending in-person support groups (Iordachescu, 2021). Typically, these groups meet regularly at local hospitals or clinics and provide members with a safe space to discuss their emotions. According to Malekpour et al., 2023) members may also receive guidance from medical professionals specializing in fertility issues or participate in activities specifically designed for infertile couples, such as yoga classes or art therapy sessions.

There are specific financial assistance programs for those dealing with infertility issues (Hasanpoor-Azghady et al, 2019). These programs frequently cover the expense of IVF (in vitro fertilization) and IUI (intrauterine insemination) (intrauterine insemination). Infertility-related counselling services and adoption fees may also be covered.

Social media platforms such as Facebook and Twitter also provide additional opportunities for infertile couples to connect and find global support (Lin & Shorey, 2023). Through these platforms, users can join private discussion groups devoted exclusively to discussing infertility-related topics while maintaining their anonymity if they so choose (s). Moreover, some organizations use social media platforms to raise awareness about infertility

issues through campaigns, which encourage individuals affected by infertility issues to share their stories publicly on various channels.

Regardless of the type of social support network a couple chooses, it is essential that they feel at ease sharing their story without fear of judgment or criticism to receive the assistance they require during this challenging time in their life journey as infertile couples. There is no reason for a couple to go through this alone in the modern era, given all the available options.

During the process of dealing with and resolving relationship problems, there is evidence that addressing the sentiments that lay behind the articulated emotions has contributed to the development of stronger relationships between individuals. Via mutually understood feedback loops, interactions were constructed in tandem, making validation possible at regular intervals (Kiełek-Rataj, 2020).

### **Parenting Alternatives: When Choices Fail**

In the absence of biological parenthood, surrogacy and adoption present alternative avenues. Both are emotionally intricate and ethically significant, necessitating meticulous deliberation.

In gestational surrogacy, a third party carries a genetically related embryo (from the intended parents or donors). Although it facilitates biological connection, it presents legal, financial, and emotional complexities. Contracts must delineate rights, obligations, and remuneration (Shchyraska et al., 2020). Emotional connections between the surrogate and the child, although generally regulated, can induce strain. In certain nations, commercial surrogacy is prohibited,

compelling couples to pursue services internationally, a practice laden with ethical dilemmas regarding exploitation and inequality (Nakash & Herdman, 2007; Michaels, 2022).

Adoption, despite providing a lasting familial resolution, is frequently stigmatized or unattainable. Legal obstacles, protracted procedures, and substantial expenses deter numerous individuals from pursuing it (Feasey, 2019; Mostowik et al., 2019). In cultures that value biological continuity, adoptive parenting may be regarded as "inferior," contributing to emotional distress.

Both options require psychological grieving and emotional healing, specifically giving up the desire to become a biological parent. Counselling is crucial for assisting couples in managing this transition. Support groups and peer networks can offer validation and diminish feelings of isolation (Kiełek-Rataj et al., 2020).

Ultimately, both surrogacy and adoption signify a broader transformation in the conception of parenthood than as a biological necessity, but as a social and emotional obligation. When ethically and compassionately supported, they can satisfy the profound human yearning for family.

## **Conclusion**

Infertility is a multi-layered condition interlinking biological, social, cultural, and emotional dimensions, often magnified in contexts where parenthood is central to personal and societal identity. Research in Ibadan, Nigeria, indicates that access to fertility care is hindered by insufficient facilities, elevated costs, and an uneven distribution of specialized services,

leading many couples to depend on informal or traditional remedies before pursuing biomedical intervention. Research conducted by Okonofua et al. (2003) and Esan et al. (2022) indicates that women experience delays in diagnosis and treatment attributed to gendered expectations and financial dependence, resulting in a diminished quality of life. Conversely, men frequently refrain from seeking clinical evaluation due to the stigma associated with male-factor infertility. These obstacles not only impede the efficacy of care but also prolong marital strain and emotional distress. Infertility in Ibadan is frequently perceived as a personal failure or divine punishment, which has profound psychosocial ramifications. This perception results in social ostracisation, marital discord, and increased risks of depression and anxiety, particularly among women. Qualitative studies by Nieuwenhuis et al. (2009), Okonofua et al. (2003), and Oseni (2024) illustrate that infertile women frequently experience ridicule and polygamous arrangements initiated by husbands in search of heirs. The cultural burden intensifies psychological distress and may dissuade couples from seeking available medical interventions, resulting in a cycle where stigma obstructs care and insufficient care reinforces stigma.

This review shows that psychoanalytic theory can illuminate the deep-seated psychic trauma associated with infertility, particularly in socioculturally charged contexts like Ibadan, Nigeria, but existing literature lacks empirical data on localized psychosocial outcomes and treatment experiences. Psychoanalytic constructs like loss, depression, and isolation illuminate culturally specific expressions of grief, shame, and identity disruption, but there is little research linking them to resilience or coping strategies during fertility treatment. Gendered societal constraints, religious beliefs, and access to care in sub-Saharan Africa are understudied in relation to psychological susceptibility or adaptive capacity.

Thus, this study fills a critical gap by empirically examining how psychoanalytically informed vulnerabilities manifest in Ibadan's unique sociocultural fabric and how they correlate with treatment engagement, emotional resilience, and psychosocial support, informing more culturally attuned, psychologically integrated fertility care models.

### **CHAPTER 3: RESEARCH METHOD**

The study employs a qualitative (exploratory) research methodology, utilizing a semi-structured interview format that incorporates open-ended questions. The primary research in this study utilizes interviews as the principal tool, which are conducted either in person or over the telephone. The interviews are solely recorded in audio format. The questions have an open-ended nature. Using an exploratory qualitative research technique aims to provide a comprehensive understanding of the underlying reasons, perspectives, and motivations that influence the decision-making process of couples experiencing infertility when choosing a reproductive treatment.

#### **Research Approach and Design**

This study employs a qualitative exploratory research design to investigate the intricate and multifaceted nature of fertility treatment decision-making among infertile couples in Ibadan, Nigeria. The primary goal is to investigate the factors that influence treatment decisions, examine the psychosocial consequences of those decisions, identify barriers to making informed decisions, and gain a better understanding of the medical, traditional, and spiritually focused pathways taken by individuals and couples seeking to overcome infertility.

Given the sensitive, culturally embedded, and frequently stigmatized nature of infertility, especially in low-resource settings like Ibadan, an exploratory qualitative approach was chosen to provide in-depth, contextually grounded insights into personal experiences, belief systems, social pressures, and healthcare navigation (Sofaer, 1999). This design is ideal for investigating under-researched phenomena in which little is known about the lived realities of affected individuals, and the goal is to generate rich, descriptive, and interpretive knowledge rather than test hypotheses (Patton, 1980; Creswell, 2014).

The analytical framework for this study is thematic analysis, employed within a qualitative exploratory design. The primary data interpretation method was reflexive thematic analysis (Braun & Clarke, 2006), chosen for its adaptability, transparency, and robustness in identifying, analyzing, and reporting patterns (themes) in a large qualitative dataset. This method allows for both semantic (what is explicitly said) and latent (underlying meanings, assumptions, and ideologies) interpretations of data, making it ideal for addressing the multidimensional objectives of this study. The analytical process adhered to Braun and Clarke's six-phase framework, which involved familiarization with the data through repeated reading of transcripts, creating initial codes to capture key concepts and experiences, looking for themes by grouping related codes, reviewing themes for coherence and alignment with the dataset, defining and naming themes with clear definitions and illustrative examples, and producing the final report with a coherent narrative that reflects the complexities of participants' experiences.

This method enabled the emergence of themes that reflect not only the content of participants' narratives, but also the contextual, emotional, and sociocultural aspects of their decisions. The use of thematic analysis within an exploratory framework ensured that the research was open to unexpected findings and diverse perspectives, particularly those related

to non-medical treatments such as spiritual interventions or traditional healing, which are frequently overlooked in mainstream reproductive health discourse.

Data were gathered through semi-structured, in-depth interviews with open-ended questions designed to elicit detailed narratives about participants' infertility journeys, treatment decisions, emotional experiences, and sources of support. The use of open-ended questions allowed participants to express themselves in their own words, thereby increasing data authenticity and depth (Kvale, 1996). Interviews were conducted in-person or over the phone, depending on participant preferences and logistical feasibility. To ensure confidentiality and encourage candid responses, all sessions took place in a private setting. Before each interview, participants provided voluntary informed consent, which included clear explanations of the study's purpose, procedures, risks, benefits, and the right to withdraw at any time.

A total of 50 participants were recruited, comprising 9 men and 41 women, including 40 patient-participants (with a history of infertility) and 10 health-care providers. The research employed maximum variation purposive sampling as outlined in Chapter 1. However, snowballing was used only as a supplementary recruitment tool to access hard-to-reach populations after the initial purposive strata were met.

Based on the literature review and research objectives, three distinct but thematically aligned interview guides were developed. Patient participants answered 14 open-ended questions about infertility, including its onset and duration, initial reactions and emotional responses, paths taken (medical, traditional, spiritual), influences on decision-making (family, cost, religion), and psychosocial impact (stigma, marital strain, hope) as well as reflections on outcomes. Fertility specialists, traditional healers, and clergy answered 12 open-ended

questions about common patient profiles and motivations, observed treatment trends, perceived psychosocial challenges, ethical considerations, and interactions with various treatment systems. All instruments were reviewed for clarity and relevance, ensuring that they were consistent with the study's conceptual framework.

All interviews were audio-recorded with permission, transcribed verbatim, and anonymized to protect participant confidentiality. Transcripts were analyzed using Atlas.ti software (See Appendix C) to aid in systematic coding and theme development (Hwang, 2008; Smit, 2002). Thematic analysis was conducted iteratively, with coding initiated during data collection (Kiger & Varpio, 2020; Terry, 2016). This allowed emerging themes to inform subsequent interviews, thereby increasing data saturation until no new themes emerged (Hennink & Kaiser, 2022). The 35th patient interview marked saturation, but data collection continued to 40 patients (purposeful post-saturation sampling) to ensure representational depth and capture a broader range of experiences across treatment types and socioeconomic statuses.

Strategies were employed to ensure credibility, transferability, dependability, and confirmability, the four criteria for trustworthiness in qualitative research (Lincoln & Guba, 1985). These included prolonged engagement with participants and settings, member checking in which preliminary findings were shared with selected participants for validation (Candela, 2019), peer debriefing with academic colleagues to review interpretations, and thick, contextual descriptions to improve transferability. The Unicaf Ethics Committee provided ethical approval. All procedures adhered to the ethical principles of autonomy, beneficence, non-maleficence, and justice (Kupolati, 2022). Participants were assured of confidentiality, and all personally identifiable information was removed from transcripts and reports (Bourke & Wessely, 2008).

**Rationale for sample size and design.**

The exploratory nature of the study supported a sample size of 50 participants. While not statistically generalizable, this figure is consistent with qualitative research standards that value depth, diversity, and richness of insight over numerical representativeness (Guest, Bunce & Johnson, 2006). The inclusion of both patient and provider perspectives across medical, spiritual, and traditional domains ensures a multi-stakeholder understanding of infertility care, which improves the study's comprehensiveness and policy implications.

A sampling strategy that includes individuals with a documented history of infertility who have since conceived provides a distinct advantage in investigating the psychosocial impact of infertility because it allows for a retrospective, reflective assessment of the entire emotional and social trajectory of the infertility experience, which is often unavailable in individuals currently undergoing infertility. People who have conceived after infertility are more likely to provide nuanced insights into the long-term psychological toll, coping mechanisms, relational dynamics, and existential challenges they encountered during their struggle because they are no longer in the acute phase of distress, when emotions may be overwhelming or defences heightened. This temporal distance promotes greater self-awareness and narrative coherence, resulting in richer, more comprehensive data on how stigma, treatment choices, spiritual beliefs, and social pressures influenced their journey (Golombok, 2017; Thorn, 2009). Furthermore, their ability to reflect on both the struggle and resolution, whether through medical, traditional, or spiritual means, provides critical insight into resilience, meaning-making, and post-traumatic growth, thus offering a more complete understanding of

the psychosocial dimensions of infertility, which can inform patient-centred care and support interventions.

The study's gender distribution, comprising 50 participants in total, with 41 females and 9 males, and 39 females and one male among the 40 previously infertile individuals, reflects both the sociocultural context of infertility in Nigeria and the realities of healthcare-seeking behaviour in the study setting. While the imbalance may appear to be significant at first glance, it is not only justifiable but also consistent with larger patterns observed in reproductive health research and clinical practice in Sub-Saharan Africa (Gullo et al., 2021).

First, the overwhelming female representation among infertile participants is consistent with the deeply entrenched social construction of infertility as a woman's issue, even though male factor infertility accounts for approximately 30-50 percent of cases worldwide (World Health Organization [WHO], 2021). Many Nigerian communities, including Ibadan, attribute childlessness primarily to women, resulting in disproportionate stigma, blame, and social exclusion directed at wives rather than husbands (Dyer, 2007; Adetoro & Ebomoyi, 1991). As a result, women are far more likely to initiate and follow through on fertility care, often due to familial or societal pressure, whereas men may remain disengaged or participate only peripherally.

Second, the discovery that only one male partner accompanied his wife to the clinic for antenatal care is consistent with previously documented gender dynamics in healthcare utilization in Nigeria. Men are generally under-represented in reproductive and maternal health services, such as fertility treatment and antenatal visits, due to cultural norms that prioritize women's roles (Fapohunda, 2013). Male attendance at clinics is frequently limited to initial

consultations or decision-making moments, and participation is not guaranteed. The fact that one man participated in the interview as a previously infertile individual reflects a rare but significant example of male engagement, providing a valuable, albeit limited, perspective on the male experience of infertility.

Third, the recruitment strategy, purposive sampling within antenatal clinics, naturally favoured women because these are female-dominated spaces. The study focused on people who had overcome infertility and were now pregnant, so antenatal clinics were the most appropriate and accessible place to find eligible participants. Men rarely attended these appointments, so their inclusion in the patient sample was inherently limited. This does not call into question the validity of the findings, but rather highlights a critical gap in male involvement in fertility care, one that the study indirectly illuminates.

The dataset's balance was enhanced by the inclusion of four male and one female reproductive experts, two male traditional healers, and two male and one female clergy members, thereby adding male provider viewpoints. These participants shared insights into how gender norms influence clinical interactions, treatment recommendations, and spiritual interventions, adding to our understanding of male roles in the larger fertility care ecosystem. It is also important to note that the study's design did not aim to produce a statistically representative sample, but rather to generate rich, in-depth narratives from information-rich cases. As a qualitative exploratory study, its strength is in depth and contextual insight, not numerical balance (Carr, 1994). The 41 women who shared their stories provide profound insight into the emotional, social, and cultural dimensions of infertility, while the account of the 9 males adds a unique perspective to our understanding of male vulnerability and participation.

Finally, the gender imbalance in the participant sample reflects real-world sociocultural dynamics surrounding infertility in Ibadan, Nigeria, rather than a methodological flaw. It emphasizes the gendered burden of infertility, the marginalization of men in reproductive healthcare settings, and the importance of future interventions and research that actively promote male engagement. Rather than weakening the study, this distribution adds to its authenticity and relevance by revealing not only what participants said but also what their presence or absence reveals about the social meaning of infertility in this setting.

## Conclusion

The research design guarantees a rigorous, ethical, and contextually grounded investigation into infertile couples' fertility care preferences in a socio-culturally diverse setting. The study uses thematic analysis within a qualitative exploratory framework to capture the complexity of decision-making, the emotional weight of treatment pathways, and the interaction of modern medicine, tradition, and faith. The findings are expected to have a significant impact on clinical practice, public health education, and reproductive health policy development, especially in areas where access to care, dedicated follow-up of unexplained infertility and cultural beliefs influence reproductive outcomes (Vaughan, et al., 2022).

## **Population and Sample of the Research Study**

The population for this qualitative study consists of previously infertile individuals who have achieved fertility and infertility healthcare providers. Ibadan, Oyo State, Nigeria, was chosen as the primary research site due to its demographic representation of Nigeria's diverse

ethnic, cultural, and religious composition.

According to the National Population Commission of Nigeria and the National Bureau of Statistics (2021), Ibadan is one of Africa's most populous cities, and it provides an ideal sociocultural context for studying the multifaceted nature of infertility and its treatment (Adelekan, 2016). The city has a complex healthcare landscape, with 236 private for-profit healthcare facilities, 31 public healthcare institutions, and 8 non-profit organizations, creating a diverse environment in which fertility care is accessed and experienced by people from all socioeconomic backgrounds (Ebigbola, 2000). The study was conducted across strategically selected sites, two IVF clinics, two public healthcare facilities (State Hospital and Primary Health Centre), one spiritual birthing centre, and one traditional healing centre, all located within Ibadan. These locations were specifically chosen to represent a wide range of fertility care pathways, including medical, faith-based, and indigenous approaches, allowing for a thorough examination of treatment decision-making and its psychosocial implications.

The study included 50 participants, with 41 females and 9 males. Among the 40 people who had previously experienced infertility and successfully conceived, 39 were women and one was male. The male participant was the only one in the patient cohort who accompanied his wife to the antenatal clinic and agreed to an interview. This gender distribution reflects the sociocultural context of infertility in Ibadan, where childlessness is primarily viewed as a woman's burden, resulting in increased visibility and engagement of women in fertility care settings (Dyer, 2007; Adetoro & Ebomoyi, 1991). Antenatal clinics, the primary recruitment site for previously infertile individuals, are overwhelmingly attended by women, with few male partners present. This pattern of healthcare use, shaped by gender norms that classify reproductive health as a female domain (Fapohunda, 2015), naturally influenced the patient

sample composition. While this limits direct male patient perspectives, the inclusion of male fertility specialists, traditional healers, and clergy assisted in incorporating male provider viewpoints. The study's qualitative exploratory design prioritizes depth and contextual insight over demographic representativeness, and the experiences shared by participants are still rich and valid within this framework. Purposive sampling, a method that prioritizes information-rich cases to ensure in-depth insights into the lived experiences of infertility and its treatment, guided the selection of all the participants.

The inclusion criteria for patient participants included a demographic range of 18 to 65 years, reflecting the reproductive age span during which infertility is most prevalent and treatment decisions are actively made. This age range allowed for the inclusion of individuals at various life stages, from those newly confronting infertility to those who had endured prolonged struggles, thereby facilitating an understanding of how the duration of infertility influences decision-making processes and emotional outcomes. Both male and female participants were included to capture the gendered dimensions of infertility, recognizing that reproductive challenges affect couples dyadically and often entail distinct psychosocial experiences for each partner. Participants who were ill or had any form of disability were excluded from the study.

While the majority of participants were married or in long-term relationships, reflecting the societal norm that childbearing is a shared marital responsibility, none of the 40 patient participants were single individuals pursuing parenthood outside traditional couple dynamics, whether by choice or necessity.

The sample was further diverse in terms of educational background, with participants ranging from no formal education to advanced academic degrees. This variation allowed the study to look into how different levels of education affect health literacy, access to information, and engagement with various treatment options.

Religious and cultural diversity was also a key consideration; participants represented the major ethnic groups (Yoruba, Igbo, Hausa), religions (Christianity, Islam, traditional African religions), and cultural traditions present in Ibadan. This diversity was essential, as religious and cultural beliefs profoundly shape perceptions of infertility, attributions of causality, and preferences for medical, spiritual, or traditional interventions (Ying et al., 2015; Turner, 2020; Hook et al., 2021; Jaradat & Zaid, 2019). For instance, some religious doctrines may discourage or prohibit certain assisted reproductive technologies (ART), while others may encourage faith-based healing practices such as prayer, fasting, or pilgrimage (Khan & Konje, 2019; Domar, 2005).

The inclusion of participants with varying durations of infertility, from several months to over a decade, allowed for an analysis of how the chronicity of the condition impacts emotional resilience, treatment persistence, and eventual decision-making.

The recruitment of the 10 provider participants, fertility specialists, clerics, and traditional healers, was conducted through a purposive sampling approach, ensuring that individuals with substantial experience and recognized expertise in their respective domains were included.

Fertility specialists were identified through professional networks and clinic directories, while clerics and traditional practitioners were located via community referrals, online directories,

and Google Maps, followed by preliminary assessments of their relevance and practice scope. This method ensured that the provider sample could offer authoritative perspectives on patient motivations, treatment efficacy, ethical considerations, and inter-system dynamics between medical and non-medical care.

A multi-stage recruitment process was employed to ensure ethical rigor and methodological consistency. Initial outreach was conducted through healthcare facilities, and community organizations that support patients who have overcome infertility. Individuals who expressed interest were given detailed information about the study's purpose, procedures, and ethical safeguards, and informed consent was obtained prior to participation. Individuals with severe physical disabilities or critical illnesses were excluded because they could impede meaningful participation in the research process or introduce confounding variables unrelated to infertility. The qualitative data were gathered through semi-structured, in-depth interviews (Showkat & Parveen, 2017) and subjected to thematic analysis, a method that identifies recurring patterns, narratives, and latent meanings within a dataset. This analytical approach is consistent with the study's exploratory design, which emphasizes depth, context, and interpretive richness over statistical generalizability (Flick, 2013).

While 50 participants is a small sample size in quantitative terms, it is adequate for qualitative research where the goal is saturation of themes and diversity of perspectives rather than numerical representativeness (Naderifar, 2017). This size allows for a more nuanced examination of how sociocultural, economic, and institutional factors influence fertility decisions in Ibadan. It also promotes ethical research practices by allowing for personalized, empathetic engagement with participants, which is especially important given the emotionally

charged nature of infertility. The sample's manageability ensures high-quality data collection (Collingridge & Gantt, 2019), transcription, and analysis, with adequate resources for rigorous coding, peer debriefing, and member checking (Mocănaşu, 2020). The population and sample design of this study reflect a deliberate effort to generate a holistic, contextually grounded understanding of infertility care choices and their psychosocial consequences, capturing the complexity of human experience within a culturally dynamic urban setting.

### **Materials/Instrumentation of Research Tools**

The quality, relevance, and validity of any qualitative research instrument play a crucial role in determining the integrity and rigour of a study. In this research, which explores the multifaceted decision-making processes and psychosocial experiences of infertile couples in Ibadan, Nigeria, the primary data collection tool was a semi-structured, open-ended interview guide designed to elicit rich, in-depth narratives from both patients and healthcare providers (see Appendix D1 and D2). Rather than relying on existing instruments from the literature, this tool was self-developed, systematically refined, and rigorously validated to ensure it accurately captured the complex interplay between medical, traditional, spiritual, and emotional dimensions of fertility care choices.

The development of the interview guide was grounded in the study's four core objectives: to investigate the key factors influencing treatment choices for infertility; to

examine the psychosocial impact of different fertility care options; to identify barriers to making informed decisions; and to gain a comprehensive understanding of how medical, traditional, and spiritual approaches are perceived and utilized. Given the deeply cultural and emotionally sensitive nature of infertility, the instrument was designed to prioritize participant voice, contextual nuance, and narrative depth over standardized or quantitative measurement. Open-ended questions enabled participants to express their experiences, beliefs, and emotions in their own words, fostering authenticity and reducing the risk of researcher-imposed interpretations.

The research instrument consisted of three distinct but thematically aligned interview guides tailored to the three participant groups: individuals who had previously experienced infertility and successfully conceived, fertility specialists, and traditional healers or clergy members. This differentiation ensured that the questions were professionally and contextually appropriate while maintaining thematic consistency across the dataset. Individuals who had overcome infertility were selected specifically to allow for reflective and emotionally distanced accounts of their journeys, thereby promoting candid and insightful narratives.

For previously infertile individuals, the interview guide included 14 open-ended questions exploring various aspects of their fertility journey. These covered personal characteristics such as age, marital status, education, religion, occupation, lifestyle, and financial background; the onset and duration of infertility; initial emotional reactions and coping strategies; the pathways they pursued, whether medical, traditional, or spiritual; the influences on their treatment decisions, including family expectations, religious beliefs, cost considerations, and social pressure; the psychosocial consequences they faced, such as stigma,

marital strain, or social isolation; and their reflections on outcomes, emotional resolution, and advice they would offer to others.

Fertility specialists, traditional healers, and clergy members were asked 12 open-ended questions focusing on common patient profiles and motivations; observed trends and challenges in treatment; perceived psychological burdens among patients; ethical considerations in their practice; interactions between different treatment systems, including referrals, conflicts, or collaboration; and general recommendations for individuals experiencing infertility. Each question was carefully phrased to encourage detailed, narrative responses rather than brief or factual answers. For instance, instead of asking a closed question like “Did you use herbal, spiritual, or modern medicine?” the instrument prompted participants with: “Where did you seek treatment during your infertility? What factors influenced your decision or preference for a particular provider? Were the choices you made helpful or harmful to your desired outcome?” This approach invited participants to explain not only what actions they took, but also the reasoning behind them and their emotional experiences, aligning closely with the study’s focus on lived experience and psychosocial impact.

The content of the instrument was informed by an extensive review of literature on infertility, reproductive health, psychosocial well-being, cultural beliefs, and treatment decision-making. Key themes from prior research, such as the stigma associated with childlessness (Araoye, 2003), gendered blame in marital relationships (Dyer, 2007), spiritual coping mechanisms (Ellison & Levin, 1998), and financial and structural barriers to care (Dunbar & Shultz, 2021), were integrated into the design of the questions to ensure comprehensive coverage of the phenomenon under investigation.

To establish content validity, the extent to which the instrument measured the intended constructs, the development process included consultation with experts in infertility medicine, clinical psychology, the principal researcher's academic supervisor, and the Unicaf academic review board. These experts evaluated the relevance, clarity, comprehensiveness, and appropriateness of the questions, assessing whether they aligned with the research objectives, used clear and non-judgmental language, covered all key domains (medical, emotional, cultural, and spiritual), and followed a logical sequence that supported depth of response. Based on their feedback, several revisions were made. For example, broad or vague questions such as "What recovery steps did you take? Were your family or the government part of your recuperation?" were rephrased to be more specific and evocative: "What steps did you take to address your infertility, and in what ways were your family or community involved?" Questions with potential cultural insensitivity were revised to be more inclusive of diverse belief systems and practices.

Following expert review, the instrument underwent face validity testing through a pilot study conducted in Ibadan with a small sample from the target population. This included four individuals: one fertility specialist, one traditional healer, one clergy member, and one woman who had previously experienced infertility and sought treatment. The pilot interviews were conducted in person using the same procedures as the main study: face-to-face interaction, audio recording with consent, and administration of written informed consent. The aim was to assess the clarity of the questions, the natural flow of the interview, the average duration of the session, participants' comfort level, and the quality and depth of the responses obtained.

After each pilot interview, participants engaged in a brief debriefing session where they were invited to share feedback. They were asked whether any questions were confusing or

difficult, if any important topics were missing, whether the interview felt too long, too short, or appropriate in length, and whether they felt comfortable and willing to participate in the full study. Their input led to several improvements. Some questions were found to be redundant and were either merged or removed. The sequence of questions was reorganized to follow a more logical narrative arc, from diagnosis and treatment to outcomes and reflections. Sensitive topics, particularly those related to social and familial experiences during infertility, were moved toward the end of the interview to allow rapport to be established first. Additionally, the instrument was translated into Yoruba, the local language, to accommodate participants with limited formal education and to enhance accessibility and comprehension.

During the pilot phase, the average interview duration was approximately 15 to 20 minutes for patient participants and providers, which was considered optimal for maintaining engagement without causing fatigue.

The refinement of the instrument was an iterative and responsive process. After each round of feedback from experts and pilot participants, the guide was revised, reviewed again, and retested until no further significant changes were suggested. This cyclical approach ensured that the final version was both methodologically sound and practical for use in the field.

The final instrument was organized into thematic sections to provide structure while allowing flexibility for probing and follow-up questions. These sections included: background and diagnosis (covering demographics, onset of infertility, and diagnostic experiences); treatment pathways (exploring motivations, options pursued, selection criteria, and influencing factors such as family, religion, or cost); psychosocial impact (examining emotional,

relational, and social consequences); cultural and spiritual dimensions (investigating the role of faith, traditional beliefs, and community support); and reflections and outcomes (inviting participants to share lessons learned, personal growth, and advice for others). This thematic organization enabled the researcher to maintain focus while allowing participants to guide the conversation within each domain, resulting in a conversational and participant-centred interview style.

The use of the instrument was guided by a strong ethical framework. The study received formal approval from relevant institutional review boards and ethics committees in Ibadan, Nigeria. Prior to each interview, informed consent was obtained from every participant. This process involved a clear explanation of the study's purpose, the voluntary nature of participation, the right to withdraw at any time, assurances of confidentiality, and details about audio recording and data anonymization. Participants were provided with a written consent form in either English or Yoruba, depending on their preference, and were allowed to ask questions. In accordance with local ethical guidelines, those who were unable or unwilling to sign provided verbal consent, which was documented by the researcher.

To protect privacy, all identifying information was removed during transcription and replaced with anonymized codes (e.g., P1, Fertility Specialist 3). Data were stored securely with password protection and backed up to ensure integrity. The instrument itself did not collect any personal identifiers, further safeguarding participant confidentiality.

Accurate transcription was critical to maintaining data integrity, as it formed the bridge between spoken narratives and written analysis. A standardized transcription protocol was therefore developed and strictly followed. This included verbatim transcription of all spoken

words, pauses, repetitions, and utterances to preserve the authenticity of participants' voices. Relevant nonverbal cues, such as laughter, sighs, or emotional pauses, were noted in brackets where they added meaning. Transcriptions were performed by a trained research assistant and independently verified by the principal researcher to ensure accuracy. This dual-check system enhanced the reliability of the dataset and minimized the risk of transcription errors.

The decision to use open-ended questions as the sole mode of inquiry was deliberate and aligned with the principles of qualitative exploratory research. Unlike closed-ended or structured surveys, open-ended questions do not constrain responses to predefined categories, allowing space for unexpected insights, culturally specific expressions, and emergent themes. In the context of Ibadan, where medical, spiritual, and traditional healing systems coexist and often intersect, this flexibility was essential. It enabled participants to describe treatments not recognized in Western medicine, such as "prayer water" or "night vigils", to articulate emotional experiences using culturally resonant phrases like "my God has not forgotten me" or "God has done it," and to explain how decisions were shaped by family dynamics, religious authority, or economic hardship. Moreover, the open-ended format supported real-time probing. For example, if a participant mentioned being called a "witch" due to childlessness (Kawango, 1995), the interviewer could gently follow up with, "Can you tell me more about how that made you feel?" This interactive element deepened the data and reinforced the study's goal of conducting a thorough thematic analysis within an exploratory qualitative framework.

While the instrument demonstrated several strengths, its comprehensiveness, cultural sensitivity, and methodological rigour, certain limitations must be acknowledged. As a self-report tool, it is susceptible to recall bias and social desirability bias, where participants may

unintentionally distort their accounts due to memory limitations or the desire to present themselves in a favourable light. Individuals with low literacy levels or those experiencing high emotional distress may have found it challenging to engage deeply with reflective questions. Additionally, the instrument is context-specific and may require adaptation before use in other cultural or geographic settings.

Despite these limitations, the strengths of the instrument far outweigh its drawbacks, particularly given the study's emphasis on contextual depth and understanding over broad generalizability (Carr, 1994).

In summary, the research instrument developed for this study is a methodologically robust, ethically grounded, and culturally responsive tool designed to explore the complex realities of infertility treatment choices and their psychosocial consequences in Ibadan, Nigeria. Through a rigorous process of literature-informed design, expert validation, pilot testing, and iterative refinement, the instrument was optimized to capture the authentic voices of both infertile individuals and care providers. The use of open-ended, semi-structured questions facilitated the collection of rich, nuanced data, laying a strong foundation for meaningful thematic analysis and contributing valuable insights to the field of reproductive health research.

### **Study Procedure**

The study titled "*Fertility Care Choices and Their Psychosocial Implications in Ibadan, Oyo State, Nigeria*" was conducted in full compliance with rigorous ethical standards governing research involving human participants. Prior to the commencement of data collection, the research protocol underwent thorough review and received formal approval

from both the Unicaf Ethical Review Board and the Oyo State Ministry of Health in Ibadan (See Appendix E2, E3 and E4). These approvals confirmed that the study's design, methodology, and procedural safeguards met national and international ethical guidelines, ensuring the protection of participants' rights, privacy, dignity, and overall well-being.

As part of the ethical review process, a comprehensive assessment was conducted covering all aspects of the research, including its objectives, methodological approach, participant recruitment strategy, interview instruments, and protocols for maintaining confidentiality, anonymity, and informed consent. The review board evaluated the potential risks and benefits associated with the study and determined that it posed minimal risk to participants while being conducted with the highest level of academic and ethical integrity.

All healthcare facilities, traditional healing centres, and spiritual institutions involved in the study granted institutional permission through official Gatekeeper Letters, which facilitated access and ensured cooperation. Informed consent was a central pillar of the study's ethical framework. Each participant received a detailed information sheet in both English and Yoruba, outlining the purpose of the research, the procedures involved, the expected duration of participation, potential risks and benefits, data management practices, and their rights as research subjects. This included the explicit right to withdraw from the study at any time without consequence. Before each interview, both verbal and written informed consent were obtained (See Appendix G). Participants were clearly informed that their involvement was entirely voluntary, that their responses would be kept strictly confidential, and that all data would be anonymized. A debriefing session accompanied the consent process to address any questions or concerns, ensuring that participation was fully informed and voluntary.

Confidentiality and data security were prioritized throughout the research, consistent with the standards established by Bourke & Wessely (2008). All collected materials, including audio recordings, verbatim transcripts, field notes, and electronic files, were securely stored in password-protected digital folders and locked physical storage units. Access to these materials was restricted exclusively to the principal researcher and authorized members of the research team, all of whom operated under formal confidentiality agreements. To further protect identities, each participant was assigned a unique alphanumeric code, such as P1, Clergy 1, or Fertility Specialist 1, in place of personal identifiers like names, addresses, or contact information. Direct identifiers were permanently removed from the dataset, and indirect identifiers, such as specific locations or job titles, were either modified or omitted to prevent re-identification. Data were reported in aggregate form in all research outputs, including publications, presentations, and reports, to ensure that no individual could be identified. All communication with participants, including scheduling interviews and follow-up exchanges, was conducted through secure and private channels. These confidentiality procedures were reviewed and approved by the Unicaf Ethical Review Board, confirming adherence to best practices in ethical research conduct.

The study was originally intended to take place at the University of Ibadan Teaching Hospital; however, due to administrative delays and high demand for access at that facility, the research location was adjusted. To enhance representation and accessibility, data collection was expanded across multiple settings in Ibadan. These included the State Hospital in Adeoyo, particularly within its fertility and antenatal units; Odo-Ona Elewe Primary Health Centre in Oluyole Local Government Area; two private fertility clinics; one traditional healing centre; and a spiritual birthing centre located within a church. Participants were selected

through purposive sampling to ensure inclusion of individuals with direct experience or professional expertise in infertility and its treatment. The final sample comprised 40 infertile couples, both male and female partners, aged between 18 and 65 years, all of whom had documented infertility and had successfully conceived, as verified during antenatal care. Additionally, ten healthcare and traditional providers were recruited, including five fertility specialists such as reproductive endocrinologists and embryologists, three clergy members from faith-based birthing centres, and two traditional healers specializing in herbal and indigenous fertility treatments. Prior to participation, all potential participants underwent preliminary screening to confirm eligibility and were provided with detailed information about the study's goals, procedures, and ethical safeguards through recruitment materials.

Data were collected through semi-structured, in-depth interviews using open-ended interview guides tailored to each participant group. Infertile couples were interviewed individually in private rooms at the respective clinics. Each session lasted approximately 15 to 20 minutes and covered topics such as their fertility journeys, treatment decisions, emotional experiences, and the influence of social and familial factors. With prior consent, all interviews were audio-recorded and supplemented with detailed field notes to capture contextual nuances. Fertility specialists were interviewed either in person or via secure phone calls, depending on availability. These interviews also lasted between 15 and 20 minutes and focused on their clinical experiences, ethical considerations in practice, observations of patient behaviour, and their perspectives on treatment effectiveness and the psychosocial dimensions of infertility. Clergy members and traditional healers were interviewed at their respective practice sites to gain deeper insight into their roles within cultural and spiritual contexts. During these interviews, field notes were used to document nonverbal cues and

environmental details that enriched the data. All interviews were guided by open-ended questionnaires: a set of 14 questions was used for infertile couples, while a 12-item questionnaire was administered to fertility experts, clergy, and traditional healers. These instruments were designed to explore key themes such as factors influencing treatment choices, the psychosocial impact of infertility, and cultural, religious, and economic barriers to care, as well as perceptions of medical, spiritual, and traditional interventions. The interview tools were pilot-tested with a small group of participants to assess clarity, relevance, and cultural sensitivity, and were subsequently refined based on feedback. The final versions of all instruments were approved by the Unicaf ethics committee.

All audio recordings were transcribed verbatim and anonymized to protect participant identities. The transcripts were then uploaded into Atlas.ti (version 24) software to support systematic coding and thematic analysis (Smit, 2002). The analytical process followed Braun & Clarke (2006) six-phase framework for thematic analysis, which involves becoming familiar with the data, generating initial (open) codes, identifying potential themes, reviewing and refining those themes, defining and naming them, and producing a final report enriched with illustrative quotations. To ensure consistency and methodological rigour, two researchers independently coded a subset of the transcripts. Any discrepancies in coding were discussed and resolved through collaborative dialogue, thereby enhancing intercoder reliability and strengthening the credibility of the findings.

Given the emotionally sensitive nature of infertility, the psychological well-being of participants was closely monitored throughout the research process. The research team remained attentive to signs of distress during and after interviews. When emotional discomfort was observed, participants were provided with information about available counselling

services and support groups. Although the study did not involve the collection of biological samples or any physically invasive procedures, the protection of participants' psychological safety remained a core ethical priority.

Data collection for both patient and provider interviews was conducted over a six-week period. Thematic saturation, the point at which no new themes emerged from the data, was achieved by the 35th interview. However, data collection continued beyond this point (saturation with diversity) to deepen the understanding of the phenomenon and to ensure a broad and diverse range of perspectives were captured in the final dataset.

In conclusion, this systematic and ethically grounded approach enabled the collection of rich, reliable, and contextually meaningful data. By incorporating perspectives from medical professionals, spiritual leaders, and traditional healers, the study developed a nuanced understanding of fertility care decision-making in Ibadan. The strict adherence to ethical standards, combined with transparency in methodology, enhances the study's validity, reproducibility, and potential to inform policy and practice in reproductive health, particularly in settings where medical, spiritual, and traditional systems intersect

### **Ethical Compliance and Participant Protection**

This qualitative study on fertility treatment options followed internationally accepted ethical standards. The emotional well-being, privacy, and autonomy of participants were all prioritized throughout the research process. The Unicaf Research Ethics Committee (UREC) and the State Ministry of Health in the relevant jurisdiction reviewed and approved the study, ensuring that it followed institutional, legal, and ethical guidelines.

### Informed Consent Process

A detailed information sheet informed participants about the study's objectives, methods, potential risks, benefits, and rights. The document included the research team's contact information and stated unequivocally that participation was voluntary and could be withdrawn at any time without affecting access to medical treatment. Each participant provided written consent before data collection began.

To accommodate participants with limited literacy, verbal explanations were provided, and thumbprints were used in place of signatures as needed. Information sheets and consent forms were provided in the participants' preferred languages to ensure clarity and comprehension. Before each interview, participants were reminded of their rights and assured that their participation was entirely voluntary as recommended by Holm & Ploug (2017).

Consent was also obtained for audio recording, with the assurance that all recordings would be securely stored and used only for research purposes. Participants' identities were disguised with pseudonyms, and all personal information was removed from transcripts, reports, and publications.

### Confidentiality and Data security

Data confidentiality was strictly maintained. Personal identifiers such as names, addresses, and contact information were replaced with unique codes in all datasets. All electronic data, including interview recordings and transcripts, were stored on secure servers in password-protected files that could only be accessed by the principal investigator and authorized research team members. Data transfers used encrypted channels to prevent unauthorized

access.

The research findings were presented in aggregate form, and direct quotes were thoroughly anonymized to prevent identification. Data was kept only for the time required by institutional guidelines, after which all identifying information was securely deleted.

#### Emotional Support and Participant Care

Given the sensitivity of infertility-related experiences, researchers used empathetic and respectful questioning techniques recommended by Miracle (2016) and Kupolati (2022). Participants were informed that they could pause or withdraw from interviews if they felt distressed. Referrals to licensed mental health professionals and local support groups were available as needed. Post-interview debriefing sessions were held to ensure that participants were not emotionally vulnerable.

#### Researcher Reflexivity and Positionality

The lead researcher recognized their dual roles as a medical professional and qualitative researcher. While professional expertise in fertility care improved contextual understanding, reflexivity was used to reduce potential biases. Cultural, gender, and personal biases were actively addressed through self-reflection, peer consultation, and triangulation.

To avoid personal experiences overshadowing participants' narratives, the researcher maintained an open, sceptical stance during data interpretation. Feedback from peers and mentors was encouraged throughout the research process to ensure transparency, objectivity, and integrity.

### Ethical Approval Process

The UREC received a comprehensive research proposal that included objectives, methods, participant protections, and ethical considerations. The State Ministry of Health, Oyo State, Ibadan, gave its approval as well. Revisions were made in response to feedback from the UREC and academic supervisors, and all conditions outlined in the approval letter were met.

Periodic progress reports were submitted through the designated virtual learning environment (VLE). The research team followed all data handling and participant protection protocols as specified. Ethical considerations were upheld throughout the dissemination process, with participant anonymity strictly protected in all publications and presentations. All study outputs explicitly acknowledged the UREC's approval.

### **Data Collection**

This study employed a qualitative exploratory design to investigate the decision-making processes, psychosocial experiences, and sociocultural contexts of individuals and couples undergoing infertility treatment. A qualitative approach is particularly well suited to exploring participants' lived experiences, personal meanings, and subjective perspectives within their natural environments, as noted by Creswell & Poth (2018). The research was guided by two central questions. The first sought to understand the factors that influence an infertile couple's treatment decisions. The second aimed to explore the psychological and social experiences of individuals facing infertility challenges.

The qualitative design enabled a deep and comprehensive exploration of these questions by generating rich, descriptive narratives that captured the complexity of

participants' journeys. This was achieved through semi-structured interviews, observational techniques, and detailed field notes, all of which contributed to the collection of contextually grounded and emotionally nuanced data.

For participant recruitment, purposive sampling was used, a method commonly employed in qualitative research to select individuals with specific characteristics directly relevant to the research objectives, as outlined by Patton in 2015. The sample included individuals and couples who were had recently completed infertility treatment. Inclusion criteria required that participants be adults between the ages of 18 and 65, have a documented diagnosis of infertility, have engaged in or completed a treatment pathway, whether medical, spiritual, or traditional, and be willing to provide informed consent and participate in an audio-recorded interview. Participants who were ill or had any form of disability were excluded from the study.

Ethical considerations were central to the recruitment process. Participants were recruited from antenatal clinics, and each provided written informed consent before taking part. A target sample of 20 to 30 infertile couples, comprising 40 to 60 individuals, was sought. Recruitment persisted until theoretical saturation was reached, defined as the stage at which no additional codes, themes, or insights concerning decision-making arise from the data, consistent with established practices in qualitative research. While this number exceeds conventional thresholds for qualitative saturation as suggested by Guest and colleagues in 2006, it was justified by the diverse socioeconomic, religious, and cultural backgrounds of the participants, which required a more extensive exploration to fully capture the range of experiences across different subgroups.

Data collection was primarily conducted through face-to-face, semi-structured interviews. This method allowed the researcher to maintain a consistent line of inquiry while retaining the flexibility to explore new or unexpected themes as they emerged during conversations. The interview guides were reviewed and refined by fertility care experts and qualitative research specialists to ensure they were culturally appropriate and conceptually sound.

The interview protocol covered several key areas. It began with the collection of demographic information, including age, educational background, marital status, religious affiliation, and relevant medical history. It then moved into a discussion of the infertility journey, covering the onset of infertility, the process of diagnosis, treatment history, and any delays encountered. The decision-making process was explored in depth, with attention to the roles played by partners, family members, religious beliefs, and financial limitations. Participants were also invited to reflect on their emotional and psychosocial experiences, including the impact of stigma, changes in personal identity, and the coping strategies they employed. Finally, the interview examined participants' perceptions of the care they received, their expectations, and any recommendations they had for others facing similar challenges.

Each interview lasted between 15 and 20 minutes and was conducted in the participant's preferred language, either Yoruba or English. When necessary, professional translators were used to facilitate communication. All interviews were audio-recorded with consent, then transcribed verbatim and translated into English, with translation accuracy verified by bilingual experts.

In addition to the interview transcripts, the researcher maintained detailed field notes and observational memos immediately after each session. These captured nonverbal cues such as tone of voice, emotional expressions, pauses, and body language, as well as contextual observations and the researcher's reflections. These supplementary materials were treated as integral components of the qualitative dataset and were used to enrich the interpretation of participants' narratives.

The study strictly adhered to ethical protocols throughout the data collection process. Participants were assured of complete confidentiality and anonymity and were informed of their right to withdraw from the study at any time without consequence. Audio recordings were encrypted and stored securely, accessible only to the principal investigator and authorized members of the research team. Personal identifiers were removed and replaced with pseudonyms or unique participant codes to protect identities. In cases where participants exhibited signs of emotional distress during or after the interview, they were offered a debriefing session and referred to mental health professionals or local support groups as appropriate.

Data management and preparation followed a structured and systematic process. All interviews were transcribed word for word, ensuring that every utterance, pause, and repetition was accurately captured. Translations from Yoruba to English were cross-checked by bilingual experts to maintain fidelity to the original meaning. The transcripts were then cleaned and formatted for analysis, with any inconsistencies or omissions corrected. Each transcript was assigned a unique identifier based on the participant's demographic profile and the date of the interview.

Supplementary materials such as field notes, observational memos, and debrief summaries were digitized and integrated with their corresponding interview transcripts. This holistic approach ensured that all relevant qualitative data were unified and ready for analysis. All digital files were stored in encrypted folders with restricted access, ensuring that only authorized researchers could view or use the data. This rigorous approach to data management upheld the integrity, security, and confidentiality of the research throughout its duration.

### **Coding Strategy**

This qualitative study employed a systematic coding technique to organize, interpret, and analyze textual data (Abraham, 2015; Elliott, 2018). To support this process, the researcher utilized Atlas.ti, a qualitative data analysis software developed by Smit in 2002 (Ritchie & Spencer, 2002). During data preparation, the software was used to import various forms of data, including interview transcripts, field notes, documents, and media files. The data were then methodically formatted and categorized into files, folders, or groups based on thematic areas, data sources, or chronological order to facilitate structured analysis as highlighted by Akinyode & Khan (2018).

The researcher began by immersing himself in each document to develop a comprehensive understanding of the content. This immersion allowed for the identification of key narratives, emotional undertones, and contextual patterns before formal coding commenced. Initial codes were generated by assigning descriptive labels to meaningful segments of the data. Atlas.ti enabled direct text coding, supporting a detailed and iterative

process. At this stage, the codes were broad and descriptive, designed to capture the essence of the data without requiring deep analytical interpretation.

Following this preliminary coding phase, the researcher reviewed the codes to identify patterns, relationships, and recurring ideas. Similar codes were grouped, while complex or multifaceted codes were separated for further examination. This process of refinement continued as codes were reorganized and classified into broader conceptual categories. Atlas.ti facilitated this organization by allowing the creation of code groups, which helped coherently structure interconnected ideas.

Memos were extensively used within Atlas.ti to document evolving thoughts about code relationships, emerging themes, theoretical insights, and observations made during the coding process. These memos served as a reflective tool, enabling the researcher to deepen their engagement with the data and refine interpretations over time.

Core themes were then established by synthesizing the coded data into overarching constructs that captured the central experiences and insights relevant to the research questions. These themes represented the essence of the dataset and were critical to addressing the study's objectives. Atlas.ti supported the visual mapping of codes through its network function, allowing the researcher to create diagrams that illustrated relationships between codes, categories, and themes. This visualization helped clarify how different concepts were interrelated and contributed to the development of a cohesive analytical framework.

To further refine the themes, sub-codes were developed, creating a hierarchical structure that demonstrated how broader themes were composed of more specific elements. This layered approach allowed for both breadth and depth in the analysis. The coding process

was iterative, with codes continuously reviewed and revised as new insights emerged from the data. This constant comparative method ensured that the analytical framework remained grounded in the empirical evidence until thematic saturation was achieved, as argued by Hennink & Kaiser (2022).

Analytical reports were generated within Atlas.ti and exported for further review. These reports compiled codes, associated quotations, memos, and network diagrams, providing a consolidated view of the findings and laying the foundation for the final interpretation. The visual and textual outputs from Atlas.ti enhanced the researcher's ability to understand the data, respond to the research questions, and draw well-supported conclusions.

Throughout the process, Atlas.ti maintained a complete record of all coding decisions, memo entries, and revisions. This audit trail ensured transparency, traceability, and reproducibility of the analytical process, reinforcing the credibility and rigour of the study.

#### Alignment of Research Questions

Each stage of the coding process was explicitly aligned with the two primary research questions. The first research question focused on the factors influencing treatment choices among infertile couples. Relevant codes generated during analysis included family pressure, economic constraints, religious prescriptions, medical mistrust, relationship dynamics, stigma avoidance, and counselling support. These were grouped under the overarching topic of Infertility Care Choices, ensuring that the analysis remained focused on decision-making influences.

The second research question explored the psychological and social experiences of individuals facing infertility challenges. Codes such as hopelessness, shame, marital tension, peer pressure, isolation, and suicidal tendency emerged from participants' narratives and were clustered under the theme Psychosocial Implications of Infertility. This alignment ensured that the analytical process remained tightly connected to the study's core objectives while also allowing space for unexpected insights to surface and be meaningfully integrated.

### **Data Analysis**

The data analysis in this qualitative exploratory study was carried out with meticulous attention to depth, coherence, and scholarly rigour, ensuring that the findings accurately reflect the lived experiences, decision-making processes, and psychosocial realities of infertile couples and fertility care providers in Ibadan, Nigeria.

The study used a reflexive thematic analysis (RTA) approach, as articulated by Braun and Clarke (2006), within a qualitative exploratory framework to examine the criteria influencing treatment choices, explore their psychosocial consequences, investigate barriers to informed decisions, and understand medical, traditional, and spiritually focused pathways. This method was chosen because of its adaptability, transparency, and ability to extract rich, interpretive insights from complex narrative data.

Atlas.ti (version 24) facilitated the entire analytical process by allowing for systematic coding, theme development, relationship visualization, and the maintenance of a comprehensive audit trail. The use of Atlas.ti ensured methodological precision, improved data management, and allowed the researcher to engage deeply with the dataset while maintaining analytical transparency.

### Phase 1: Immersion and Familiarization with the dataset.

Before beginning formal coding, the researcher immersed himself in the data by reading all 50 interview transcripts, 40 from infertile couples and 10 from fertility specialists, traditional healers, and clergy. This phase was about developing theoretical sensitivity, or a deep understanding of the emotional, cultural, and relational nuances embedded in participants' narratives, rather than simply absorbing content.

During immersion, the researcher used analytic memoing, a core Atlas.ti feature, to record initial impressions, emotional responses, potential patterns, and emerging questions. These memos recorded not only what was said, but also how it was said, including tone, pauses, repetitions, and metaphors that revealed underlying meanings. For example, a participant's statement, "Not having a child is like coming into this life for nothing," was interpreted not only as a physical failure but also as a profound existential rupture, indicating deeper themes of self-worth, embodiment, and identity loss.

This stage ensured that the subsequent coding was interpretive rather than mechanical, allowing the researcher to approach the data with openness and critical awareness.

### Phase 2: Initial (Open) Coding (capturing Semantic and Latent Meaning)

The researcher then used open coding to assign descriptive labels (codes) to meaningful text segments. Using Atlas.ti's user-friendly interface, text passages were highlighted and tagged with concise, evocative labels that captured both semantic content (what was explicitly stated) and latent meaning (underlying assumptions, emotions, and ideologies).

From 50 documents loaded, 401 initial codes, 586 quotations, 71 memos, and 13 networks were generated, demonstrating the dataset's granularity and diversity.

Atlas.ti's colour-coding and code families feature allowed for quick visual organization, allowing the researcher to cluster similar codes and identify early patterns. Importantly, this phase was inductive and data-driven, allowing themes to emerge naturally rather than being imposed by pre-existing theoretical frameworks.

### Phase 3: Focused Coding and Theme Development

Following open coding, the researcher moved on to focused coding, which involved refining, consolidating, and organizing the initial codes into larger, more analytically significant categories. Similar codes were combined, redundant codes were eliminated, and complex or ambiguous codes were separated for further investigation.

Atlas.ti's code co-occurrence tool was useful during this phase, revealing how frequently specific codes appeared together. For example, the co-occurrence of "poor diagnosis" and "reliance on traditional healer" suggested a causal or contextual link, prompting additional research into barriers to timely medical care.

Using Atlas.ti's hierarchical coding structure, the researcher created a multi-level coding framework.

Level 1 consisted of broad code groups such as Psychosocial Impact, Treatment Options, and Cultural Beliefs.

Level 2 included subcategories such as stigma, marital strain, and spiritual coping.

Level 3 represented core themes such as Prayer and Faith as a Lifeline.

This hierarchical organization ensured that the analysis was systematic and layered, allowing for broad thematic coverage as well as fine-grained interpretive depth.

Phase 4: Theme generation and theoretical refinement.

The core of the analysis was theme generation, which involved synthesizing coded data into coherent, overarching themes that directly addressed the research questions. Themes were more than just summaries of common topics; they were interpretive constructs that captured the essence of participant experiences.

Five primary themes emerged, each supported by rich, illustrative quotations and aligned with the study's objectives.

The first theme, Psychological, Sociocultural and Medical themes are all about Navigating a Maze of Hope and forging a sequential Pathways Through Medical, Spiritual, and Traditional Systems, captures the non-linear, iterative journey that many couples took in search of a solution, which often included visits to medical clinics, prayer camps, and herbalists. It reflects the multifaceted nature of care and the negotiation of belief systems in decision-making.

The second theme, Personal values, preferences and behavioural themes, explains the silent suffering of couples, Shame, and Emotional Withdrawal reveal how couples experiencing infertility are frequently privatized and stigmatized, while internalizing failure and disengaging from emotional discourse, despite experiencing profound psychological distress.

The third theme, Religion and Faith as a Lifeline: Divine Intervention and the Persistence of Hope, highlights how spiritual beliefs can serve as an important coping mechanism, providing emotional resilience, meaning-making, and hope even in the face of repeated treatment failure.

The fourth theme, *Barriers to Informed Choice: Misinformation, Cost, and Cultural Taboos*, identifies systemic and social barriers that prevent couples from making optimal, evidence-based decisions, such as financial constraints, a lack of health literacy, and gendered stigma.

Each theme was precisely defined, illustrated with verbatim quotes, and contextualized within the larger literature, including references to Dyer's work on gendered blame and Inhorn & Van Balen on treatment delays.

#### Phase 5: Visualization and Network Mapping using Atlas.ti

To gain more interpretive insight, the researcher used Atlas.ti's networking tool to create visual maps of thematic relationships. These diagrams depicted how codes and themes interacted, revealing intricate causal and contextual relationships.

These visualizations were more than just illustrative; they were analytical tools that assisted the researcher in identifying pathways of influence, system tensions, and points of convergence or conflict in the fertility journey.

#### Phase 6: Ensure Rigour and Trustworthiness.

To ensure the credibility, dependability, and transferability of the findings, several strategies were employed.

Peer debriefing involved discussions with academic colleagues about preliminary themes to test interpretive validity and identify potential biases.

Member checking was conducted by inviting a subset of participants to review a summary of the findings to confirm that the interpretations resonated with their own experiences.

Reflexivity was maintained through a reflective journal in which the researcher documented

personal and professional biases, such as their background as a medical doctor in fertility care, and reflected on how these might influence data interpretation.

An audit trail was preserved through Atlas.ti, which automatically recorded all coding decisions, memos, and revisions, ensuring transparency and reproducibility.

Triangulation was achieved by comparing data from multiple sources, patients, fertility specialists, traditional healers, and clergy, to enhance credibility and reduce the risk of bias.

#### Phase 7: Final Reporting and Interpretation.

The final stage involved generating analytical reports from Atlas.ti that combined all coded segments, memos, and visualizations into a structured narrative. These reports formed the foundation of the results chapter, enabling the researcher to present themes with clarity, depth, and evidential support.

The analysis prioritized synthesis over mere description, moving beyond listing participant statements to interpreting their significance, how biology, emotion, culture, and power intersect to shape treatment choices.

#### Conclusion

This study's data analysis was a dynamic, iterative, and deeply interpretive journey, rather than a linear, mechanical process. By combining the rigour of reflexive thematic analysis with Atlas.ti's advanced functionalities, the researcher was able to transform a rich, complex dataset into a coherent, compelling narrative that sheds light on the multidimensional reality of infertility in Nigeria. The end result is more than just a thematic summary; it is a profound understanding of how individuals and couples navigate one of life's most intimate and difficult experiences with resilience, faith, and optimism.

### **Summary of Key Points**

This qualitative study, titled *Fertility Care Choices and Their Psychosocial Implications in Ibadan, Oyo State, Nigeria*, adopted a systematic, transparent, and ethically rigorous methodological approach to explore the complex decision-making processes and lived experiences of infertile couples and fertility care providers. The research was guided by four primary objectives: to identify the factors influencing infertility treatment decisions, to analyze the psychological impact of those decisions, to identify barriers to making informed choices, and to gain a comprehensive understanding of medical, traditional, and spiritually based fertility care options.

To achieve these aims, the study employed a qualitative exploratory design, which is particularly suitable for investigating culturally embedded and under-researched phenomena where the goal is to generate rich, contextually grounded insights rather than test hypotheses. This approach enabled a thorough examination of personal narratives, belief systems, emotional responses, and social dynamics that shape reproductive decision-making in a socio-culturally diverse environment.

The study employed a thematic analysis approach within a qualitative exploratory framework, as defined by Braun & Clarke (2006), to identify, analyze, and report patterns or themes within a large dataset of narrative interviews. This method was selected for its flexibility, transparency, and capacity for interpretive depth, allowing for both semantic and latent interpretations of the data. While not phenomenological in the strict Husserlian sense, the design was interpretive and exploratory, aiming to understand how individuals make sense

of their fertility journeys within specific cultural, religious, and economic contexts. This aligns with the study's objective of integrating diverse perspectives, from medical specialists to traditional healers, to form a holistic understanding of treatment decision-making.

Ethical integrity was central to the research process. Formal approval was obtained from the Unicaf Ethical Review Board and the Oyo State Ministry of Health in Ibadan. A comprehensive research proposal was submitted prior to data collection, detailing the study's objectives, methodology, recruitment procedures, data management protocols, and safeguards for participant well-being and confidentiality. The review boards evaluated the study's adherence to core ethical principles such as autonomy, beneficence, nonmaleficence, and justice, as outlined by Beauchamp & Childress (2019).

All participating healthcare facilities, traditional healing centres, and spiritual institutions provided institutional permission through Gatekeeper Letters (Appendix F), ensuring compliance with local regulations and respect for organizational structures. The study adhered to the Declaration of Helsinki and best practices in qualitative research ethics. The approval process included a thorough assessment of potential risks and benefits, review of informed consent procedures, evaluation of data anonymization and storage methods, and confirmation of voluntary participation with the right to withdraw at any time without penalty.

Purposive sampling, a non-probability technique, was used to select information-rich participants who met specific criteria relevant to the research questions, as described by Patton in 2002. This approach ensured that individuals with direct experience of infertility and its treatment were included, thereby enriching the depth and relevance of the data. The final sample consisted of 50 participants: 40 infertile couples, both male and female partners, aged

between 18 and 65, who had a documented history of infertility and had conceived and attending antenatal care, and 10 healthcare and traditional providers. The provider group included five fertility specialists such as gynaecologists, reproductive endocrinologists, and embryologists, three clergy members from faith-based birthing centres, and two traditional healers specializing in herbal and indigenous fertility treatments.

Participants were selected to reflect diversity in treatment pathways, socioeconomic status, religious affiliation, and geographic location. Recruitment took place across multiple settings, including the State Hospital in Adeoyo, Ibadan, particularly within its fertility and antenatal units; Odo-Ona Elewe Primary Health Centre in Oluyole Local Government Area; two private fertility clinics; one traditional healing centre; and one spiritual birthing centre located within a church. Eligibility was confirmed through preliminary screening, and all potential participants received information about the study's purpose, procedures, and ethical safeguards.

Data were collected through semi-structured and in-depth interviews, using open-ended protocols tailored to each participant group. Infertile couples were interviewed individually in private clinic rooms, with each session lasting approximately 15 to 20 minutes. These interviews explored their fertility journeys, treatment decisions, emotional experiences, and social influences. With consent, sessions were audio-recorded and supplemented with detailed field notes. Fertility specialists were interviewed either in person or via secure phone calls, depending on availability, with discussions focusing on clinical experiences, ethical concerns, patient behaviours, and perspectives on treatment efficacy and psychosocial impact. Clergy and traditional healers were interviewed at their practice sites to better understand their

roles within cultural and spiritual frameworks, with field notes capturing nonverbal and environmental details.

Interviews were guided by open-ended questionnaires: 14 questions were used for infertile couples and 12 for fertility experts, clergy, and traditional healers. These instruments were designed to explore factors influencing treatment decisions, the psychosocial aspects of infertility, cultural, religious, and economic barriers, and perceptions of medical, spiritual, and traditional interventions. The questionnaires were pilot-tested and refined for clarity, relevance, and cultural sensitivity, with final versions approved by the ethics committee.

Informed consent was a cornerstone of the ethical framework (Spatz, Krumholz, & Moulton, 2016). All participants received a detailed information sheet in both English and Yoruba explaining the study's purpose, procedures, duration, potential risks and benefits, data handling practices, and their rights. This included the right to withdraw at any time. Verbal and written informed consent were obtained before each interview. For participants with limited literacy, verbal explanations were provided, and thumbprints were accepted as signatures when necessary. A debriefing session accompanied the consent process to ensure full understanding and voluntary participation. Audio recording commenced only after explicit verbal consent was given, and all communications were conducted through secure and private channels.

Strict confidentiality and anonymity protocols were maintained throughout the study. Each participant was assigned a unique alphanumeric code to replace personal identifiers such as names and contact details. Direct identifiers were permanently removed, and indirect ones were modified or omitted to prevent re-identification. All data, including audio recordings,

transcripts, and field notes, were stored in password-protected digital folders and locked physical storage, accessible only to the principal researcher and authorized team members under confidentiality agreements. Data were shared securely and reported in aggregate form to ensure no individual could be identified in any research outputs.

All interviews were transcribed verbatim and anonymized before being imported into Atlas.ti (version 24) for systematic coding and thematic analysis. The analysis followed Braun and Clarke's six-phase approach, beginning with data familiarization and progressing through open coding, theme development, theme refinement, definition, and final reporting. Atlas.ti's advanced features supported the creation of code hierarchies, co-occurrence tables, visual networks, and a complete audit trail, enhancing transparency and rigour.

To ensure trustworthiness, the study employed peer debriefing, member checking, reflexivity, and triangulation. The researcher maintained a reflective journal to acknowledge and mitigate personal biases, particularly as a medical doctor in fertility care. Regular consultation with peers and engagement with diverse literature supported objectivity and sensitivity.

In conclusion, this methodological approach is designed to yield a rich, reliable, and contextually meaningful data. By integrating perspectives from medical, spiritual, and traditional domains, the study aimed to achieve a nuanced understanding of fertility care decision-making in Ibadan. The strict adherence to ethical standards and methodological transparency is meant to strengthen the study's validity, replicability, and potential to inform reproductive health policy and practice. The use of thematic analysis supported by Atlas.ti

will enable a deep, interpretive synthesis that illuminates the multidimensional reality of infertility, one shaped as much by culture, emotion, and belief as by biology

## CHAPTER 4: FINDINGS

### Overview and Chapter Preview

This chapter provides a thorough discussion of the methodological rigour, trustworthiness, reliability, and validity, as well as the findings of the qualitative study "Fertility Care Choices and Their Psychosocial Implications in Ibadan, Oyo State, Nigeria."

The purpose of this qualitative exploratory study was to look into the complex, multifaceted experiences of infertile couples as they make choices about fertility treatment in a culturally rich and diverse sociomedical landscape. The primary goal is to address the objectives outlined in Chapter 1.

The study was guided by four interconnected research objectives: (1) to identify key factors influencing the choice of infertility treatment in Ibadan; (2) to investigate the psychosocial consequences of those treatment decisions; (3) to investigate the barriers that prevent informed decision-making; and (4) to gain a comprehensive understanding of how medical, traditional, and spiritually based fertility care options are perceived and used. These goals were met through semi-structured, in-depth interviews with 50 participants, including 40 people who had previously been infertile and successfully conceived, five fertility specialists, three clergy members from faith-based birthing centres, and two traditional healers. The novelty lies in the triangulation of medical, traditional, and spiritual pathways and the in-depth, context-specific exploration of the psychosocial consequences that quantitative studies overlook.

The findings of this qualitative exploratory study were not pre-structured around hypotheses; rather, they were allowed to emerge organically from the data through a systematic process of thematic analysis. The findings are well-organized in relation to the research questions, ensuring that each theme directly addresses one or more of the study's core objectives. For example, themes like Personal Values, Preferences, and Choices through Medical, Spiritual, and Traditional Systems directly addresses the first goal by depicting couples' non-linear, iterative journeys, which frequently include cycling between medical clinics, prayer camps, and herbal treatments in search of a solution. These themes emphasize the impact of family expectations, religious beliefs, financial constraints, and distrust in the medical system on decision-making.

The second research objective, the psychosocial impact of treatment decisions, is reflected in themes such as emotional impact (silent suffering, frustration, and emptiness), which reveal couples' internalization of stigma, marital strain, and psychological distress. Participants expressed feelings of worthlessness, isolation, and hopelessness, especially in settings where childlessness is socially stigmatized. These findings offer a more nuanced understanding of how infertility influences identity, relationships, and mental health.

The theme Barriers to Informed Choice captures the third objective: lack of government support, financial burden, misinformation, and age-related issues. This theme brings together age-related issues, government blame, and the secrecy surrounding infertility, all of which prevent couples from making fully autonomous and evidence-based decisions.

Finally, the theme Religion and Traditional Perspectives addresses the fourth objective, which is understanding the consequences of diverse care options. These themes demonstrate how spiritual and traditional interventions, while not medically validated, can provide emotional resilience, meaning-making, and a sense of agency in the face of repeated treatment failures.

Throughout the analysis, reflexive thematic analysis (Braun & Clarke, 2006) ensured that the findings were interpretive rather than descriptive, capturing both semantic content and latent meanings. The integration of data from multiple stakeholder groups, including patients, medical providers, spiritual leaders, and traditional healers, enabled triangulation, which increased the depth and credibility of the findings. The findings are presented in a narrative, thematic format that preserves the richness of participants' voices while systematically addressing each research question, fulfilling the exploratory goal of generating new insights into the lived reality of infertility in a Nigerian context.

### **Trustworthiness of Data**

This study utilized various validation strategies to ensure trustworthiness and rigour. The research team regularly reviewed theme definitions and preliminary analyses through peer debriefing to examine assumptions and refine interpretations. Two researchers independently coded a subset of transcripts using Atlas.ti (version 24), and discrepancies were resolved through consensus to improve intercoder reliability. Member checking was performed with a purposively selected subset of seven participants, including individuals with a history of infertility, fertility specialists, and traditional/spiritual healers. This group validated anonymized summaries of the findings for accuracy and relevance to their experiences. The

feedback, which largely confirmed the credibility of the interpretations, was integrated where minor clarifications were necessary, thus enhancing the study's authenticity and anchoring its conclusions in the participants' lived experiences.

### *Data Integrity*

In qualitative research, trustworthiness is the equivalent of validity and reliability in quantitative studies. It includes credibility, dependability, transferability, and confirmability, which Lincoln & Guba (1981) identified as critical criteria for assessing the rigour of qualitative research. This study used a reflexive thematic analysis approach within a qualitative exploratory framework to ensure that its findings were not only data-driven but also transparent, systematic, and ethical.

Credibility, or confidence in the accuracy of the data and interpretations, was established through a variety of strategies. First, the researcher's prolonged interaction with participants allowed for the establishment of rapport and creation of a safe space for open and honest dialogue. All interviews were conducted in private settings, such as clinics, shrines, and churches, or via secure phone calls, depending on participant preference and accessibility. The use of in-depth, semi-structured interviews allowed participants to describe their experiences in their own words, which increased the data's authenticity.

Member checking was a key technique for increasing credibility (Candela, 2019). After the initial themes were developed, summaries of the findings were shared with a subset of participants who confirmed that the interpretations were consistent with their own experiences.

This process of respondent validation helped to reduce misinterpretation and researcher bias, reinforcing the accuracy of the findings. Peer debriefing was also conducted with academic colleagues, who reviewed preliminary themes and provided feedback on interpretive validity, thereby increasing the analysis's credibility.

Trustworthiness was largely dependent on reflexivity. The researcher, a medical doctor with experience in fertility care, acknowledged the possibility of bias towards medical options. To address this, a reflexive journal was kept throughout the research process, documenting personal assumptions, emotional responses, and shifting interpretations. This self-awareness, combined with reading diverse literature and consulting with peers, allowed for a balanced and sensitive interpretation of the data.

A systematic and transparent analytical process ensured dependability, which refers to the consistency of the findings over time. The use of Atlas.ti (version 24) enabled meticulous documentation of all coding decisions, memos, and revisions, resulting in a comprehensive audit log. This digital record improves the study's dependability by allowing other researchers to follow the analytical process from raw data to final themes.

Transferability, or the extent to which findings can be applied in other contexts, was supported by detailed descriptions of the research setting, participants, and cultural context. The study recruited 50 participants from various backgrounds. 40 infertile couples who had successfully conceived or overcome infertility and were receiving prenatal care, five fertility specialists, three clergy members from faith-based birthing centres, and two traditional healers. Recruitment took place at several locations, including the State Hospital in Adeoyo, Odo-Ona

Elewe Primary Health Centre, two private fertility clinics, a traditional healing centre, and a spiritual birthing church. This purposive sampling strategy ensured a diverse range of treatment pathways, socioeconomic statuses, religious affiliations, and geographic origins, increasing the data's contextual richness and potential applicability to similar settings.

Confirmability, or neutrality of the findings, was achieved by triangulating data sources. The perspectives of patients, fertility specialists, traditional healers, and clergy were compared and contrasted, resulting in a more comprehensive and less biased understanding of fertility care decision-making. Furthermore, coding a subset of transcripts independently by two researchers improved intercoder reliability. Discrepancies were discussed and resolved through consensus, ensuring that interpretations were not solely based on the perspective of a single researcher.

### **Reliability and Validity of Data**

While qualitative research does not rely on statistical measures of reliability and validity, it does necessitate rigorous methods to ensure consistency and accuracy in data interpretation. Methodological transparency, systematic coding, and iterative theme refinement all contributed to the study's reliability, stability, and consistency. The research followed Braun & Clarke's (2006) six-phase framework for thematic analysis, which included data familiarization, initial coding, theme development, theme review, theme definition, and report writing. This structured but adaptable approach allowed for both semantic and latent interpretations, ensuring that the findings captured not only what participants said but also the underlying meanings, emotions, and ideologies.

The implementation of a clear coding framework improved reliability even further. Using Atlas.ti, the researcher built a hierarchical structure of codes, categorizing them into broader categories and core themes. For example, codes like "family pressure," "economic constraints," and "religious prescriptions," were grouped together under the overarching theme of "Personal Values and Preferences" while "medical mistrust", "delayed treatment", "Treatment failure", and "wrong diagnosis" were grouped under "Medical and Treatment Factors". Similarly, "Psychosocial Implications of Infertility" included codes such as "shame," "marital tension," "isolation," and "hopelessness". This systematic organization ensured consistency in data interpretation and made it easier to identify patterns throughout the dataset.

Taylor (2013) notes that validity in qualitative research is closely related to how meaning is constructed from participants' experiences. It necessitates transparency, self-reflection, and consistency between data and interpretation. This study ensured validity by employing a multi-layered approach. First, the research questions were carefully developed and refined in collaboration with the supervisor and the Unicaf research committee. They were tested with a small group of participants and then translated into Yoruba, the local language, to improve clarity and cultural relevance. This linguistic adaptation was critical, as many participants communicated more authentically in their native language.

Second, the data collection tools underwent rigorous validation. Fertility care specialists and qualitative methodologists reviewed the interview guides to ensure their content validity. Pilot testing identified areas for improvement, such as overly broad or culturally insensitive questions, which were revised accordingly. The ethics committee approved the final versions,

ensuring their appropriateness and relevance.

Third, the analytical approach was iterative and data-driven. Rather than applying pre-existing theoretical frameworks, themes emerged inductively from the data. This grounded approach ensured that findings were based on participants' lived experiences rather than the researcher's assumptions. According to Syed & Nelson (2015), the thoroughness of qualitative research execution determines its reliability. In this study, meticulous documentation, consistent application of coding rules, and continuous comparison of data segments ensured that the analysis was rigorous and reliable.

Furthermore, Golafshani (2003) equates credibility in qualitative research with validity, arguing that findings must accurately reflect the participants' experiences. This was achieved by providing detailed descriptions of the research context, participant characteristics, and data collection procedures. The use of verbatim quotes in the final analysis provided direct evidence of participants' voices, which improved the authenticity and validity of the interpretations, as suggested by Burnard (2004).

The study also looked into potential limitations that could affect reliability and validity. For example, translating Yoruba interviews into English presented difficulties, particularly in capturing idiomatic expressions and emotional nuances. To address this issue, bilingual research assistants were involved in the transcription process, and translations were cross-checked for accuracy. Similarly, individuals with primary infertility were excluded due to ethical concerns about emotional distress, which was acknowledged as a limitation. However, including participants who had overcome infertility allowed for more reflective and

emotionally detached accounts, which increased the depth and honesty of their stories.

Despite logistical challenges such as bureaucratic delays at the University Teaching Hospital, difficulty locating traditional healers, and low response rates from fertility specialists, the study met its recruitment objectives and reached thematic saturation by the 35th interview, with data collection continuing to enrich diversity and depth. These challenges were reported openly, adding to the study's overall credibility.

To summarize, this study demonstrates a high level of methodological rigour, transparency, and ethical integrity. Its systematic, reflexive, and participant-centred approach has resulted in findings that are not only credible and reliable but also deeply meaningful. The integration of multiple stakeholder perspectives, patients, medical professionals, spiritual leaders, and traditional healers, provides a comprehensive understanding of fertility care decision-making in Ibadan. The study's commitment to trustworthiness, reliability, and validity ensures that its insights are robust, transferable, and capable of informing policy, practice, and future research in reproductive health.

## **Results**

### ***Demographic Characteristics***

A total of 50 participants were recruited for the study, with 40 patients (39 females and one male) who had overcome a previous history of infertility and were no longer experiencing infertility (See Appendix A1). All of the 40 patients were married.

The remaining ten participants included individuals who provided medical treatment (n=5), traditional treatment (n=2), and spiritual treatment (n=3). The medical group consisted of fertility specialists who treated patients in hospitals. The traditional group included herbalists and traditional healers who used herbs, concoctions, scarification, and incantations to treat infertile couples. The spiritual group consisted of clerics who used religious and spiritual strategies such as prayers, holy water, and fasting to treat their patients. Appendix A1 showed the complete demographics of all the patients (n = 40) while Appendix A2 showed the demography of the Carers (n = 10). Table 1 below provides a comprehensive analysis of the percentage and frequency of occurrence of all demographic data collected, categorized by age range, for this study.

**Table 1**

*Demographic Characteristics of the Participating Patients*

Variable (Current Participants)	Age	of	Frequency (N)	Percentage (%)
20-24			0	0.0
24-29			9	22.5
30-34			16	40.0
35-39			7	17.5
40-44			6	15.0
45-49			2	5.0
50-54			0	0.0
Total			40	100%

Variable Marriage)	(Age	at	Frequency (N)	Percentage (%)
20-24			10	25.0
24-29			21	52.5
30-34			8	20.0
35-39			1	2.5
40-44			0	0.0
45-49			0	0.0
50-54			0	0.0

Total	40	100
Variable (Years of Waiting before Conception)		
0-1	n = 6 (15%)	15
>1 but <5	n = 26 (65%)	65
>5	n = 8 (20%)	20
Total	n = 40 (100%)	100
Variable (Highest Educational Status)		
Primary/Secondary	11	27.5
NCE/Polytechnic/University	28	70.0
None	1	2.5
Total	40	100
Variable (Alcohol Consumption)		
Yes	8	20
No	32	80
Total	40	100
Variable (Cigarette Smoking)		
Yes	0	0
No	40	100
Total	40	100
Variable (Gender)		
Female	39	97.5
Male	1	2.5
Total	40	100
Variable (Ethnicity)		
Yoruba	35	87.5
Ibo	2	5.0
Hausa	3	7.5
Total	40	100

Variable (Religion)	Frequency (N)	Percentage (%)
Muslim	10	25
Christian	30	75
Traditional Worshipers	0	0
Total	40	100

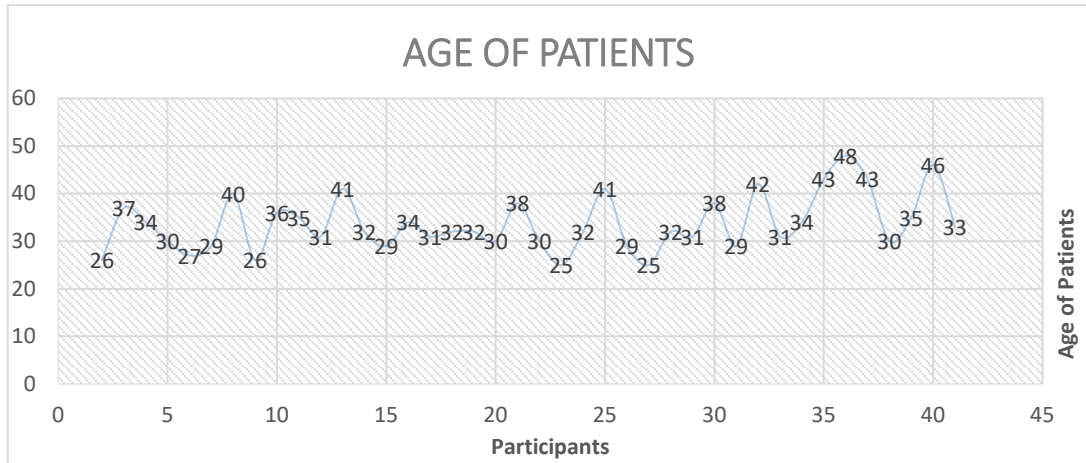
Variable (Financial status)	Frequency (N)	Percentage (%)
Low income	2	5
Medium income	38	95
High income	0	0
Total	40	100

### *Age*

The patients interviewed ranged in age from 25 to 48 years (See Figure 5 below), with a mean age of 33.67. The standard deviation of the ages is 5.77, and the sample variance is 33.4. The average age at marriage is 22.07 years, with a standard deviation of 4.53 and a range of 20.53 years. The mean age at conception is 30 years and 6.5 months, and the mean infertile period is 3 years and 7 months, as shown in Appendix A3. The age at marriage ranges between 20 and 40 years as indicated in Figure 6 below.

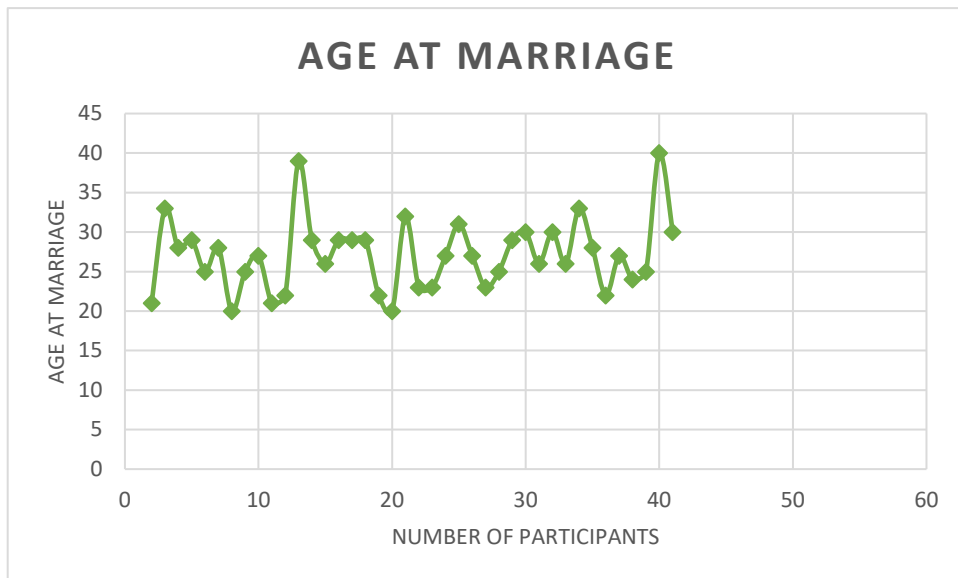
**Figure 5**

*Age of Patients*



**Figure 6**

*Age at Marriage*



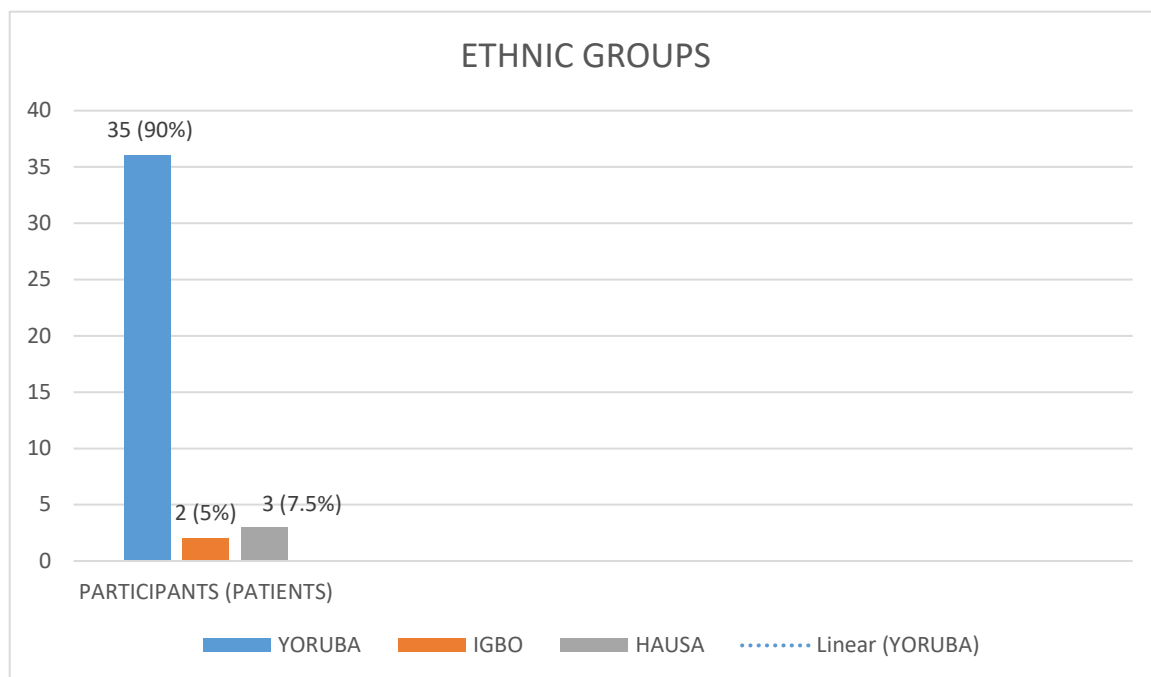
### ***Ethnic Groups***

Although Ibadan, the city where data collection takes place, is situated in the Western region of Nigeria, which the Yoruba-speaking ethnic group predominantly inhabits, this data includes information from the three main ethnic groups: Yoruba, Igbo, and Hausa.

The Yoruba population accounts for 35 (90%), while the Igbo and Hausa populations account for 3 (7.5%) and 2 (5%) of the total population respectively as shown in Figure 7 below.

**Figure 7**

*An Analysis of Ethnic Groups*



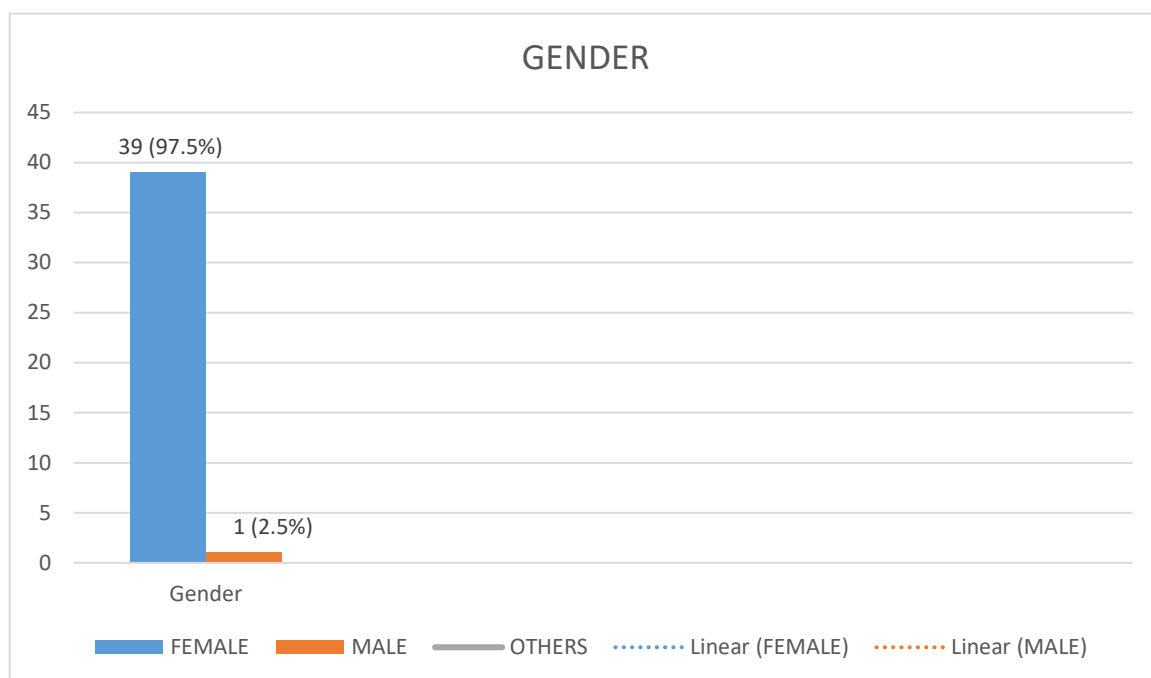
### ***Gender***

The study included 50 participants, with 41 females and 9 males. Among the 40 people who had previously experienced infertility and successfully conceived, 39 were women

(97.5%) and one was male (2.5%) male (Figure 8). The male participant was the only one in the patient cohort who accompanied his wife to the antenatal clinic and agreed to an interview.

**Figure 8**

*Comparison of Gender*

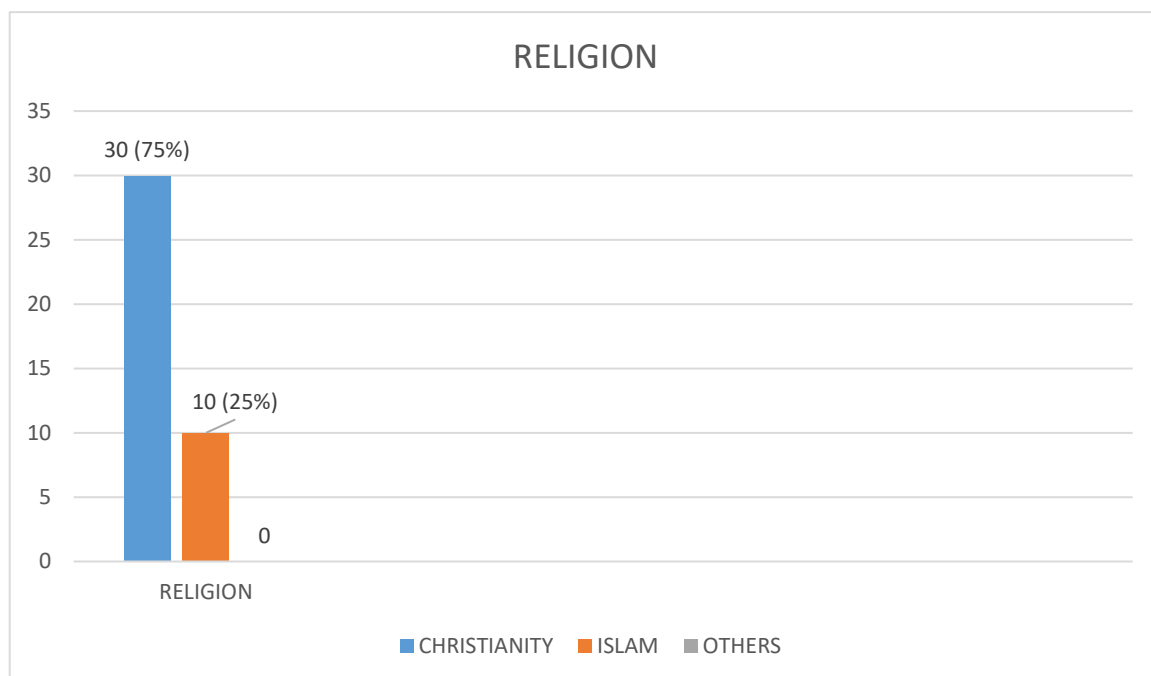


### ***Religion***

Most 30 (75%) of the interviewed patients identified as Christians, while 10 (25%) identified as Muslims. No participant belonged to any other religion other than Christianity or Islam (See Figure 9)

**Figure 9**

*Graph Depicting the Religious Affiliations of the Participating Patients*

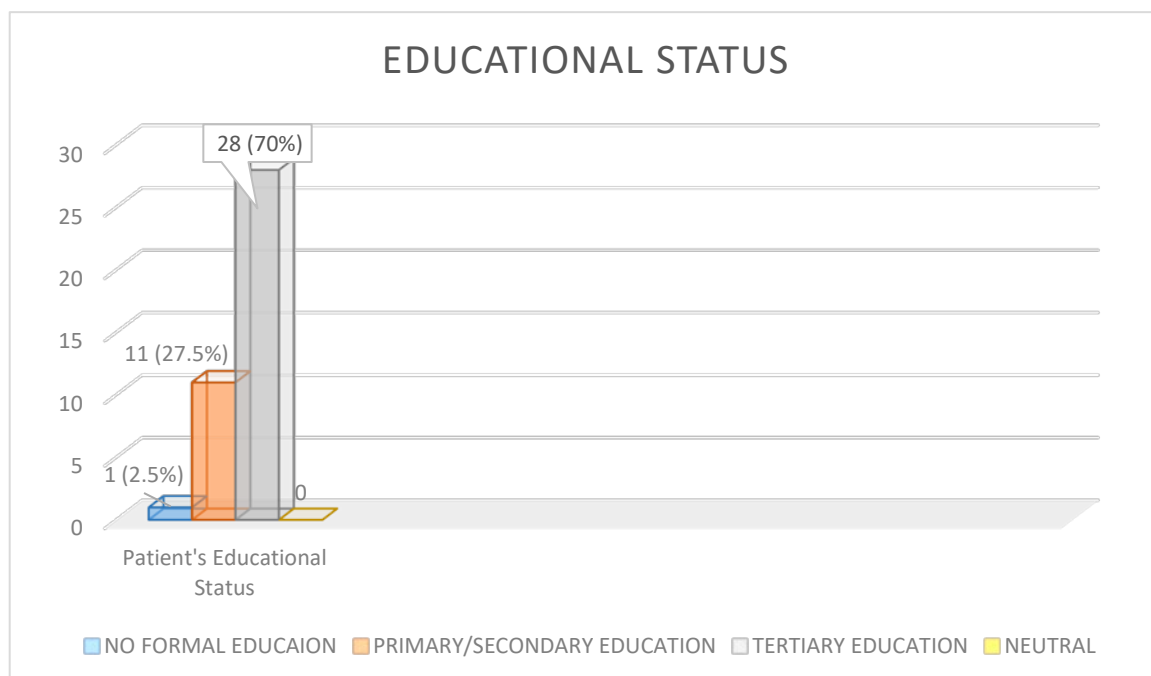


### ***Educational Status***

Out of the 40 patients, 28 (70.0%) had a tertiary education, 11 (27.5%) had a primary education, and only one patient 1 (2.5%) had no formal education (See Figure 10).

**Figure 10**

*A Graph Displaying the Participants' Educational Status*

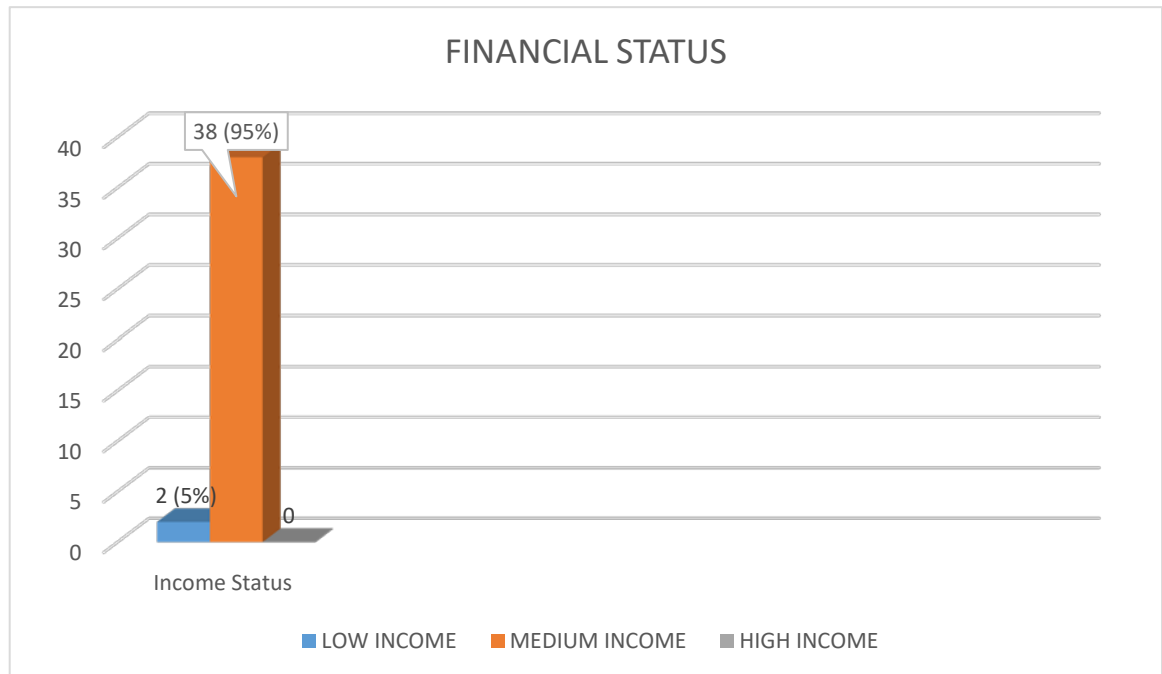


### ***Financial Status***

Most 38 (95%) of patients belong to the middle-income group, whereas a minority 2 (5%) belong to the low-income group. Not a single participant identifies themselves as belonging to a high-income group (See Figure 11).

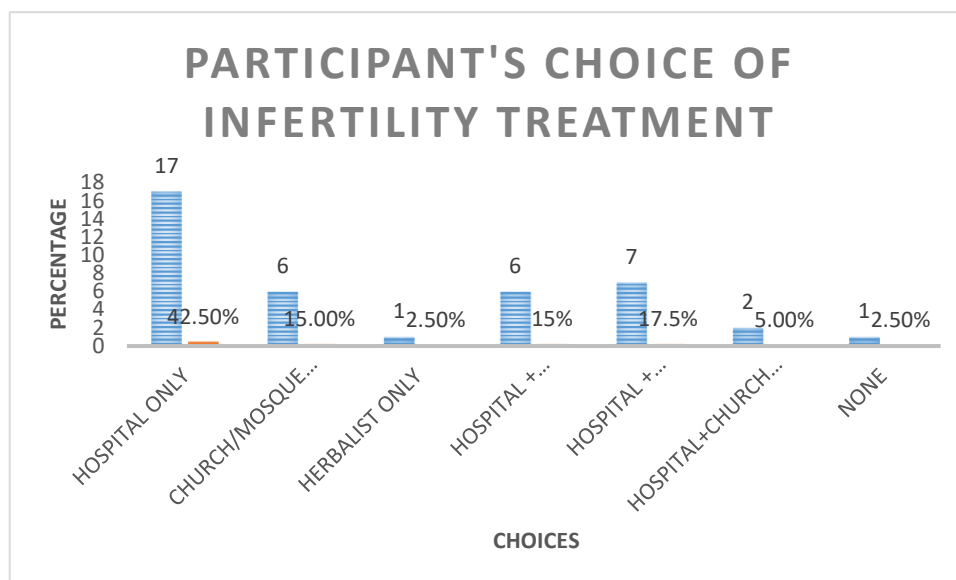
**Figure 11**

*Comparison of the Financial Status of the Patient's Participant*



### ***Participant's Choice of Treatment***

Figure 12 illustrates the selection of infertility treatments by participants. Seventeen participants, constituting 42.5%, selected a hospital for infertility treatment. Six individuals (15%) opted for spiritual treatment exclusively, whereas one individual (2.5%) consulted an herbalist without seeking specialist medical care. Some participants combined treatments, with 6 (15%) visiting both a hospital and seeking spiritual guidance from clerics. 7 (17.5%) integrate hospital treatment with traditional herbal remedies. Only 2 (5%) of the participants utilised all three treatment methods. One participant (2.5%) opted not to pursue any form of therapy and remained at home until she became pregnant.

**Figure 12***Participant's Choice of Infertility Treatment***Table 2***Choice of Treatment among the Participants*

VARIABLE	FREQUENCY (N)	PERCENT AGE (%)
HOSPITAL ONLY	17	42.5%
CHURCH/MOSQUE ONLY	6	15.0%
HERBALIST ONLY	1	2.5%
HOSPITAL +	6	15.0%
CHURCH/MOSQUE		
HOSPITAL + HERBALIST	7	17.5%
HOSPITAL+CHURCH/MOSQUE	2	5.0%
+HERBALIST		
NONE	1	2.5%
TOTAL	40	100%

**Table 3***Choice of Treatment Based on Religion*

	HOSPITAL	CHRISTIAN	MUSLIM	TOTAL
ONLY	HOSPITAL	12/30 (40%)	5/10 (50%)	17/40
ONLY	HOSPITAL			(42.5%)
ONLY	SPIRITUAL	3/30 (10%)	3/10 (30%)	6/40 (15%)
ONLY	HERBAL	1/30 (3.33%)	0/10 (0%)	1/40 (2.5%)
HERBAL	HOSPITAL+	5/30 (16.6%)	2/10 (20%)	7/40
HERBAL	HOSPITAL+			(17.5%)
SPIRITUAL	HOSPITAL+	6/30 (20%)	0/10 (0%)	6/40 (15%)
SPIRITUAL	HERBAL+	0/30 (0%)	0/10 (0%)	0/40 (0%)
ALL	ALL	1/30 (3.33%)	1/10 (10%)	2/40 (5%)
NONE	NONE	1/30 (3.33%)	0/10 (0%)	1/40 (2.5%)
		29/40	11/40	40 (100%)
		(72.5%)	(27.5%)	

### **Introduction to the Study's Reporting**

The transcribed data was subsequently imported into Atlas.ti 24, a software program specifically acquired to conduct the study analysis.

The documents for the fifty participants were uploaded. 481 quotations, 374 codes, and 71 memos were created. The codes were filtered based on the study's research objectives and conceptual framework until the themes and subthemes in Table 4 below were identified.

The four themes identified are psychological factors, sociocultural factors, medical and treatment factors, and personal values and preferences. These themes were derived from a thorough analysis of the data gathered from the study participants. Each theme represents a distinct aspect that helps to understand the overall impact of fertility health decisions and their psychosocial implications for couples. These themes provide a comprehensive overview of the various factors influencing fertility health decisions, emphasizing the complexities of the issue. By examining these themes, researchers can gain a better understanding of the challenges and motivations that couples face when making decisions about their fertility health.

Table 4 illustrates the thematic framework that supports this study, emphasizing the primary themes, associated subthemes, and the codes derived from the data. The themes were systematically refined through a thorough process of coding and categorization, ensuring that the structure reflected the comprehensive range and depth of participants' perspectives. The subthemes offer detailed insights, elucidating the intricate aspects of the overarching themes.

Furthermore, the figure includes illustrative codes that demonstrate how raw data were

transformed into meaningful categories, laying the groundwork for both the results and the subsequent discussion. The illustrative codes demonstrate transparency in the analytical process and enhance the credibility of the findings by directly linking interpretations to participants' voices. Themes, subthemes, and codes collectively constitute the analytical framework that directed the interpretation and discussion of the study's findings (See Table 4 below).

**Table 4**

*Refinement of the Primary Themes into Sub-themes through the use of Codes*

Themes	Subtheme	Codes	Illustrative Codes
<b>RQ1: Factors Influencing Treatment Decisions</b>			
<b>Emotional and Psychological factors</b>	Fear of Failure	Anxiety about treatment outcome, past failed attempts, loss of hope, sentiment and frustration about treatment outcomes.	<i>“Certain treatments, notably herbal remedies, proved to be damaging. They significantly impacted my body, causing me to feel weakened, while others provided beneficial effects. ( P 35, Female, 48 years)</i>
	Stress and Emotional Burden	Mental exhaustion, decision fatigue, emotional toll of procedures	<i>“I underwent tests, but they didn't identify any issues.” (P28, Female, 31 years)</i>
	Coping Mechanisms	Use of prayer, Hope in God, counselling, peer support, and avoidance	<i>“Prayer did the magic” (P37, Female, 30 years)</i>  <i>“Prayer is seen as the key to all solutions, and faith in</i>

			<i>God is strong. Some choose this path after unsuccessful medical tests or years of infertility". (Clergy 1, Female, 62 years)</i>
	Mental Health Challenges	Depression, Frustration, anxiety, suicidal ideation, low self-worth	<p><i>"I'd feel quite unhappy and even depressed as it would make me question my purpose in life". (P22, Female, 25 years)</i></p> <p><i>"This morning, one patient was crying. She informed me that she was going to commit suicide. So we had to counsel her..... So I introduced them to counsellors to assist them". (Fertility Specialist 3, Male, 56 years)</i></p>
<b>Socio-cultural Factors</b>	Stigma and Socio-judgement	Societal expectations, peer pressure, Being labelled "barren," gossip, and exclusion from family events	<i>"There are stigmas attached to those who are barren, so it leads to much depression and stress in society." (P32, female, 31 years)</i>
	Family Pressure and Expectations	Undue suspicion and Threats of divorce	<i>"There are pressures on men, particularly from in-laws. So, there is pressure from those in society because they begin to monitor you as early as your first year". (Fertility Specialist 3, Male, 56 years)</i>
	Religious and Spiritual beliefs	Belief in divine timing, faith	<i>"Couples opt for spiritual</i>

		healing, and prayer as an alternative	<i>intervention because they believe in the power of prayer and divine intervention. Prayer is seen as the key to all solutions, and faith in God is strong. Some choose this path after unsuccessful medical tests or years of infertility without prompt medical checkups, maintaining belief in God's ability to bless them with a child" (Clergy 1, Female, 62 years)</i>
<b>Medical and Treatment factors</b>	Perceived Ineffectiveness of Treatment	Doubt in success rates, lack of trust in medical treatment	<i>" I went to the hospital, but I didn't see any results. Later, I switched to herbal medicine for treatment, and the decision I made then was very helpful in the sense that I got pregnant after the treatment, and I thank God". (P33, Female, 34 years)</i>
	Side Effects and Physical Burden	Pain, hormonal changes, fatigue, invasive procedures	<i>Yes, "there are dangers in the tests." Like the X-ray of the womb (HSG), it was very painful. (P25, Female 29 years)</i>
	Access to Quality Care	Several hospitals with no specialists, Uncensored healthcare	<i>"I went to the hospital, I went to a native doctor, Alfa, pastors &amp; so on". (P38, Female, 35 years)</i>  <i>"I went to Alfa's place, and I also went to the hospital". (P39, Female, 46 years)</i>

	Cost and Financial Constraint	High treatment costs, lack of insurance, out-of-pocket expenses	<i>“Financial help for IVF or other treatments would have been greatly appreciated.” (P17, female, 32 years)</i>
	Medical Uncertainty and Diagnosis	Unexplained infertility, conflicting diagnoses, lack of clarity	<i>“I’m uncertain. Tests showed nothing wrong with me or my husband. I believe it’s not yet the right time according to God’s plan”(P19, Female, 30 years)</i>
<b>Personal Values and Preferences</b>	Religious and Cultural Belief	Men can’t be infertile, a Burden on women for natural conception.	<i>“Often, men are not as concerned about having children as women are. Women tend to be more active in seeking solutions to conceive “. ( Clergy 1, Female, 62 years)</i>
	Desire for Biological vs. Non-Biological Parenthood	Preference for a genetic child, openness to adoption or surrogacy	<i>“If we can’t conceive, we’re considering adoption. Love is what matters.” (P6, female, 29 years)</i>
	Autonomy and Shared Decision-Making	Couple agreement, individual agency, resistance to external pressure	<i>“I think my wishes should come first before society’s norm.” (P40, female, 33 years)</i>
	Timing and Life Stage Considerations	Age, career stability, and financial readiness	<i>“There is a direct relationship between age and conception. The odds of conception decrease as a patient’s age increases”. ( Fertility Specialist 4, Male, 62 years)</i>
	Acceptance and Letting Go	Deciding to stop treatment, embracing a child-free life	<i>“It will pain me a lot, and If I don’t later get pregnant, I will accept it as my fate”.(P35, Female, 48 years)</i>

<b>RQ2: Psycho-social experiences and Impact of Infertility</b>			
<b>Psychological Strain</b>	Grief and Loss	Feelings of emptiness, longing for children, a sense of incompleteness	<i>"I see it (not having children) as if I came into this life for nothing". (P4, Female, 30 years)</i>
	Anxiety and Depression	Worry about the future, Low mood, Sleep disturbances, Suicidal ideation	<i>"I couldn't sleep. I kept thinking, 'Will I ever hold my own baby?'" (P7, female, 40 years)</i>
	Identity and Self-worth	Feeling Less than, Loss of purpose and loss of hope	<i>"I'd feel quite unhappy and even depressed as it would make me question my purpose in life" (P22, female, 25 years old).</i>
<b>External and Socio- Cultural Factors</b>	Faith and Divine will (Spiritual gaze)	Belief in God's timing, prayer as coping, and acceptance of fate	<i>"I believe it's not yet the right time according to God's plan." (P19, female, 30 years)</i>
	Cultural Beliefs and Blame	Moral wrongdoing, gendered blame	<i>Friends supported me, but some family members attributed my struggles to fornication. It was challenging, but I'm grateful for the support". (P13, Female, 32 years)</i>
	Traditional Healing Practices	Use of herbs, Spiritual Consultation, Visits to Traditional Healers	<i>"They trust herbal treatments due to tradition". (Traditional Healer 2, Male, 44 years)</i>
	Blame and Resentment (Gendered Burden)	Mistrust, Infidelity suspicions	<i>"My husband used to say I should find a solution to my</i>

			<i>problem; he cannot come back home without seeing his children.” (P39, female, 46 years)</i>
	Strengthened Bonds	Mutual support, shared journey, increased empathy	<p><i>“My family helps me a lot, but the government didn’t render any help”. (P38, Female, 35 years)</i></p> <p><i>“My family was helpful and did their best. But the government didn’t do anything for me”. (P27, Female, 32 years)</i></p>
	Stigma and Social Exclusion	Being labelled “barren,” gossip, and avoidance	<i>“There are stigmas attached to those who are barren, so it leads to much depression and stress in society.” (P32, female, 31 years)</i>
	Religious and marital tension	Interfaith disapproval	<i>“They didn’t accept me because I married outside my faith.” (P40, female, 33 years)</i>
	Lack of government support	No public funding, Exclusion from the health insurance program	<i>“My family supported me, but the government wasn’t involved in my recovery.” (P2, female, 37 years)</i>
	Friends and Family-in-Law Pressure	Demands for children, blame and accusations	<i>“Friends supported me, but some family members attributed my struggles to fornication. It was challenging, but I’m grateful for the support”. (P13. Female, 32 years)</i>
	Assertion of Autonomy	Prioritizing self over societal	<i>“I think my wishes should come first before society’s</i>

		norms, resistance to pressure	<p><i>norm.” (P40, female, 33 years</i></p> <p><i>“I don't pay attention to people's opinions, only what is believed in heaven, as I believe in God”. (P10, Female, 35 years)</i></p>
<b>Medical Challenges and Perspectives</b>			
	Age and Biological Clock	Declining fertility with age, Urgency to conceive.	<i>“The odds of conception decrease as a patient's age increases.” (Fertility Specialist 4, male, 62 years)</i>
	Knowledge Gaps and Diagnostic Uncertainty	Unexplained infertility, limited awareness, spiritual attribution, and lack of information	<i>“I'm uncertain. Tests showed nothing wrong with me or my husband. I believe it's not yet the right time according to God's plan.” (P19, female, 30 years</i>
	Delayed help-seeking	<p>Waiting for natural conception, reliance on traditional methods,</p> <p>Waiting due to cost or misinformation, missed fertility window</p>	<p><i>I used herbs first before coming to the hospital.” (P18, female, 32 years)</i></p> <p><i>“Years of waiting due to financial constraints can reduce the chances of a successful conception.” (Implied across P19, P25, P39)</i></p>
<b>Personal Agency, Decision Making and Coping Mechanism</b>	Substance Use (Alcohol and Smoking)	Drinking as stress relief or a social habit	<p><i>“I used to drink alcohol before I got married, but I have stopped now.” (P39, female, 46 years)</i></p> <p><i>“I don't smoke, but I drink</i></p>

			<i>occasionally.” (P9, female, 36 years)</i>
	Health Risk and Lifestyle	Decreased fertility, Hormonal imbalance, and disease risk	<p><i>“Alcohol and cigarette smoking are so much associated with low fertility rates.” (Fertility Specialist 5, Male, 48 years)</i></p> <p><i>“These habits increase the risk of pelvic inflammatory diseases.” (Fertility Specialist 3, male, 56 years)</i></p>
	Behavioural change and Health awareness	Quitting substances, adopting a healthier lifestyle	<i>“I used to drink alcohol before I got married, but I have stopped now.” (P39, female, 46 years)</i>
	Maladaptive coping	Denial, Social withdrawal	<p><i>“It got to a stage where we decided that we were not going anywhere again”. ( P 8, Female, 26 years)</i></p> <p><i>I faced a lot of challenges... to the extent that I just stayed away from people”. (P4, Female,30 years)</i></p>
	Specialist warning on risk behaviour	Clinical concerns about lifestyle impacts, need for education	<i>“Poor conception rate is related to alcohol, cigarette smoking and obesity.” (Fertility Specialist 1, female, 44 years)</i>

### **Research Question 1**

The first research question seeks to investigate the factors influencing the treatment choices of infertile couples in Ibadan. The emerging themes include emotional and psychological factors, Social and cultural factors, Medical factors, Personal values and Preferences (Behavioural factors).

#### ***Theme 1: Emotional and Psychological Factors***

Participants acknowledged that the inability to conceive or bear children causes profound emotional distress, including pain, emptiness, frustration, and a loss of hope. These sentiments were consistently expressed in multiple interviews, demonstrating the profound psychological impact of infertility on personal identity and life purpose. As one participant articulated, "I would not be happy (if I didn't get pregnant) because I would see it as if I came into this life for nothing" (P4, female, 30 years). This existential framing emphasizes the close relationship between motherhood, self-worth, and meaning in life. Similarly, another participant stated, "I would feel pain if I'm unable to have children despite my best efforts" (P9, female, 36 years), emphasizing the emotional cost of perceived personal failure despite active participation in treatment. A third participant echoed this sentiment, expressing, "It would cause me great pain. It would be quite distressing for me" (P28, female, 31 years old), emphasizing the severity of emotional distress associated with unfulfilled reproductive desires. These firsthand accounts demonstrate that infertility is more than just a medical

condition; it is a deeply embodied and identity-shaping experience in which the lack of biological parenthood is viewed as a fundamental disruption to one's life narrative and social belonging.

Participants in this study consistently reported that infertility is closely associated with depression, as people struggle with intense feelings of sadness, hopelessness, and despair, especially when childbearing is not possible despite long-term efforts. These emotional experiences reflect the profound psychological burden of infertility, which goes beyond the physical condition and includes existential and relational dimensions. One participant poignantly expressed this emotional turmoil, stating, "I'd feel quite unhappy and even depressed as it would make me question my purpose in life" (P22, female, 25 years old). A traditional healer shared this sentiment, observing the severe psychosocial consequences of childlessness: "It's usually a sorrowful time for them; despite that, some people may want to end their lives" (Traditional Healer 2, male, 44 years). The risk of suicidal ideation in the context of infertility emphasizes the gravity of the psychological distress that affected people face.

Another participant elaborated on the broader relational implications of this emotional burden, noting that infertility could destabilize marital relationships: "It would be disheartening, potentially leading to depression and causing inner unrest, potentially affecting one's marriage and leading to divorce. It would be a challenging and emotionally difficult situation" (P7, female, 40 years old). These stories show how infertility is not only a personal problem, but also a social and familial one, with the potential to disrupt intimate relationships and social integration.

The principal researcher noted the participants' remarkable resilience and the pervasive sense of urgency associated with their desire for parenthood. This urgency was deeply ingrained in cultural and marital expectations, as several participants stated. One woman expressed the emotional significance of children in marriage: "I believe children are the joy of marriage, and I desire to build my own family" (P5, female, 27 years). For others, childbearing was perceived not merely as a personal aspiration but as a social obligation: "...Also, it feels almost obligatory after marriage to conceive or have children" (P21, female, 30 years). This normative pressure was reinforced by a participant who stated, "It is a must for someone to have children because I am at my husband's house" (P27, female, 32 years old), emphasizing the gendered expectations placed on women to reproduce after marriage.

In response to these emotional challenges, participants identified self-support and religion as important coping mechanisms. Religious faith, in particular, has emerged as an important source of psychological resilience, providing hope, meaning, and emotional regulation. Many participants relied on prayer, faith in God, and spiritual rituals to help them cope with their distress. A participant reiterated: "You see everything about marriage is in God's hands, God knows the time and season for each person to marry, and for each person to give birth (have children)" (P37, female, 30 years). Another person echoed the belief in divine timing, saying, "We just put our hope in God" (P16, female, 31 years). A third participant shared faith-based advice: "I will advise them to be prayerful and have faith in God because there is nothing God cannot do" (P38, female, 46 years old).

Some people combined spiritual practices with medical treatments, demonstrating a holistic

approach to healing. One woman described her combined strategy: "I went to see a gynaecologist, and I prayed. I did several tests, knowing my ovulation period, and underwent tests to check the uterus, but after that, nothing was coming. I wanted to accept my fate and have only one child, but God made it happen" (P25, female, 29 years old). Others used faith-based rituals, such as using Quranic water, as a form of spiritual coping: "(I was given) different things to use such as praying, (including) using Quranic water, and so on" (P24, female, 41 years old).

These accounts show that religious and spiritual practices are not passive forms of resignation, but rather active, deliberate strategies for emotional endurance and meaning-making. In an environment where medical solutions are frequently unavailable or unsuccessful, faith serves as an important psychological resource, allowing people to maintain hope and a sense of agency in the face of uncertainty.

## **Theme 2: Social and Cultural Factors**

Participants in this study identified a range of social and cultural factors that profoundly shape the psychological and relational experiences of infertility. These include societal stigma, familial support or neglect, governmental inaction, peer influence, and culturally embedded beliefs about age and reproduction.

The stigma associated with childlessness emerged as a significant source of psychological distress. Participant 32 described infertility as a condition laden with social judgment and emotional burden, stating:

I pray the Lord will not let us experience such, in Jesus' name. The reason is that there are stigmas attached to those who are barren, so it leads to much depression and stress in extended society. It can lead to high blood pressure, and the family, too, was waiting for someone to get pregnant or give birth (P32, female, 31 years).

This statement illustrates how infertility is not only a private struggle but a socially marked condition, linked to physical health risks and familial expectations.

Despite pervasive societal pressures, some participants asserted personal agency in resisting normative expectations. P8 stated: "It is normal to balance it (societal expectations), but my wishes come first before society" (P8, female, 26 years). Similarly, P40 emphasized autonomy in decision-making: "I think my wishes should come first before society's norms. I balance it by making my wishes to be first because everything works together for good" (P40, female, 33 years). These accounts reflect a growing assertion of individual values over collective norms, suggesting the emergence of a more agentic stance in navigating reproductive choices.

Peer influence during adolescence was also identified as a critical factor affecting long-term fertility outcomes. Participant 39 recounted how social pressure nearly led her to make a life-altering decision:

In my youth days, friends pressured me to consider abortion, questioning my ability to have children in the future. Despite the pressure, I refrained. Later, I became pregnant, facing delays for 3 years before subsequent pregnancies” (P39, female, 46 years).

This narrative highlights how reproductive health decisions made in adolescence under peer pressure, such as premarital abortion, can have enduring consequences, reinforcing the need for early, culturally relevant sexual health education.

The absence of government support was repeatedly cited as a structural barrier to accessing fertility care. Participants expressed frustration and disillusionment with state neglect. P19 stated: “Only my family supported me; the government didn’t contribute anything to my infertility treatment” (P19, female, 30 years). P27 echoed this sentiment: “My family was helpful and did their best. But the government didn’t do anything for me” (P27, female, 32 years). P21 provided a more detailed account of familial involvement contrasted with governmental inaction: “My family was very involved in my recovery. They offered assistance through prayers, provided herbal medicine, and encouraged me to stay healthy. However, the government didn’t provide any assistance, not before or after” (P21, female, 30 years). This systemic neglect was met with rhetorical disbelief by P25: “Yes, they (my family) helped with their prayers. Does the government even consider anyone? Did the government even think of someone? They did nothing at all” (P25, female, 29 years). In contrast, P14 described complete isolation: “I prayed at home. Neither the family nor the government rendered any help. It was only my husband and I who prayed before God answered us” (P14, female, 29 years), underscoring the vulnerability of those lacking both familial and institutional support.

Participants exhibited an understanding of the biological and social aspects of reproductive timing. Age is frequently cited as a critical factor in fertility, influenced by cultural and religious interpretations that shape perceptions of optimal childbearing years. P1 observed: “According to my religion (Islam), once a child starts menstruating, they are free to marry. But nowadays, ages 23 to 25 are considered good for childbearing” (P1, female, 26 years). P3 observed: “I believe it’s easier for women who marry and start having children early, say between ages 20–25. It’s generally more manageable for them regarding fertility issues compared to those giving birth later, around ages 30–35” (P3, female, 34 years). P34 and P36 affirmed the fertility advantages of early adulthood: “I think an age range from 25 to 30 years is fine, regardless of any situation that one may come across” (P34, female, 43 years); and “According to what I understand, a woman should be married when she’s 20 years old or older because that age group has a higher likelihood of getting pregnant quickly” (P36, female, 43 years).

Collectively, these narratives reveal that the experience of infertility is embedded in a complex socio-cultural matrix, where stigma, familial dynamics, state neglect, peer influence, and cultural beliefs about age and marriage all intersect to shape both emotional well-being and reproductive decision-making.

### **Theme 3: Medical and Treatment Factors in Infertility**

Medical and treatment-related considerations emerged as pivotal in shaping the fertility care choices of participants in Ibadan. These factors encompassed both the perceived efficacy of medical interventions and the structural challenges associated with accessing timely and accurate diagnoses. While medical treatment was often the first point of entry into

the fertility care system, its perceived ineffectiveness, particularly in the face of prolonged or inconclusive outcomes, frequently prompted a shift toward alternative modalities, including herbal and spiritual remedies.

Two participants, P11 and P33, exemplified this pattern of treatment cycling, reflecting a dynamic and iterative decision-making process rather than a linear progression. P11, a 31-year-old woman, described her transition from traditional to medical care: “Initially, I used herbs, but when that didn’t work, I went to the hospital” (P11, Female, 31 years). In contrast, P33, aged 34, reported a reversal of this trajectory, turning to herbal medicine after a perceived failure of hospital-based treatment:

I went to the hospital, but I didn’t see any results. Later, I switched to herbal medicine for treatment, and the decision I made then was helpful in the sense that I got pregnant after the treatment, and I thank God (P33, Female, 34 years).

These narratives underscore a critical insight: treatment decisions are not static but evolve in response to lived experiences of success or failure. The perceived ineffectiveness of medical treatment, whether due to misdiagnosis, delayed intervention, or lack of visible progress, functions as a catalyst for treatment diversification.

A significant barrier to informed decision-making, however, was the absence of a confirmed medical diagnosis. Participant 20, a 38-year-old woman, acknowledged her lack of engagement with formal healthcare services: “I haven’t been to the hospital, so I’m not sure about the cause (of my infertility)” (P20, Female, 38 years).

This lack of diagnostic clarity not only limits the ability to pursue targeted treatment but also increases vulnerability to misinformation and unregulated interventions. It reflects a

broader systemic issue: the inaccessibility of affordable, timely, and comprehensive fertility evaluations in public health facilities.

In response, both clinical and patient participants emphasized the importance of prioritizing medical evaluation. Fertility Specialist 5, a 48-year-old male reproductive endocrinologist, stressed the need for professional oversight:

“They should seek medical advice from a competent hand” (Fertility Specialist 5, Male, 48 years).

Similarly, P5, a 27-year-old woman, advocated for early medical intervention, particularly in cases involving structural conditions such as fibroids:

I advise seeking medical check-ups and for those dealing with fibroids, opting for medical treatments instead of herbal remedies. Additionally, I implore the government to offer support and treatments to those struggling with infertility, as it would greatly benefit many individuals undergoing similar challenges (P5, Female, 27 years).

Her statement highlights not only the clinical risks associated with delaying evidence-based care but also the socio-political dimensions of infertility, calling for institutional responsibility and policy-level intervention.

Collectively, these findings reveal that medical factors do not operate in isolation but are interpreted through a lens of personal experience, trust, and access. When medical care fails to deliver timely or tangible results, patients do not abandon rationality, they re-evaluate it, seeking alternative sources of efficacy and meaning. Thus, the decision to shift from medical to traditional or spiritual care is not a rejection of science, but a pragmatic recalibration in the face of unmet expectations.

#### **Theme 4: Personal Values and Preferences (Behavioural)**

This study demonstrates that decisions regarding fertility treatment are fundamentally influenced by personal values, life goals, and behavioural habits, in addition to structural and medical factors. These internal drivers, coded as a desire to start a family, a desire for legacy and replication, a love for children, and a need to have children, serve as core motivators that shape long-term reproductive decisions. Participants exhibited a robust sense of personal agency, actively reconciling external expectations with internal convictions rather than merely succumbing to social pressure.

P29, a 38-year-old woman, articulated this agency with clarity:

When it comes to having children, I have my own mind-set, which doesn't necessarily need to align with societal norms. Everybody has their desires, but God ultimately fulfils those desires..... My primary concern is my wish first" (P29, Female, 38 years).

This statement reflects a sophisticated form of value-based decision-making, where personal desire is acknowledged as a legitimate and central criterion in reproductive planning. It challenges the assumption that treatment choices are primarily driven by familial or societal coercion, instead positioning the individual as an intentional actor whose worldview and life goals serve as a compass.

Other participants further elaborated on the existential weight of parenthood. P26, a 25-year-old woman, linked her treatment decisions directly to emotional and relational aspirations:

“It is my love for kids and the desire to build a family (that influences my choices)”  
(P26, Female, 25 years).

For P27, a 32-year-old woman, the imperative to have children was framed within marital and cultural expectations:

“It is a must for someone to have children because I am at my husband’s house” (P27, Female, 32 years).

While P27's statement reflects the influence of social norms, it also demonstrates how personal identity intersects with marital role and social belonging. The phrase "because I am at my husband's house" denotes more than just compliance; it represents a self-negotiation within a relational and cultural framework in which motherhood is a prerequisite for full social integration.

These accounts demonstrate that personal values are not abstract ideals, but rather actionable beliefs that influence treatment selection, persistence, and resilience. The desire for legacy and replica, for example, is about more than just biological continuity; it is about ensuring that one's name, lineage, and presence live on after death, a theme that resonates with Freud's (1900) conceptualization of reproductive drives as extensions of the survival instinct and ego preservation.

Furthermore, the emphasis on personal preference reveals a complex interplay of autonomy and context. While acknowledging societal pressures, participants emphasized the importance of their own desires, frequently using spiritual language ("God ultimately fulfils those desires") to reconcile personal agency with divine will. This fusion of individual choice

and transcendent belief allows participants to view infertility as a purposeful journey guided by internal values rather than a passive fate.

## **Research Question 2**

### ***Theme 1: Psychological Strain and Coping Mechanisms***

Infertility in Ibadan is perceived not merely as a reproductive issue but as a significant psychological strain, marked by ongoing emotional turmoil, disruption of identity, and social exclusion. Participants consistently characterized their condition as involving profound psychological distress, expressing emotions of sorrow, anguish, frustration, void, and despair. These emotions were not fleeting responses but persistent states of existence, frequently characterized as chronic and pervasive.

P4, a 30-year-old woman, captured the existential weight of childlessness:

“I would not be happy because I would see it as if I came into this life for nothing”  
(P4, Female, 30 years).

This sentiment reflects a crisis of purpose, where the inability to conceive is perceived as a negation of one’s reason for existence. Similarly, P9 expressed the emotional toll of unfulfilled effort:

“I would feel pain if I’m unable to have children despite my best efforts” (P9, Female, 36 years).

P40 further illustrated the social dimension of this distress, highlighting the comparative anguish of witnessing peers, married before, after, or at the same time, successfully becoming mothers:

It was a very sad thing to my heart because those who are not even my age group, those who got married before me, and those who got married at the same age, all of them have given birth and have their children..... Whenever I think about it, I'm always very sad" (P40, Female, 35 years).

These experiences are rooted in a powerful desire for motherhood and lineage continuity. P4 linked motherhood to social recognition:

"I wish to experience motherhood, so they will use my child's name to call me" (P4, Female, 30 years).

P21 echoed this, framing reproduction as a post-marital obligation:

"I desire to have a legacy and a replica. It feels almost obligatory after marriage to conceive or have children" (P21, Female, 30 years).

The most prevalent and effective strategy was religious and spiritual coping, although some individuals relied on personal knowledge and self-reliance. Prayer, faith, and divine surrender constituted not passive resignations but rather active, deliberate responses to suffering.

P37 affirmed:

"Prayer did the magic" (P37, Female, 30 years).

P30 described a deliberate reliance on spiritual intervention:

“I solely relied on prayer, waiting for God’s intervention” (P30, Female, 29 years).

P36 expressed a defiant hope grounded in faith:

“I believe God will do it and I didn’t care about society’s norms” (P36, Female, 43 years).

Social support also played a critical role. P13, despite facing stigmatization from family members who attributed her infertility to moral failings, found strength in peer support:

“Friends supported me, but some family members attributed my struggles to fornication. It was challenging, but I’m grateful for the support” (P13, Female, 32 years).

This underscores the duality of social relationships, which can both cause harm and foster resilience, contingent upon the source and nature of interaction.

### ***Theme 2: Emotional Impact and Existential Distress***

The emotional consequences of infertility transcend clinical conceptions of depression or anxiety; they emerge as an existential crisis, a disruption of identity, relational stability, and life course. Participants described their emotional experiences in terms of inner unrest,

loss of hope, and fear of marital dissolution, underscoring the far-reaching consequences of unmet reproductive goals.

P7, a 40-year-old woman, articulated the cascading effects of infertility:

“It would be disheartening, potentially leading to depression and causing inner unrest, potentially affecting one’s marriage and leading to divorce. It would be a challenging and emotionally difficult situation” (P7, Female, 40 years).

This statement demonstrates how infertility is more than just a personal burden; it is a relational and social threat capable of destabilizing marriages and eroding self-esteem. The fear of divorce, especially in a society where women's status is frequently linked to fertility, exacerbates the emotional toll.

However, despite their emotional turmoil, participants demonstrated remarkable resilience through spiritual reframing. Rather than giving in to despair, many people reinterpreted their suffering as part of a divine plan, placing their trust in God's timing and sovereignty.

P10 expressed this theological resilience:

“Trust in God’s timing; only He can bring (give) children” (P10, Female, 35 years).

P16 affirmed marital unity and shared faith:

“My husband and I are fine; we just put our hope in God” (P16, Female, 31 years).

P17 offered a message of enduring hope:

“Trust in God, as there’s no late time for miracles” (P17, Female, 32 years).

These narratives reveal a powerful emotional counterforce: hope as resistance. In a context where biological time is often perceived as running out, faith functions as a temporal alternative, where “late” is not a medical diagnosis but a spiritual delay with redemptive potential. This reframing does not negate suffering but transcends it, allowing individuals to sustain psychological equilibrium in the face of uncertainty.

### *Theme 3: The Impact of Unexpected Outcomes*

The psychological journey of infertility is punctuated by unexpected outcomes, events that disrupt anticipated trajectories and reconfigure meaning, identity, and social status. These outcomes can be positive (e.g., unexpected conception) or negative (e.g., misdiagnosis, treatment complications), with each having significant emotional and social consequences.

Participant 37, who had not anticipated pregnancy, described her surprise with joy and gratitude:

“I never thought I would conceive, but one day I discovered I was pregnant. I cried and thanked God” (P37, Female, 30 years).

Although not explicitly mentioned in the initially collected data, the context analysis indicates that these unforeseen conceptions are frequently perceived not as biological anomalies but as divine miracles, thereby reinforcing faith and restoring social dignity. The element of surprise amplifies the emotional effect, converting enduring anguish into a tale of redemption.

Conversely, negative unexpected outcomes also shaped psychological experiences. P35, a 48-year-old woman, reported adverse effects from certain herbal remedies:

“Certain treatments, notably herbal remedies, proved to be damaging. They significantly impacted my body, causing me to feel weakened, while others provided beneficial effects” (P35, Female, 48 years).

This demonstrates the dual nature of alternative therapies: while certain participants achieved healing, others suffered iatrogenic harm, frequently devoid of regulatory supervision or medical counsel. The physical burden of these treatments exacerbates emotional anguish, especially when they do not yield results.

P7 highlighted the psychological burden of diagnostic uncertainty:

“I think the cause of my infertility was misdiagnosis. One doctor attributed it to the distance between my husband and me, while another doctor mentioned a different reason. It’s quite challenging to determine the exact cause sometimes” (P7, Female, 40 years).

Misdiagnosis promotes a sense of helplessness, confusion, and mistrust in the medical system, in addition to delaying effective treatment. It is a prime example of how the psychological toll of infertility is exacerbated by structural deficiencies in healthcare delivery.

Together, these themes reveal that the psychological and social experiences of infertility in Ibadan are not static but dynamic, shaped by a continuous interplay between suffering and resilience, loss and redemption, uncertainty and faith. The emotional impact is profound, often threatening identity and relational stability. Yet, participants do not passively

endure this burden; they actively construct meaning through spiritual belief, social support, and personal agency.

The coping mechanisms employed, particularly religious faith, function not as escapism but as meaning-making tools, enabling individuals to reframe infertility as a sacred journey rather than a personal failure. Unexpected outcomes, whether positive or negative, serve as pivotal moments that reconfigure self-perception and social belonging. A surprise pregnancy becomes a miracle; a misdiagnosis becomes a call for advocacy.

### **Research Questions 2a & 2b**

According to research questions 2a and 2b, “What is it like to struggle with infertility, and what are the barriers to making the best treatment decisions, and what are the perspectives of couples who are unable to conceive as a result of the treatment they have chosen?” Three overarching themes emerged: (1) Treatment-Related Barriers, (2) External and Social Pressures, and (3) Health and Coping Behaviours. These themes reflect participants’ lived experiences, challenges in accessing care, psychosocial stressors, and behavioural responses to infertility.

#### ***Theme 1: Treatment-Related Barriers***

A prominent theme among participants was the presence of significant structural and personal obstacles that hinder access to effective infertility treatment. These barriers include

financial constraints, lack of governmental support, age-related fertility decline, and limited knowledge about reproductive health.

*Financial Constraints and Absence of Government Support*

Participants consistently highlighted the high cost of fertility treatments and the absence of public funding or insurance coverage as major impediments. Many relied on familial support for both emotional and financial assistance, expressing frustration over the lack of institutional or governmental involvement in infertility care.

“My family supported me, but the government wasn’t involved in my recovery.” (P2, female, 37 years)

“Only my family supported me; the government didn’t contribute anything to my infertility treatment.” (P19, female, 30 years)

“My family was helpful and did their best. But the government didn’t do anything for me.” (P27, female, 32 years)

“My family helped me a lot, but the government didn’t help.” (P38, female, 35 years)

These narratives highlight a perceived deficiency in public health policy concerning reproductive care. Participants highlighted that government intervention, including partial financial coverage, could substantially reduce the financial burden of treatment costs.

Some people desire treatment or care for their infertility but lack the financial means to cover the expenses of tests or check-ups. “If the government could provide financial

assistance, like covering 50% of the expenses, it would be significant support for those in need during their infertility journey.” (P31, female, 42 years)

“Financial help for IVF or other treatments would have been greatly appreciated.”  
(P17, female, 32 years)

The absence of subsidized fertility services appears to disproportionately affect individuals from lower socioeconomic backgrounds, limiting equitable access to advanced reproductive technologies (ART).

#### *Age as a Determinant of Fertility Outcomes*

Age emerged as a critical biological and psychosocial factor influencing fertility outcomes. Both participants and fertility specialists emphasized that delayed childbearing reduces the likelihood of successful conception, particularly for women over the age of 35.

I believe it’s easier for women who marry and start having children early, say between ages 20–25. It’s generally more manageable for them regarding fertility issues compared to those giving birth later, around ages 30–35. (P3, female, 34 years)

“In my opinion, age 22–28 years is good.” (P6, female, 29 years)

Fertility specialists corroborated these views, highlighting the inverse relationship between age and reproductive success:

It [age] is intricately linked and directly related to conception. Age is a direct correlation factor, particularly among women. When considering age, the likelihood of having a high quality of life decreases. It is also relevant for people over the age of 35.” (Fertility Specialist 3, male, 56 years)

“I believe there is a direct relationship between age and conception. The odds of conception decrease as a patient’s age increases. This is frequently exacerbated by unhealthy

habits such as alcoholism, cigarette smoking, and obesity.” (Fertility Specialist 4, male, 62 years)

Delays in seeking treatment due to financial limitations or lack of awareness were noted as compounding factors that further diminish fertility potential over time.

#### *Knowledge Gaps and Diagnostic Uncertainty*

Several participants reported uncertainty about the causes of their infertility, reflecting broader gaps in reproductive health literacy. This lack of understanding often led to delayed treatment initiation and emotional distress.

“I’m uncertain. Tests showed nothing wrong with me or my husband. I believe it’s not yet the right time according to God’s plan.” (P19, female, 30 years)

“I don’t know why I am unable to conceive ('mi mo,' 'mi le so'), but I just know that I didn’t do anything bad.” (P25, female, 29 years)

“I don’t know the reason; I just couldn’t get pregnant.” (P39, female, 46 years)

Such statements indicate a reliance on spiritual or cultural explanations in the absence of clear medical diagnoses, potentially delaying evidence-based interventions. This underscores the need for improved patient education and accessible diagnostic services.

## *Theme 2: External and Social Pressures*

Infertility was frequently experienced not only as a medical condition but also as a source of intense social scrutiny and familial pressure. Stigma, societal expectations around parenthood, and intergenerational conflict were recurrent themes.

### *Societal Expectations and Peer Pressure*

Participants described facing pressure from peers and social networks to conform to normative timelines for marriage and childbearing. In some cases, this pressure extended to reproductive decisions, including abortion.

“In my youth days, friends pressured me to consider abortion, questioning my ability to have children in the future.” (P39, female, 46 years)

Despite these external pressures, some participants asserted agency in prioritizing personal desires over societal norms.

“I think my wishes should come first before society’s norm.” (P40, female, 33 years)

“It is normal to balance it, but my wishes come first before society.” (P8, female, 34 years)

These responses reflect a tension between individual autonomy and entrenched cultural expectations surrounding fertility and family formation.

*Stigma, Family Conflict, and Relationship Strain*

These narratives highlight a perceived deficiency in public health policy concerning reproductive care. Participants highlighted that government intervention, including partial financial coverage, could substantially reduce the financial burden of treatment costs.

“The reason is that there are stigmas attached to those who are barren, so it leads to much depression and stress in society.” (P32, female, 31 years)

Interpersonal relationships, especially within marital and extended family systems, were frequently strained. One participant reported experiencing conflict with her husband and in-laws, who placed the responsibility for the absence of children solely on her.

“I have negative experiences with my husband and my in-laws too because my husband used to say I should find a solution to my problem; he cannot come back home without seeing his children.” (P39, female, 46 years)

Religious and cultural differences further complicated familial acceptance, as illustrated by P40’s experience of marrying outside her faith tradition.

The negative experiences with my family were that they didn’t accept me at all. The reason was that they did not want me to marry the person I married. I came from a Muslim background, and I went to marry into a Christian family. The first man I married was a man of God (It didn’t work out). And when I got to the second man I married, there was a delay, like 2–3 years also. (P40, female, 33 years)

These narratives highlight how infertility intersects with broader sociocultural dynamics, including gender roles, religious identity, and kinship expectations, often resulting in relational conflict or even marital dissolution.

### ***Theme 3: Health and Coping Behaviours***

Participants' health behaviours, particularly substance use, were identified as both risk factors for infertility and potential coping mechanisms in response to emotional distress.

#### *Impact of Lifestyle Factors on Fertility*

Fertility specialists emphasized that modifiable lifestyle factors such as smoking, alcohol consumption, and obesity significantly impair reproductive health.

Alcohol and cigarette use have indirect effects. They exhibit risky behaviours and are more likely to contract sexually transmitted diseases, epididymitis, which affects sperm, and then HIV, AIDS, and tuberculosis. So, all of those behaviours increase the risk of pelvic inflammatory diseases, which is higher because of these habits. (Fertility Specialist 3, male, 56 years)

“Men nowadays suffer from environmental issues as a result of prolonged exposure to alcohol or cigarettes.” (Fertility Specialist 3, male, 56 years)

There is a significant relationship between age and conception rate, and lifestyle factors like alcohol abuse, cigarette smoking, and obesity can impact conception chances. It can cause a lower chance of conception. It is also a known factor that poor conception rate is related to alcohol, cigarette smoking and obesity.” (Fertility Specialist 1, female, 44 years)

“Alcohol and cigarette smoking are so much associated with low fertility rates.” (Fertility Specialist 5, female, 48 years)

These clinical perspectives align with existing medical literature on the detrimental effects of substance use on gamete quality and hormonal regulation.

*Substance Use as a Coping Mechanism*

While some participants acknowledged past alcohol use, many reported cessation or moderation, particularly after marriage or diagnosis of infertility.

“I used to club with my husband, but I don’t smoke.” (P35, female, 48 years)

“(I am an) occasional drinker but does not smoke.” (P9, female, 36 years)

“I used to drink alcohol before I got married, but I have stopped now.” (P39, female, 46 years)

However, fertility specialists cautioned that such behaviours, even when used socially or as stress relief, may perpetuate a harmful cycle by worsening fertility outcomes and complicating treatment efficacy. This suggests a need for integrated psychological and behavioural health support within fertility care settings.

The themes reveal that the experience of infertility is shaped by a complex interplay of structural barriers (e.g., cost, lack of policy support), sociocultural pressures (e.g., stigma, family expectations), and personal health behaviours (e.g., substance use, coping strategies). Age and delayed intervention further compound these challenges, particularly in the absence of timely education and accessible care.

## Research Question 2 ci

### *Theme 1: Medical Procedures and Interventions*

Fertility specialists in this study described the clinical journey of infertility treatment as a complex, multi-stage process requiring rigorous evaluation, advanced interventions, and ongoing psychological support. Central to their perspective was the belief that comprehensive diagnostic assessment is the cornerstone of effective care. Fertility Specialist 1, a 44-year-old female reproductive endocrinologist, emphasized that treatment must be preceded by thorough evaluation:

I believe that no patient should be treated without thorough therapy and evaluation. Evaluation is key to a successful outcome. Evaluation gives clarity and guidance to both the specialist and the couples. Evaluation helps them to navigate the fertility path seamlessly and effortlessly until a desired result is achieved. The patients need to be informed and involved in these evaluations before any treatment is given (Fertility Specialist 1, Female, 44 years).

This diagnostic phase typically includes ovulation monitoring, medical history review, hormonal profiling, and imaging studies, all aimed at identifying the underlying cause of infertility. Once diagnosed, couples may be offered a range of interventions, including intrauterine insemination (IUI), in vitro fertilisation (IVF), intracytoplasmic sperm injection (ICSI), sperm donation, and surgical correction of anatomical issues.

However, access to these technologies is uneven. While some facilities offer assisted reproductive technologies (ART), others, particularly public hospitals, are limited to basic treatments. Fertility Specialist 4, a 62-year-old male clinician, described the services available at the state hospital:

The state hospital provides basic treatments such as infection treatment, ovulation induction, and intrauterine insemination. We also provide surgical services to patients who require them. We also have psychotherapy and counselling units to address the needs of our patients” (Fertility Specialist 4, Male, 62 years).

In contrast, more advanced procedures like IVF and ICSI are often unavailable or unaffordable. Fertility Specialist 3, a 56-year-old male specialist, noted:

“However, there are currently no IVF, ICSI, or other facilities available here. However, for patients who arrive early, ovulation induction is a viable option” (Fertility Specialist 3, Male, 56 years).

This disparity underscores a critical treatment-related barrier: the lack of accessible, affordable, and geographically distributed fertility services, as corroborated by Peddie & Porter (2007). As a result, many couples delay care until later stages of life, when success rates are significantly reduced.

#### *The Role of Age and Timely Intervention*

Age emerged as a pivotal factor in fertility outcomes, with specialists unanimously affirming its direct correlation with conception likelihood. Fertility Specialist 3 stated:

It (Age) is intricately linked and directly related to conception. Age is a direct correlation factor, particularly among women. When considering age, the likelihood of having high-quality eggs and sperm decreases. It is also relevant for people over the age of 35” (Fertility Specialist 3, Male, 56 years).

Fertility Specialist 4, a 62-year-old male practitioner with 34 years of experience, echoed this:

“I believe there is a direct relationship between age and conception. The odds of conception decrease as a patient’s age increases. This is frequently exacerbated by unhealthy

habits such as alcoholism, cigarette smoking, and obesity” (Fertility Specialist 4, Male, 62 years).

Specialists expressed concern about the increasing number of older patients presenting for treatment, often after years of delay due to financial constraints, misinformation, or societal pressure to conceive naturally. Fertility Specialist 3 observed:

You’ll notice that some of them have only recently presented at the clinic in old age. We are currently having a lot of IVF at ages 50 and 60. Another issue is the lack of available alternatives. IVF wasn’t always like this (Fertility Specialist 3, Male, 56 years).

These delays not only reduce the chances of biological success but also increase the emotional and financial burden on couples.

#### *Psychotherapy and Emotional Support in Clinical Practice*

Recognizing the profound psychological toll of infertility, fertility specialists highlighted the importance of integrating mental health support into reproductive care. Fertility Specialist 1 affirmed:

To address these emotional challenges, our facility has employed counsellors who provide psychotherapy services. These professionals assist vulnerable patients, particularly those at risk of harming themselves, offering support and guidance during their infertility journey (Fertility Specialist 1, Female, 44 years).

Fertility Specialist 3 added:

“We have social workers. We counsel them. We help them by allaying their fears. And then, when they require surgery to overcome, we implement some supportive measures” (Fertility Specialist 3, Male, 56 years).

Counselling was particularly crucial in cases involving sensitive diagnoses such as azoospermia or unexplained infertility, where patients may struggle with disclosure, shame, or self-blame. As Fertility Specialist 2 noted:

“Counselling is the key. I have a patient who has azoospermia but refuses to disclose this to his wife” (Fertility Specialist 2, Male, 54 years).

This integration of psychological care reflects a growing recognition that fertility treatment is not solely a medical endeavour but a holistic process that must address emotional, relational, and existential dimensions.

### ***Theme 2: Cultural and Societal Influences***

Fertility specialists consistently identified cultural and societal pressures as among the most significant challenges faced by infertile couples, often surpassing medical and financial barriers in their psychological impact. These influences shape not only how infertility is perceived but also how individuals respond to diagnosis, treatment, and failure.

#### ***Gender Inequality and Social Stigma***

A recurring concern among specialists was the disproportionate burden placed on women, particularly in patriarchal contexts where reproductive capacity is tied to marital legitimacy and social worth. Fertility Specialist 3 articulated this starkly:

Women are most affected, particularly in African societies where the husband is the head and can make any decision. So, women are almost unheard of; they play second fiddle, which is a serious issue. These factors combine to cause women to experience a psychosocial problem. And we see a lot of suicides (Fertility Specialist 3, Male, 56 years).

He further elaborated on the external pressures exerted by in-laws and community members:

“There is pressure from those in society because they begin to monitor you as early as your first year” (Fertility Specialist 3, Male, 56 years).

This surveillance and stigma can lead to severe emotional distress. Fertility Specialist 3 shared a harrowing case:

This morning, one patient was crying. She informed me that she was going to commit suicide. So we had to counsel her. And that is why I must assist anyone with whom I come into contact. So I introduced them to counsellors to assist them. Now we reach a large number of women. So there have been many suicides (Fertility Specialist 3, Male, 56 years).

These accounts reveal that infertility is not merely a medical condition but a social crisis with life-threatening consequences.

### *Religious Beliefs and Coping Mechanisms*

Religion plays a dual role in the infertility experience: as a source of hope and resilience, and as a potential barrier to medical engagement. Fertility Specialist 1 observed:

Seeking solace, some individuals turn to prayer houses, herbalists, Imams, or Alfas for guidance. They may also seek counsel from neighbours and are often desperate for a solution, longing to conceive despite all odds (Fertility Specialist 1, Female, 44 years).

Fertility Specialist 3 confirmed:

“Those who believe that religion is the most important thing constitute the majority” (Fertility Specialist 3, Male, 56 years).

While faith can provide emotional strength, it may also lead to delays in seeking medical care or the acceptance of medically implausible outcomes. Fertility Specialist 5 recounted a case of apparent miraculous conception after a diagnosis of azoospermia:

A case in question where one pastor brought a couple to me. After investigating them, we found that the man was completely azoospermic. About three or four months later, the woman got pregnant. The pastor said it was the outcome of his prayers for them. And I said, bring the man back for a repeat semen qualitative analysis (to confirm the miracle). But we never saw them again (Fertility Specialist 5, Male, 48 years).

Similarly, Fertility Specialist 2 described cases of pseudo-pregnancy, a psychological condition where individuals believe they are pregnant despite medical evidence to the contrary:

“I have seen cases where some people say they are pregnant. And it’s a pseudo-pregnancy. And it’s at the point that we suggest they do a scan (Ultrasound). They say, no, I’m not doing a scan” (Fertility Specialist 2, Male, 54 years).

These phenomena highlight the powerful interplay between desire, belief, and denial in the face of infertility.

### *Changing Reproductive Norms and Intentional Childlessness*

Fertility specialists observed a trend towards reproductive autonomy, including intentional childlessness and alternative family structures. Fertility Specialist 2 noted:

“Some people are saying they don’t need to conceive. They can do surrogacy for them. They can adopt, and so on. So, we allow people to live their life” (Fertility Specialist 2, Male, 54 years).

Fertility Specialist 5 added:

But in today's world, we have people who, just for social reasons, especially the LGBTQs, or the lesbian, or the gay, just decide that they don't want to have children. They just want to enjoy their life. If that is what they have chosen, so be it. (Fertility Specialist 5, Male, 48 years).

This changing landscape is indicative of more extensive transformations in personal freedom, education, and gender roles. However, Fertility Specialist 2 advised that access to reproductive services remains restricted for a significant number of individuals, particularly young women who are pursuing education or careers, due to cultural norms and restrictive laws:

In the past, because of education, for example, let's talk about the girl child empowerment. People go to school, or they want to go and learn one trade or the other, and they discover that they are not allowed to get pregnant while they are undergoing that training, whether formal or informal (Fertility Specialist 2, Male, 54 years).

*Knowledge Gaps and Financial Constraints*

Despite growing awareness, specialists identified ignorance and financial inaccessibility as persistent barriers. Fertility Specialist 1 stated:

In my opinion, the basic problem with some of these patients consists of ignorance and a lack of financial resources. Most of them are not knowledgeable or educated enough to choose the right centre (hospital), and those who are educated might not have enough money to pay for the services of an expert" (Fertility Specialist 1, Female, 44 years).

Fertility Specialist 3 echoed this, advising patients to save through cooperatives:

"Some of them have gone through IVF; I advise them to approach co-operative banks and begin saving for IVF. Yes, a financial challenge is something that should be addressed" (Fertility Specialist 3, Male, 56 years).

*The Interwoven Realities of Medical and Social Challenges*

The fertility specialists' accounts reveal that infertility is not a singular challenge but a convergence of medical, financial, psychological, and cultural forces. While advanced treatments exist, their effectiveness is undermined by systemic inequities, delayed presentation, and socio-cultural stigma. The emotional burden is immense, often leading to depression, self-deception, and even suicidal ideation, particularly among women.

Yet, there are signs of change: growing awareness, increasing reproductive autonomy, and the integration of mental health into fertility care. To meet the needs of infertile couples, specialists advocate for a multidimensional approach, one that combines accessible medical services, financial support, public education, and culturally sensitive counselling. Only through such a holistic model can the complex challenges of infertility be addressed with both scientific rigour and human compassion.

**Research Question 2Cii**

***Theme: Traditional Healing Perspective***

Traditional healers in this study articulated a holistic, experiential, and culturally grounded understanding of infertility, positioning herbal medicine as a trusted and accessible modality for reproductive healing. For Herbalists 1 and 2, infertility is not merely a medical condition but a disruption of bodily balance, ancestral harmony, or spiritual well-being, one that can be addressed through the use of herbal remedies, ritual practices, and personalized care rooted in indigenous knowledge systems.

The primary intervention described by both traditional healers was the administration of plant-based treatments, often derived from leaves, roots, and barks, tailored to the individual's perceived condition. As Traditional Healer 2 explained:

“The main assistance we give them is herbs, and we also advise them to use it as prescribed” (Traditional Healer 2, Male, 44 years).

He further elaborated on the diversity of botanical sources:

“We use various herbal leaves for them, different types of traditional leaves” (Traditional Healer 2, Male, 44 years).

This emphasis on natural, locally available remedies reflects a broader cultural preference for treatments perceived as pure, non-invasive, and aligned with nature, qualities that contrast with the technological and often impersonal nature of medical interventions.

A key aspect of the traditional healing process is the management of expectations and the provision of hope. Traditional Healer 1 described how he reassures patients and establishes timelines for improvement:

We reassured patients that everything was fine after treatment. We give them timeframes and encourage them to undergo tests to monitor improvement. Most people always want to know how long it would take them to conceive, we would tell them that it won't take long. For example, for a man who has a low sperm count, after giving him some herbs, we would ask him to go and do the test to check the improvement (Traditional Healer 1, Male, 52 years).

This approach combines empirical observation (encouraging medical testing) with therapeutic optimism, reinforcing patient trust and engagement. The healers reported that many couples turn to traditional medicine not only due to cost or access barriers but because they perceive it as more comprehensive and emotionally supportive than clinical care.

Trust in traditional healing is deeply rooted in belief, not only in the efficacy of the herbs but in the healer's spiritual authority and divine mandate. As Traditional Healer 2 stated:

“They trust herbal treatments” (Traditional Healer 2, Male, 44 years).

Traditional Healer 1 expanded on this, highlighting the interplay between human agency and divine intervention:

“They believe in ‘our ability to help and in divine intervention’” (Traditional Healer 1, Male, 52 years).

This dual faith, both in the healer and in a higher power, serves as a powerful psychological anchor, offering comfort in the face of uncertainty and repeated medical failure.

Notably, both healers acknowledged the limits of their practice and expressed willingness to refer patients to medical specialists when progress stalled. Traditional Healer 1 stated:

“After a year of treatment here without improvement, I recommend a medical check-up for further steps” (Traditional Healer 1, Male, 52 years).

This contradicts the prevalent belief that traditional and medical systems are inherently antagonistic, indicating a pragmatic, integrative approach. Rather, these healers establish themselves as a component of a more comprehensive care framework, intervening when medical treatment may be ineffective and retreating when additional diagnosis is required.

However, both healers also acknowledged the informal and inherited nature of their training, lacking formal certification or standardized curricula. As Traditional Healer 2 explained:

“I inherited the knowledge from my father” (Traditional Healer 2, Male, 44 years).

Similarly, Traditional Healer 1 noted:

“I learned this work from my father and continued after his time” (Traditional Healer 1, Male, 52 years).

While this lineage-based knowledge transmission ensures cultural continuity, it also raises questions about consistency, safety, and accountability, issues that warrant greater dialogue between traditional practitioners and public health authorities.

### **Research Question 2Ciii**

#### ***Theme: Religious and Spiritual Perspectives (Spiritual Gaze)***

Clergymen and women in this study described infertility as a profound spiritual trial, one that tests faith, patience, and trust in divine timing. Their narratives reveal a deeply theological framework through which infertility is interpreted, managed, and ultimately transcended. For these religious leaders, prayer, faith, and communal support are not ancillary coping mechanisms but central pillars of healing.

Clergy 1, a 62-year-old female pastor, affirmed the centrality of prayer in the fertility journey:

“Prayer is seen as the key to all solutions, and faith in God is strong. Some choose this path after unsuccessful medical tests or years of infertility” (Clergy 1, Female, 62 years).

Clergy 3, a 54-year-old male minister, echoed this sentiment:

“Couples believe in divine intervention and see faith as a source of comfort” (Clergy 3, Male, 54 years).

These beliefs are institutionalized through structured spiritual programmes. Clergy 1 described a weekly prayer initiative for infertile couples:

There’s a special program organized in the church for those who are yet to conceive or have any infertility concerns. This program takes place on Mondays within the church premises. It aims to counsel, pray, advise, and educate individuals more about infertility, emphasizing that it is not the end of the world (Clergy 1, Female, 62 years).

The congregation includes married individuals across a wide age range:

“Married people of various ages seek prayer and solutions, ranging from 35 years to 50 years, and sometimes couples aged 50 and above” (Clergy 1, Female, 62 years).

This reflects the enduring hope for conception, even in advanced reproductive years, sustained by the belief that “with God, all things are possible.”

#### *Faith as a Coping Mechanism*

Religious coping, defined as trusting God’s timing and surrendering outcomes to divine will, was consistently presented as a source of peace and resilience. Clergy 2, a 48-year-old male pastor, encouraged patience:

“God knows the timing for everyone to have children. Trust that there’s nothing God cannot do” (Clergy 2, Male, 48 years).

Clergy 3 reinforced the role of belief in shaping outcomes:

“For those who haven’t seen results, they should continue praying. Faith plays a crucial role, and God’s response varies based on an individual’s belief” (Clergy 3, Male, 54 years).

This emphasis on faith does not negate emotional pain. Clergy 1 acknowledged that some individuals experience depression when prayers go unanswered:

“Some patients may feel depressed, but we emphasize faith in God and provide support within the church community” (Clergy 1, Female, 62 years).

Yet, rather than advising despair or separation, the church offers relational preservation:

“We never advise them to divorce; instead, we reassure them that the Lord will handle it” (Clergy 1, Female, 62 years).

This stance is critical in a context where infertility often leads to marital breakdown, polygamy, or social ostracisation.

#### *Integration of Faith and Medicine*

Contrary to the perception that religious leaders oppose medical care, all three clergymen and women endorsed medical evaluation as part of God’s plan for healing. Clergy 1 stated:

“Seeking medical check-ups is essential for a clear understanding of their situation” (Clergy 1, Female, 62 years).

Clergy 2 advised:

“I would advise them to go for a medical check-up at a reliable hospital” (Clergy 2, Male, 48 years).

He also recommended adoption in cases of irreversible infertility:

“I advise them to get medical check-ups and suggest considering adoption if necessary, especially in cases where the husband’s sperm cannot produce a child” (Clergy 2, Male, 48 years).

Clergy 3 advocated for a synergistic approach:

“Keep praying and have faith. Listen to medical advice from doctors and pastors. I believe God will answer their prayers if they follow this guidance” (Clergy 3, Male, 54 years).

This integrative perspective, where prayer and medicine coexist, challenges binary narratives that frame faith and science as mutually exclusive. Instead, it reflects a pragmatic spirituality that honours both divine agency and human expertise.

### *Gender Dynamics in Spiritual Engagement*

Clergy 1 observed a pronounced gender disparity in participation:

“Often, men are not as concerned about having children as women are. Women tend to be more active in seeking solutions to conceive” (Clergy 1, Female, 62 years).

She noted:

Typically, it’s the woman who is more present during the infertile period. It’s rare for either partners or only the man to attend unless there are specific challenges they are praying for at the church” (Clergy 1, Female, 62 years).

This reflects broader gendered expectations in reproductive responsibility, where women bear the emotional and spiritual burden of childlessness, even within faith communities.

### **Toward an Integrated Understanding of Non-Medical Infertility Care**

The narratives of traditional healers and clerics indicate that non-medical approaches to infertility are not peripheral or illogical alternatives; rather, they represent culturally coherent systems of meaning, healing, and support. Both groups serve as custodians of hope, providing emotional reassurance, spiritual validation, and practical guidance amid reproductive uncertainty.

Traditional healers prioritize physical restoration via herbal remedies, whereas clerics highlight spiritual renewal through prayer and faith. Both approaches emphasize the importance of patient trust, emotional support, and collaboration with medical systems as needed. Their practices illustrate a diverse healthcare environment where individuals engage with various systems not due to a lack of understanding, but in pursuit of comprehensive, culturally relevant solutions.

The findings highlight the necessity for a more inclusive reproductive health framework that acknowledges traditional and spiritual care as valid elements of fertility support, while promoting dialogue, regulation, and integration. Policymakers and clinicians should consider these systems as collaborators rather than competitors to biomedicine in

addressing the complex realities of infertility in Nigeria. Collaboration is essential for achieving patient-centred and culturally responsive care.

## **Evaluation of findings**

### ***Research Question 1***

This question focusses on the decision-making process for infertility treatments. This study found that 42.5% of participants selected exclusively medical options, whereas 57.2% pursued alternative choices. This finding addresses research question 1, illustrating that fertility choices are influenced by a complex interplay of Emotional and Psychological Factors, Social and Cultural Factors, Medical and Treatment Factors, and Personal Values and Preferences, which constitute the five drivers of decision-making identified in this project.

Some participants perceive infertility through a medical lens necessitating treatment (disease framework), while others interpret it as a matter of destiny or a component of their life journey (non-disease framework). These orientations are intricately influenced by their beliefs, which in turn determine the decisions to pursue medical treatment. In alignment with decision-making frameworks, these viewpoints were shaped by perceived social stigma and the aspiration for spontaneous conception, rather than solely by clinical criteria.

The findings align with the literature review by Jones et al. (2018), which indicated that reproductive treatments, particularly ARTs can impose emotional strain on couples

already in a vulnerable situation due to their limited control over the outcomes. This perspective, along with the associated risks and ethical discussions regarding new reproductive technologies, represents a significant drawback in the decision-making process for treatment among couples.

Kaya and Oskay (2020) indicate that the stigma and cultural beliefs associated with infertility can lead to significant stress and anxiety for many couples. In certain cultures, infertility is perceived as a source of shame or a curse (MacLennan, 2021), which results in couples avoiding appropriate assistance and opting for alternative solutions that maintain their privacy.

Conversely, 42.5% of participants who selected medical options expressed confidence in their efficacy based on evaluation, diagnosis, and treatment. This perspective is endorsed by Makar & Toth (2002), Kuohung & Ornstein (2016), McLaren (2012), and Pathak et al. (2020), all of whom assert that infertile couples pursue evaluations to identify the underlying causes of their infertility. This evaluation, as noted by Pierik et al. (2000) and Pei (2022), offers critical insights into the causes of infertility, enabling couples to make informed choices about fertility treatment options. Analysis and Synthesis of Treatment Options in Line with Research Question 1

In general, the data on participants' treatment choices sheds critical empirical light on this question, revealing not only the variety of paths taken but also the complex interplay of medical, spiritual, and traditional systems that influence decision-making in Ibadan, Nigeria. Of the 40 previously infertile people surveyed, treatment options were spread across five

modalities: medical, spiritual, traditional, or combinations of the three, demonstrating that fertility care is rarely approached in a single, linear manner. Instead, the findings show a pluralistic, pragmatic, and frequently sequential engagement with multiple healing paradigms, influenced by a variety of psychosocial, cultural, economic, and experiential factors.

The most common treatment pathway was hospital-based care alone, which 17 participants (42.5%) chose, indicating a high level of trust in medical fertility services. This preference is consistent with increased access to reproductive technologies, awareness of clinical diagnostics, and the perception of hospital settings as authoritative spaces for medical intervention. However, this does not imply a rejection of other systems. Rather, the data show that medicine serves as the central anchor in most fertility journeys: even for those who included spiritual or traditional healing, the hospital remained the primary or initial point of contact. For example, 6 participants (15.0%) combined hospital care with church or mosque-based interventions, 7 (17.5%) integrated hospital and herbalist services, and 2 (5.0%) used all three at the same time. Overall, 72.5% of participants used the formal healthcare system in conjunction with at least one non-medical modality, demonstrating the integrative nature of their decision-making.

This integrative pattern challenges the idea of mutually exclusive treatment systems in favour of a strategic, layered approach to fertility management in which medical care addresses diagnostic and technical needs, spiritual practices provide emotional solace and existential meaning, and traditional healing provides culturally familiar remedies and perceived holistic restoration. Beliefs in divine intervention, prayer as a source of hope, and communal support in times of suffering frequently motivated the decision to attend church or mosque (chosen by

6 participants exclusively and 8 in combination with other modalities). Participants described faith-based settings as places where they could reclaim agency, cope with treatment failure, and maintain hope in the face of uncertainty, all of which have a significant impact on persistence in the fertility journey.

The limited but significant use of herbalists, with only one participant using a herbalist exclusively and nine engaging with herbalists in conjunction with other systems, suggests that, while traditional medicine is not the dominant first-line option, it remains a resilient and culturally embedded component of care. Prior unsuccessful medical treatments, concerns about the cost of assisted reproductive technologies, or recommendations from family members and community networks all contributed to the decision to consult a herbalist. The low percentage of herbalist-only use (2.5%) may also reflect increased medicalization of fertility care and growing awareness of the risks associated with unregulated treatments. However, its inclusion in combined pathways emphasizes its role as a complementary strategy, especially when medical solutions appear inaccessible or ineffective.

One participant reported not seeking any treatment at all, a rare but significant case that highlights the impact of extreme stigma, financial constraints, or psychological resignation, all of which can discourage engagement with any health-care system. This emphasizes the importance of understanding the structural and emotional barriers that prevent people from entering fertility paths, such as poverty, a lack of education, gendered shame, and fatalistic beliefs about fate.

All these findings show that treatment decisions are the result of a dynamic negotiation

between perceived efficacy, cultural legitimacy, emotional comfort, economic feasibility, and social expectation. The prevalence of hospital-based care reflects faith in scientific medicine, but its frequent integration with spiritual and traditional systems demonstrates the limitations of a purely medical model in addressing the existential and emotional dimensions of infertility. Participants do not simply choose between systems; they strategically navigate and integrate them in ways that maximize hope, minimize risk, and are consistent with personal and cultural values.

In response to Research Question 1, it is clear that the key factors influencing treatment decisions include: (1) the perceived reliability and diagnostic capacity of hospitals, (2) the emotional and spiritual reassurance offered by religious institutions, (3) the cultural continuity and familial endorsement associated with traditional healing, (4) economic constraints that limit access to prolonged or expensive medical treatments, and (5) the psychosocial burden of stigma, which drives individuals toward discreet or morally sanctioned forms of care. These factors do not operate independently, but rather within a larger sociocultural ecosystem in which reproduction is inextricably linked to identity, morality, and social belonging.

Finally, participants' treatment choices reflect a resilient, adaptive, and meaning-making response to a highly disruptive life experience. Individuals, rather than being passive recipients of care, actively create personalized pathways that combine rationality with faith, science with tradition, and individual agency with collective wisdom. This complexity necessitates a reimagining of fertility care as inherently pluralistic (Van Ballen & Gerrits, 2001), as well as healthcare policies and clinical practices that recognize, respect, and integrate the various systems on which people rely in their quest for parenthood.

The study identified four interconnected domains influencing fertility care decision-making, derived from comprehensive narratives of 40 previously infertile individuals and ten care providers in Ibadan, Nigeria: emotional and psychological factors, social and cultural factors, medical and treatment factors, and personal values and preferences. Each domain operates in dynamic interplay, influencing how people perceive their condition, evaluate treatment options, and navigate the complex journey to parenthood. The following is a detailed, interpretive exploration of each theme, followed by a fusion of how these factors interact to influence decision-making.

### *Emotional and psychological factors*

According to this study, infertility evokes a range of emotions, including sadness, frustration, emptiness, and pain. The majority of participants reported developing emotional coping mechanisms, such as seeking assistance from loved ones or engaging in self-care practices, despite the difficulty of the infertility challenge.

This is in keeping with Fido & Zahid (2004), who stated that emotionally, coping with infertility can be extremely challenging for a person, and Alesi (2005) also confirmed that some individuals' inability to conceive or carry a pregnancy to term can induce feelings of sadness, guilt, and even depression.

The significance of family support in developing life-saving coping mechanisms cannot be underestimated, as indicated by the participants. This aligns with the focus on social support as an essential coping mechanism for couples experiencing infertility, as affirmed by several infertility researchers such as Callan & Hennessey (1989), Fleming & Burry (1988), and Fido & Zahid (2004).

The emotional and psychological landscape of infertility is critical for treatment decision-making. Participants consistently described their fertility journey as a profound emotional ordeal marked by pain, emptiness, and frustration, and hopelessness, experiences exacerbated not only by inability to conceive but also by repeated treatment failures, social exclusion, and internalized stigma (see figure 14). These emotional states serve as both barriers and motivators: despair can result in withdrawal or resignation, but it can also spark a desperate search for alternative solutions.

Sentiment, or a strong emotional attachment to the concept of parenthood, is an important psychological driver. This sentiment is closely related to love for children, a desire for children, and a desire to start a family, all of which reflect a basic human desire for connection, continuity, and nurturing (Beyeza-Kashesya, 2010). For many people, this desire goes beyond biological function and becomes an essential component of identity and self-worth. The phrase "a must to have children" was used several times, implying that childbearing is not just a preference, but a perceived existential imperative.

In response to emotional distress, participants used a variety of coping mechanisms. A minority of participants reported self-support through journaling, reflection, or internal resilience, but the majority relied on religious and spiritual coping as their primary strategy. Concepts like hope in God, faith in God, and accepting fate were not passive resignations, but rather active frameworks for making meaning. Prayer, fasting, and pilgrimage to faith-based healing centres were described as sources of emotional sustenance that helped couples overcome medical setbacks and persevere. As one participant put it, "When the hospital said there was no solution, I turned to God; He is the giver of life." This spiritual reframing elevates

infertility from a medical failure to a test of faith, preserving hope even in the face of medical uncertainty.

The relationship with one's partner also played an important role. Some couples reported stronger bonds as a result of shared struggle, while others described marital strain, blame, and emotional disconnection. The quality of the partnership had a direct impact on decision-making: supportive partners encouraged continued treatment, whereas conflict or secrecy resulted in unilateral choices, often in isolation. The desire for legacy and replica, to pass on one's name, genes, or likeness, heightened emotional investment, particularly among men, though it was often unspoken due to cultural norms.

Finally, emotional and psychological factors not only support but also shape the fertility journey. Decisions to switch providers, combine treatments, or persevere despite failure are frequently motivated not by clinical logic, but by a desire to manage emotional pain, maintain hope, and reclaim a sense of agency.

The flowchart in Figure 13 encapsulates the emotional, social, and religious ramifications of infertility on couples experiencing infertility. As shown in Figure 13, this study found that the most common emotional consequences of infertility are pain, frustration, emptiness, sadness, indifference, and loss of hope. Furthermore, the study found that these emotional consequences can have a significant impact on people's mental health and well-being. Healthcare providers must address these emotions and provide appropriate support to people experiencing infertility. Conversely, participants agreed that religion and spirituality



### *Socio-cultural factors*

The data indicates that sociocultural factors such as the age at which participants get married fall within the range of 20 to 39 years, while the age at which conception occurs falls within the range of 23 to 41 years. The current ages of the participants are 25 and 48 years. .

Based on this study, the age at which someone gets married does not have an impact on the duration of infertility. For instance, one participant who married at the age of 20 experienced 20 years of infertility before conceiving, while another participant who married at the age of 41 only had to wait for 2 years before achieving a natural conception. Nevertheless, the duration of infertility varies significantly, spanning 19 years, with an average waiting period of 3.725 years before the first conception. This is a lengthy waiting period that has a variety of effects on the psychosocial status of couples, including their emotional health, social standing, and relational health.

Furthermore, findings indicate that age affects the fertility treatment options available, as women's reproductive capacity diminishes with advancing age. Participants consistently agree on the concept of the optimal age for marriage, as demonstrated by their endorsement of early marriages. A similar perspective is held by Moridi et al. (2019), who assert that the likelihood of natural conception declines considerably for both men and women as they age. Brandt, Cruz Ithier, Rosen, & Ashkinadze (2019) hold the same opinion, positing that the prevalence of infertility increases with age.

Most of the patients interviewed were female, accounting for 39 (97.5%) of the sample, while males comprised only 1 (2.5%) (See figure 8). Given that the patients were

interviewed at the ante-natal clinics, 39 (97.5%) of husbands do not accompany their wives to ante-natal clinics during pregnancy.

In this study, peer pressure and advice were identified as significant sociocultural influences on a couple's decision-making process. According to this study, some adolescents make poor reproductive health decisions, such as early sexual exposure and abortion, which can have long-term implications for their fertility status. The impact of peer pressure on infertility has not been well documented in the literature; instead, Grunberg (2021), Lin and Shorey (2023), and O'Connell (2021) have emphasised peer and group support. This association thus constitutes a novel contribution to the body of knowledge regarding the determinants influencing decisions regarding fertility treatment.

The majority of participants in this study stated that societal norms and pressures related to parenthood and familial responsibilities can exacerbate emotions, particularly in societies that place a high value on fertility. Loneliness and isolation among infertile couples cause a great deal of distress and depression. According to Jirka et al. (1996), prolonged isolation can lead to depression, anxiety, low self-esteem, and difficulty concentrating. However, the majority of participants choose to ignore societal expectations and instead focus on their own wishes and desires.

Participants have stated that the lack of government support is an additional social factor influencing their treatment decisions. The government's lack of interest in infertility is consistent with the global population control agenda. Ezeh et al. (2012) state that governments and society are grappling with managing the world's unsustainable population growth, including ensuring food security (Prosekov & Ivanova, 2018) and managing access to

resources like water and energy (Vlotman & Ballard, 2014), among other challenges. The outcome of the study thus corresponds with the authors referenced earlier. Nonetheless, the majority of participants acknowledged their family's positive influence in helping them overcome infertility.

In Ibadan, infertility is not experienced in isolation; it is deeply embedded in a web of social expectations, cultural norms, and structural inequities that have a significant impact on treatment decisions. Societal expectations, particularly the expectation that marriage must result in children, place enormous pressure on couples, particularly women, to find solutions at any cost. Childlessness is frequently perceived as a moral or spiritual flaw, resulting in gossip, ridicule, and social exclusion. This stigma fuels peer pressure, as people compare their progress to others and feel compelled to show effort, even if the treatments are ineffective or costly.

Discretion emerged as a key strategy for dealing with stigma. Many participants delayed or concealed treatment for fear of public scrutiny, preferring to visit private clinics or healers discreetly. This secrecy, while protective, frequently delays access to timely care and limits social support. Age-related issues add to the pressure, as older women experience increased anxiety about declining fertility and societal judgement of "late" motherhood.

Economic and structural factors are inextricably linked with the social context. Financial standing was repeatedly mentioned as a deciding factor in treatment selection. Medical interventions, such as IVF, are prohibitively expensive, leading many people to seek out less expensive, but unregulated, alternatives such as herbalists or prayer camps. Participants

expressed frustration with the lack of subsidized fertility services and public awareness campaigns. The healthcare system is viewed as underfunded and inaccessible, increasing reliance on informal sectors.

Education and educational status also influenced decision-making, albeit not always in predictable ways. Higher education was associated with increased health literacy and earlier engagement with medical care, but it did not preclude the use of spiritual or traditional healing. Instead, educated people frequently practiced strategic pluralism, combining medical advice with faith-based practices to increase perceived chances of success. Advice from family, friends, and community elders, particularly those who had "successfully" overcome infertility, was extremely influential, often overriding clinical recommendations. This reflects the communal nature of decision-making, in which fertility is considered a collective family concern rather than a private medical issue.

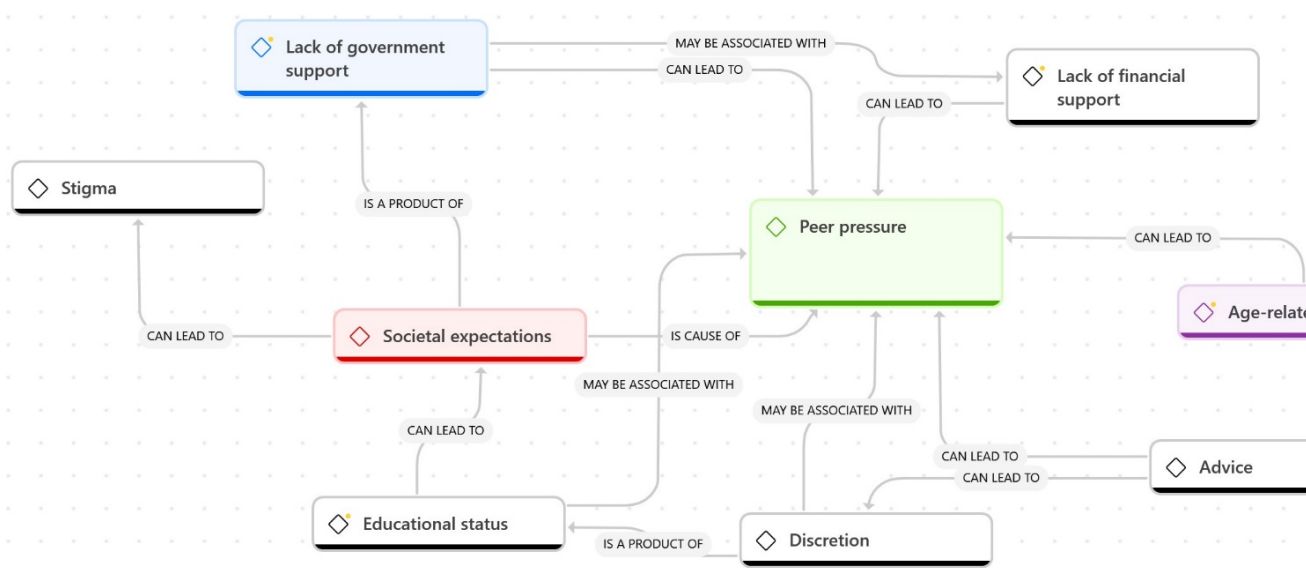
These social and cultural forces influence not only whether to seek treatment, but also which pathways to pursue. The decision to go to a hospital, church, or herbalist is frequently based on social legitimacy, affordability, and alignment with community norms rather than efficacy.

Figure 14 illustrates a conceptual flowchart that clarifies the relationship between socio-cultural determinants and the experience of infertility. The model demonstrates how structural and normative forces, such as societal expectations, insufficient governmental support, restrictive public policies, age-related fertility limitations, misinformation, cultural misconceptions, financial instability, and violations of personal autonomy, collectively intensify peer pressure. Moreover, the framework emphasizes that deeply rooted societal

norms regarding reproduction can create and sustain stigma, thereby intensifying psychosocial distress in affected individuals. This model emphasises the necessity for culturally competent interventions and structural reforms to alleviate the social determinants that exacerbate infertility-related distress.

**Figure 14**

*The Connections between Social and Cultural Factors in Infertility*



@ 2025 Solomon Kupolati- Author's original diagram

### ***Medical and treatment factors***

According to this study, infertile couples in Ibadan are influenced in their treatment decisions by a number of different factors, including the presence of fibroids and other medical conditions, the perceived ineffectiveness of medical treatment, religiosity and the failure of herbal remedies, according to the participants. The medical option is the predominant treatment choice among the participants, comprising 17 (42.5%) participants.

The decision-making process of participants is influenced by the belief that medical conditions, such as fibroid, can cause infertility and, as a result, necessitate medical solutions. This aligns with the claims of Freytag et al. (2021) that uterine factors, such as fibroids, can inherently lead to infertility.

However, the literature presents a different perspective on the perceived ineffectiveness of medical treatment. For instance, Henshaw (2022) states that even if a procedure or surgery is successful, immediate pregnancy is not guaranteed. Participants in this study interpret the unpredictability of the outcome as a shortcoming in medical treatment, compounding the stress felt by those involved as they eagerly await results that may never materialise.

Although 2.5% (1) of the participants chose to use herbalists for herbal remedies without considering alternative options, 42.5% (17) exclusively chose medical intervention, indicating the perceived superiority of medical options over herbal remedies. Larsen et al. (2003) cautioned that herbal supplements may not always contain the ingredients specified on their labels, posing a potential risk if consumed without professional guidance.

2.5% (1) of the participants admitted that, despite their apparent infertility challenges, they did not seek medical evaluation at the hospital. The present study has no explicit justifications for the causal approach, except for a lack of awareness regarding the importance of assessment.

100% (5) of fertility specialists advocate for the implementation of a direct approach in the counselling of couples who are struggling with infertility. They strongly urge such couples to prioritise medical evaluations over relying on herbal remedies. A similar

perspective is found in the literature; Pines (1990) suggested that emotional support should be offered to patients coping with the psychological effects of infertility; Grill (2023); Thorn (2009); and Ungerleider (2017) all agreed that counselling should be utilised.

While emotional and social factors dominate the narrative, medical and treatment-related factors serve as a structural framework for decision-making. Many participants reported feeling profound anxiety and uncertainty about the unknown cause of their infertility, which often led to a sense of helplessness and a search for answers outside of the clinic. When medical explanations were lacking or inconclusive, people were more likely to seek out spiritual or traditional healers who provided definitive narratives (e.g., "spiritual attack," "ancestral curse") and concrete interventions.

Medical conditions such as fibroids, blocked tubes, and hormonal imbalances were recognised as legitimate causes, and when diagnosed, they typically resulted in initial hospital-based care. Doctors' advice was generally accepted, especially when it involved clear diagnostic findings or actionable treatment plans. However, trust in the medical system was fragile and easily eroded by perceived dismissiveness, long wait times, or exorbitant fees.

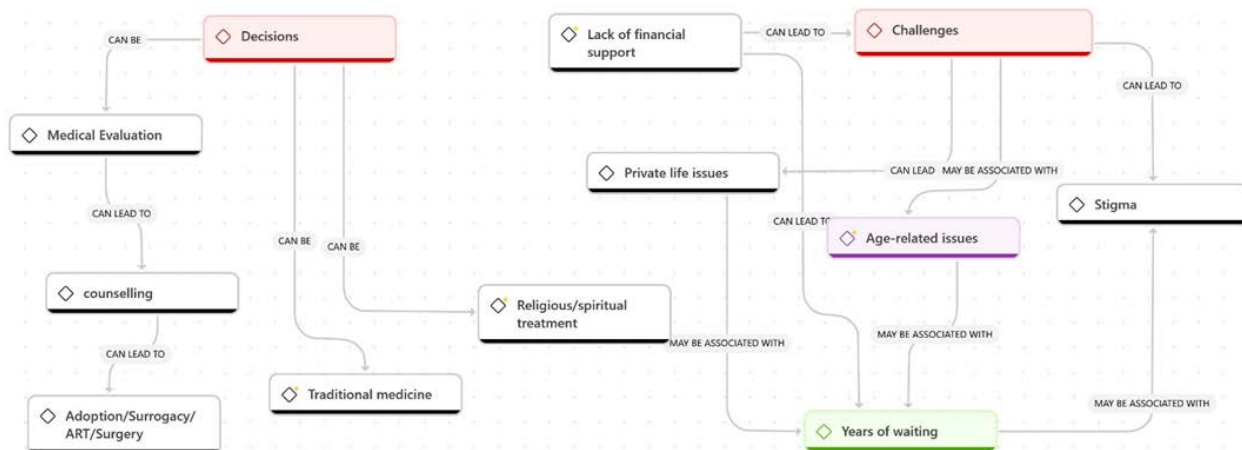
The presumed failure of medical treatment played a significant role in shifting treatment pathways. When couples had unsuccessful cycles of medication, surgery, or assisted reproduction, they often interpreted this as a failure of the medical system rather than a limitation of their biology. This perception opened the door to other possibilities. Similarly, when herbal treatment failed to produce results after a prolonged period of use, many people returned to medical care, indicating a cyclical rather than linear journey.

Notably, the findings indicate that treatment decisions are rarely final. Participants described switching back and forth between systems, a phenomenon known as sequential pluralism: beginning with hospitals, moving on to spiritual or traditional healers after disappointment, and occasionally returning to medicine with renewed hope or new providers. This fluidity reflects a pragmatic trial-and-error approach, in which each system is given a chance until it "fails," after which another is pursued.

As a result, medical factors are interpreted through emotional and cultural lenses, rather than operating in isolation. A failed IVF cycle is more than just a clinical outcome; it's a loss of hope, a financial burden, and a social setback. The emotional meaning of failure influences the decision to continue, switch, or discontinue treatment just as much as the medical implications.

Figure 15 presents a conceptual flowchart mapping the decision-making pathways in infertility treatment. The model delineates the constellation of individual, structural, and sociocultural factors that shape treatment trajectories, emphasizing their dynamic interrelationships. It traces how initial treatment choices may lead to formal medical evaluation, which, when coupled with psychosocial counselling, can culminate in the consideration of third-party reproductive options such as surrogacy or adoption. Conversely, the framework also encompasses alternative pathways, wherein individuals may seek assistance from traditional healers or religious leaders, frequently influenced by cultural norms, spiritual beliefs, or scepticism towards biomedical systems. Critically, the model further illustrates how systemic barriers, including financial constraints, privacy concerns,

age-related fertility decline, psychosocial stigma, and contextual challenges, can result in prolonged delays in care-seeking, sometimes spanning several years before formal intervention is pursued. This framework emphasises the non-linear, context-dependent characteristics of infertility care-seeking and underscores the critical necessity for integrated, culturally attuned support systems that address both medical and sociostructural factors.

**Figure 15***Decision-Making Routes in Infertility*

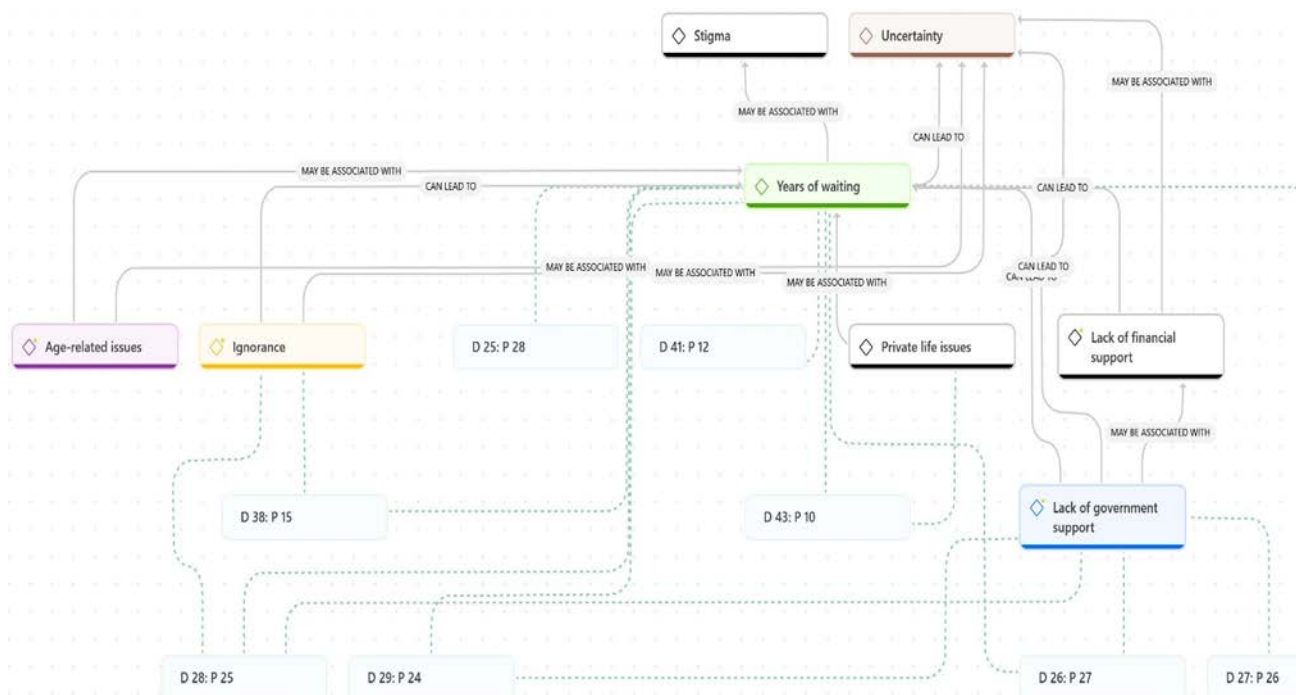
@ 2025 Solomon Kupolati – Author’s original flowchart: The graphical representation illustrates the factors that influence the choice of infertility treatment and their interrelationships.

Additional factors identified in the literature as potentially influencing medical decisions but not explored in the present study include anxiety, depression, and fear. These factors were identified in this study as being associated with emotional difficulties and the consequences of infertility, rather than being a cause of not seeking medical assistance. Nevertheless, according to a study conducted by Malik and Coulson (2010), the primary factors frequently cited as impeding infertile couples from seeking medical assistance were fear and anxiety.

An additional investigation carried out by Rich and Domar (2016) underscores the significance of fear and depression as fundamental components that motivate people to avoid seeking medical care. Multiple factors, according to the findings of Okonufua et al. (1997), can discourage individuals from pursuing medical treatment for infertility.

This study identifies financial constraints, limited health literacy, insufficient governmental support, pervasive stigma, clinical and emotional uncertainties, age-related fertility decline, and profound hopelessness after extended periods of unfulfilled conception as the primary barriers to accessing fertility treatment.

The intersecting barriers hinder personal healthcare-seeking paths and highlight the systemic disparities in the availability and accessibility of reproductive healthcare services. Overcoming these obstacles requires a multifaceted strategy rooted in public education, focused advocacy, and systemic policy reform, all of which are crucial for promoting equitable access to fertility care among varied populations. Figure 16 visually illustrates the interconnections among the identified barriers, providing a systematic framework for comprehending their collective effect on treatment accessibility. This model emphasises the necessity of framing infertility not solely as a biomedical issue but as a sociopolitical challenge that demands multisectoral intervention.

**Figure 16***Barriers to Infertility Treatment*

@ 2025 Solomon Kupolati – Author's original diagram: The model displays the barriers and obstacles to making informed choices on infertility treatment.

### ***Personal Values and Preferences (Behavioural)***

Figure 12 illustrates the preferred treatment choices for infertile couples in Ibadan. Seventeen participants, constituting 42.5%, selected a hospital for infertility treatment. Six individuals (15%) opted for spiritual treatment exclusively, whereas one individual (2.5%) consulted an herbalist without seeking specialist medical care. Some participants combined treatments, with 8 (16%) visiting both a hospital and seeking spiritual guidance from clerics. 6 (15%) integrate hospital treatment with traditional herbal remedies. Only 2 (5%) of the

participants utilised all three treatment methods. One participant (2.5%) opted not to pursue any form of therapy and remained at home until she became pregnant

This study discovered that treatment choices are influenced by a variety of factors, including individuals' desires (the desire to have a family, the desire for a legacy and replica), perspectives, and life goals. It provided evidence that individuals' preferences and desires influence these decisions considerably. In contrast to Greil's (2011) report findings, this study does not include any instances of voluntary infertility.

The study's conceptual framework integrates Freud's Theory of Human Behaviour and Maung's Model of Infertility Subtypes, which highlight the significance of conscious and subconscious desires, motivations, feelings, and cultural variables as influential factors in decision-making. These innate desires for children are in keeping with this framework (Freud, 1900).

Each treatment decision is based on a set of personal values and preferences that reflect the individual's identity, life goals, and worldview. While this domain overlaps with emotional and social factors, it focusses on the intentional, agentive aspect of decision making. Participants made decisions not only in response to external pressures, but also based on deeply held beliefs about what is right, meaningful, and consistent with their own sense of self.

Personal wishes and preferences were frequently used to justify taking specific paths, such as refusing IVF on religious grounds or insisting on prayer as the first line of treatment. For some, perspective, a worldview shaped by upbringing, faith, or previous experiences,

determined whether infertility was viewed as a medical issue, a spiritual test, or a natural fate. These perspectives did not remain static, but evolved over time, particularly following traumatic experiences or transformative encounters with healers.

The recurring themes of desire to build a family, desire for children, desire for legacy and replica, and a need to have children appear in a variety of domains, but in this context, they represent core life goals that guide long-term decisions. Parenthood was for many people inextricably linked to the meaning of life. This existential framing elevates fertility treatment from a medical option to a moral and personal necessity.

Importantly, personal values frequently act as a filter through which other factors are assessed. A couple may face societal pressure to have children, but whether they respond by pursuing expensive IVF, embarking on a spiritual pilgrimage, or accepting childlessness depends on their internal values. Similarly, medical advice can be followed or ignored depending on whether it is consistent with one's beliefs about nature, God, or the body.

Figure 17 illustrates a conceptual flowchart that clarifies the interaction among personal values, core preferences, and decision-making related to infertility. Participants in this study highlighted that their values and preferences are fundamentally linked to life goals, personal identity, and a strong aspiration to establish a family, frequently articulated as a desire to "replicate oneself" or achieve a core life purpose. For many individuals, parenthood is viewed as an existential necessity, making the pursuit of children, through any feasible means, central to their self-concept and life trajectory.

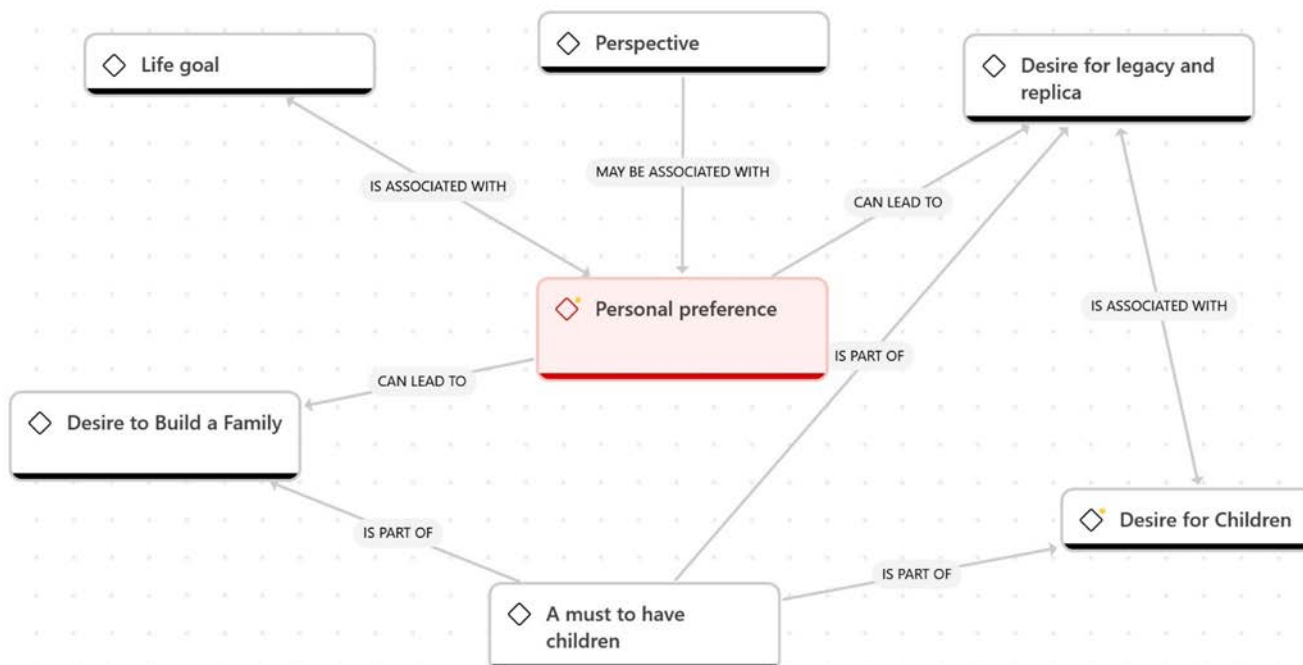
The model demonstrates how deeply held values and self-anchored ambitions influence

fertility treatment decisions, acting as both motivators and filters in the selection of available options. The framework highlights the ethical, emotional, and existential dimensions present in infertility care through the mapping of these connections. Comprehending this value-driven decision architecture can enable individuals and guide clinicians and policymakers in effectively addressing the psychosocial complexities of reproductive choice, fostering greater empathy, cultural competence, and person-centred support.

This is consistent with theories of identity continuity (Brooks, 2022) and self-determination (Loftus, 2009), which suggest that reproductive choices are fundamentally linked to the maintenance of self-narrative and autonomy.

**Figure 17**

*The Connection between Personal Values and Preferences in Infertility*



@ 2025 Solomon Kupolati- Author's original diagram.

### *The Interaction of All the Factors in Decision-Making*

The treatment decisions of infertile couples in Ibadan cannot be attributed to a single cause or linear process. Instead, they result from a dynamic, iterative negotiation of emotional, social, medical, and personal variables. A woman may start with hospital care (medical factor), continue because she wants children (personal value), persevere through setbacks because she believes in God (emotional coping), and switch to an herbalist due to pressure from her mother-in-law (social influence). Each decision is a response to a changing set of needs, pressures, and beliefs.

The quest for hope, agency, and meaning connects these domains. Individuals do not passively accept fate in a context where infertility carries a high stigma and medical solutions are limited; instead, they actively construct pathways that integrate science, faith, tradition, and emotion to maximize their chances of success while maintaining their dignity. The high rate of combined treatment use (e.g., hospital + church + herbalist) is not irrational, but strategically rational, reflecting a logic of cumulative hope: if one system fails, another may succeed; if one answers, another provides comfort.

To summarize, the factors influencing treatment decisions are not independent variables, but rather interconnected forces that shape a deeply personal yet socially embedded journey. Understanding this complexities is critical for creating fertility care models that are not only clinically effective, but also emotionally supportive, culturally sensitive, and respectful of individual autonomy. Policymakers and healthcare providers must shift away from a narrow

medical focus and towards a holistic, patient-centered approach that recognizes the full range of influences on one of life's most intimate and consequential decisions.

### **Research Question 2**

About the second research question, numerous participants reported significant emotional distress, especially after unsuccessful attempts to conceive despite their committed efforts. This underscores the psychological burden linked to treatment failure within a disease framework. Nonetheless, a non-disease perspective indicates that a significant portion of this distress stems from social imperceptibility, unfulfilled expectations regarding offspring, and the absence of culturally recognised alternatives to parenthood. The psycho-social impacts frequently influenced the decision-making process, leading some individuals to refrain from pursuing treatment or to choose alternative family-making options. The following factors elucidate the consequences identified in this research. The lived reality of infertility, as revealed through in-depth narratives of 40 previously infertile people and ten care providers in Ibadan, Nigeria, goes far beyond the biological inability to conceive. It is a profoundly disruptive life event that affects emotional well-being, social relationships, identity formation, and existential meaning. The themes generated, which include psychological strain, social pressures, medical frustrations, spiritual responses, personal agency, unexpected outcomes, and identity transformation, collectively depict a profound psychosocial journey characterised by suffering, resilience, and redefinition. Below is a thorough examination of each thematic domain, followed by a synthesis that reveals the interconnectedness of these experiences.

### *Psychological Stress and Coping Mechanisms*

All five (100%) fertility specialists emphasised the significant influence of infertility on their patients' psychological well-being. The main psychological effects identified by specialists and participants regarding fertility decisions in this study include a wide range of negative emotions, such as pain, sadness, frustration, stigma, and helplessness. These emotions may cause individuals to feel isolated and inadequate, heightening their distress and affecting their decisions about fertility treatment.

The inability to conceive can test one's self-identity and self-esteem, causing a sense of hopelessness, especially in societies where parenthood is highly valued and considered a central aspect of adulthood. This is consistent with the assertions made by Grube (2020) and Fisher and Hammarberg (2020), which suggest that individuals facing infertility may endure significant emotional and physical strain, particularly when effective treatments or resolutions prove challenging to attain. Rooney and Domar (2022) and Domar (2005) found that the stress of infertility can lead to feelings of guilt and shame, complicating decisions about fertility care options. According to Ergin (2008), couples may be hesitant to seek help for conceiving a child due to social stigma, even if it would be beneficial in the long run, both medically and psychologically.

Ullah et al. (2021) found that couples often feel isolated from family and friends who do not understand their situation or how to provide support during this difficult time. This, however, contradicts this study's findings, in which most participants benefit from the support of family and friends. Healthcare providers need to address these psychological impacts to provide holistic care for individuals struggling with infertility.

Infertility imposes a significant psychological burden, including intense emotional distress such as pain, frustration, emptiness, loss of hope, and sadness. Participants described these feelings as chronic states of being rather than transient reactions, as one woman put it: "a wound that never heals." The absence of children was perceived as a void, a disruption to life's natural order, and a failure of self. This sentiment, a strong emotional attachment to motherhood and family, exacerbated feelings of personal inadequacy and isolation.

In response to this stress, people used a variety of coping strategies. Some people, particularly those with higher education or prior emotional resilience, found ways to support themselves through introspection, journaling, or private reflection. However, the majority relied heavily on religious and spiritual coping as their primary psychological anchors. Prayers, fasting, and prayer vigils were more than just rituals; they were active strategies for emotional regulation and meaning-making. Expressions such as "hope in God," "faith in God," and acceptance of "fate" were not passive resignation, but active resistance to despair, allowing people to reframe infertility as a divine test rather than an individual failure.

Interestingly, even negative experiences, such as the failure of herbal treatment, were woven into a larger story of spiritual endurance. Rather than leading to complete disillusionment, such failures frequently prompted renewed prayer or deeper faith, indicating a cognitive framework in which perseverance is spiritually rewarding. Some participants eventually reached a state of doubtful acceptance or indifference, not for the purpose of healing, but as a protective emotional withdrawal, a psychological surrender to avoid further pain. Others, however, saw the journey as a source of gratitude and hope, particularly after conception, which was frequently interpreted as a miracle and a validation of faith.

These coping mechanisms reveal a dynamic psychological process that ranges from acute distress to adaptive resilience, guided by belief systems that provide both comfort and structure in the face of uncertainty.

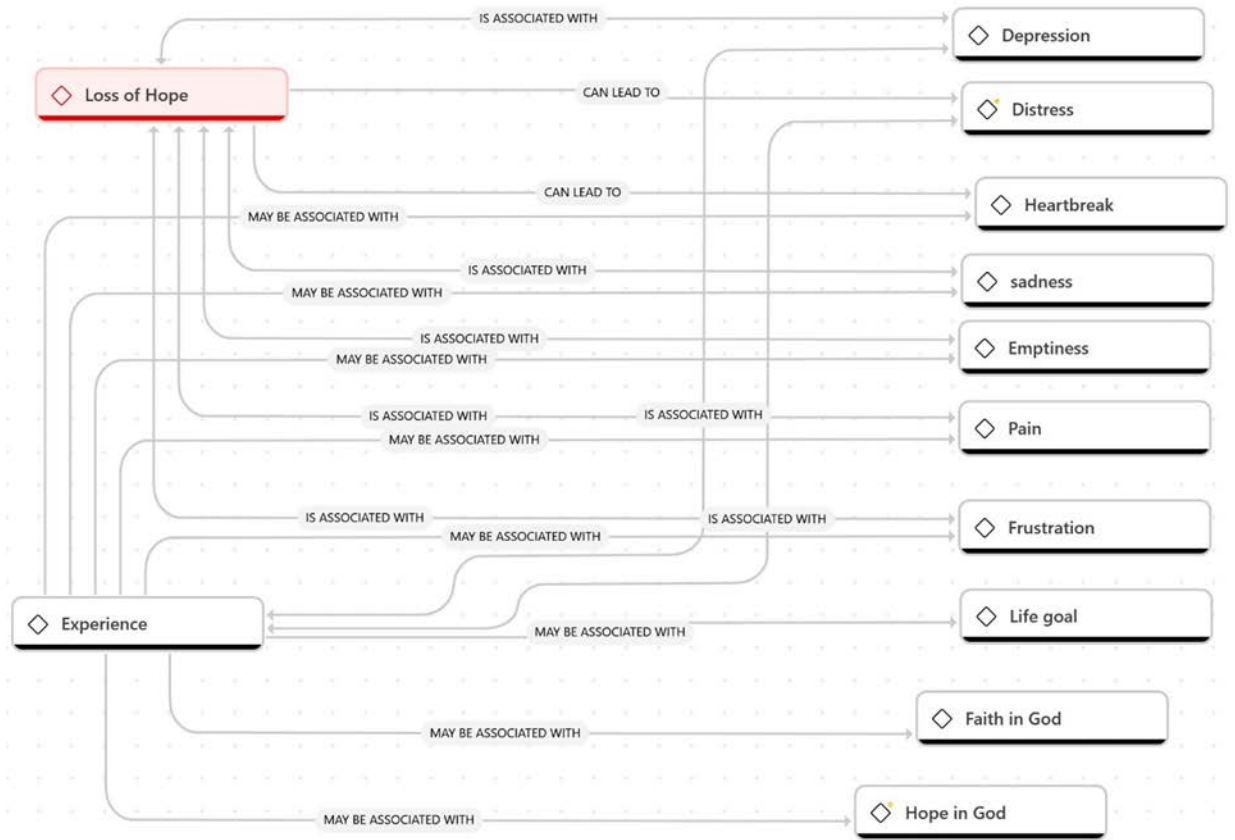
Figure 18 illustrates a thematic flowchart derived from participant narratives, providing a structured overview of the psychosocial consequences of infertility in affected couples. The model demonstrates that lived experiences of infertility, which include clinical encounters, social interactions, and internalised expectations, can lead to various forms of psychological distress, including hopelessness, depressive symptoms, emotional pain, profound grief, chronic frustration, and existential emptiness.

The framework effectively identifies pathways of resilience and meaning-making. It illustrates that for certain individuals, adversities can trigger transformative coping mechanisms, such as renewed hope, spiritual strength (e.g., faith in God), and realignment with personal life goals. Consequently, infertility is reframed not merely as a source of suffering but also as a potential catalyst for psychosocial growth and renewed purpose. This dual-pathway model corresponds with Frankl's (1946) concept of meaning-making in suffering Ge & Yang (2023) and Tedeschi & Calhoun's (2004) theory of post-traumatic growth, following a period of post-traumatic stress, indicating that infertility, although profoundly distressing, may also act as a catalyst for personal and spiritual transformation (Addington & Tedeschi & Calhoun, 2016).

Identifying these trajectories can enhance trauma-informed counselling methods that acknowledge suffering and promote resilience.

**Figure 18**

*A Flow Chart Model of the Association between Infertility, Psychological Strain, and Coping Mechanisms*



*@ 2025 Solomon Kupolati – Author’s original work: The picture above illustrates the complex relationship among the elements influencing the psychosocial well-being of infertile couples.*

### *Social and cultural factors*

The social aspect of infertility is perhaps the most upsetting, as it transforms a private medical condition into a public crisis of identity and belonging. Societal expectations, the deeply ingrained cultural norm that marriage must produce children, are a major source of stress. Childlessness is frequently perceived as a moral flaw, particularly among women, resulting in stigma, gossip, and social exclusion. Peer pressure adds to this pressure, as people compare their reproductive status to that of their peers and feel compelled to show effort, even if the treatments are ineffective or expensive.

The relationship with one's partner suffers significantly. While some couples reported stronger bonds as a result of their shared struggle, others described marital strain, blame, secrecy, and emotional disconnection. Men frequently remained silent or distant, reinforcing the stereotype that infertility is a woman's responsibility. In extreme cases, this strain resulted in divorce, which participants feared would lead to total social and economic collapse. The lack of family support, particularly from in-laws, was frequently cited as a source of great emotional distress, with mothers-in-law frequently portrayed as agents of relentless pressure and judgement.

Structural factors such as a lack of government support and a failure to provide reproductive health services exacerbate social vulnerability. Participants expressed frustration with the lack of public fertility programs, subsidized treatments, and mental health support, reinforcing a sense of abandonment by the state. Financial and educational status also influenced social experiences: while the wealthy could afford private care, the majority struggled financially,

forcing them to choose between treatment and basic needs. Education provided some protection; higher literacy was associated with better health knowledge and coping strategies, but stigma did not disappear.

Age-related issues added another layer of stress, especially for women over 35, who experienced increased anxiety about declining fertility and societal perceptions of "late" or "impossible" motherhood.

These social forces do not simply accompany infertility; they define it as a lived experience. The condition is defined not only by biology, but also by its social consequences, such as exclusion, shame, and a loss of relationship security.

In terms of culture, this study revealed that religion significantly influences decisions regarding fertility treatment. Notably, while some participants favoured traditional medicine, this preference did not correlate with their religious affiliations, as both Christians and Muslims consulted traditional healers. Of those interviewed, 75% identified as Christians, 25% as Muslims, and none as traditional worshippers. The findings indicate that adherence to these two predominant religions did not deter participants from seeking assistance from traditional healers, with 49.9% of Christians and 50% of Muslims integrating medical options with alternative treatments (See Table 3).

This study affirms the transformative influence of prayer on infertile patients, sufficiently potent to alter their concept of treatment and healing. The majority of participants hold the belief that God possesses limitless capabilities and maintain a sincere faith in His perpetual presence. This may elucidate why, as noted by Jennings (2010), religion and faith

are integral elements of infertility treatment, decision-making, and the healing journey. The findings indicate that this belief is so profound that some infertile patients depend exclusively on prayer while anticipating divine intervention.

Ellison & Levin (1998) suggest that prayer can aid in the healing process for individuals experiencing infertility. This assertion is in tandem with this study's findings. This study also revealed that the majority of infertile patients exhibited the trait of waiting on God, attending prayer sessions, and consuming holy water and Quranic water. Participants did not perceive this waiting period as a waste of time; instead, they regarded it as a period of hope and belief in the resolution of their problems.

Literary sources are limited regarding the consumption of holy and Quranic water as a method for enhancing faith and divine guidance in decision-making that results in favourable outcomes. However, Seybold, (2002) observed such practice while researching a Senegalese woman's experience choosing infertility treatments. Such practices may exist across cultures.

Again, this research confirmed the importance of religion, not only as a strategy for managing stress but also as a determinant that enhances the likelihood of achieving successful conception. A recurring observation among research participants is their readiness to cede control to God and embrace the obstacle of infertility. Religion, according to Domar (2005), can serve as a mechanism to mitigate the psychological strain associated with infertility. In this study, even fertility specialists who treat infertile couples stated that religious people make up the majority of their patients.

The study confirms that the majority of participants believe God is the ultimate provider of everything, including the ability to bear children. Their faith in God appears to make them happy with their circumstances. As a result, strict adherence to religious beliefs rather than taking proactive steps renders religiosity an essential determinant that influences not only the choice of treatment but also the timing of treatment seeking.

According to the findings of this study, religion appears to be at the heart of all decisions made by the majority of participants, as they acknowledge God before considering medical intervention. According to Domar et al. (2005), faith can bring hope and comfort to infertile couples during difficult times, and ultimately shape their decision-making process.

Clerics who treat infertile couples reported that many people seek comfort and strength from prayer and spiritual guidance during their infertility journey, particularly after unsatisfactory medical treatments. According to the findings of this study, the concept of God is pervasive, with traditional healers, fertility specialists, clerics, and patients all agreeing on God's all-knowing, all-doing power. Hbek & Kızılkaya (2021) confirm that acknowledging the importance of religion can bring comfort and peace to those struggling with infertility and improve their decision-making process.

According to clergy, couples frequently express their hopes and desires in prayers for divine intervention and assistance. Koenig (2020) argues that faith is a powerful tool for personal growth and spiritual connection. Roudsari (2007) supports this idea, arguing that when confronted with an infertility crisis, couples can find comfort and meaning in their ordeal by turning to their religious or spiritual beliefs.

According to this study's findings, religion supports couples dealing with this difficult situation during times of pain and sadness, providing a spiritual vent for their deepest emotions that would otherwise be absent through modern medical care.

### ***Medical Challenges and Perspectives***

The medical field is a source of both hope and disappointment. The unknown cause of infertility is a common source of psychological distress, leaving individuals without a clear explanation or treatment plan. This diagnostic ambiguity promotes anxiety, self-blame, and helplessness, leading many people to seek alternative systems that provide definitive narratives (e.g., spiritual attack, ancestral curse).

When a diagnosis is made, such as fibroid or hormonal imbalance, medical advice is generally followed, particularly when it involves specific interventions. However, trust in the healthcare system is fragile. Presumed failure of medical treatment, especially after multiple unsuccessful cycles of medication or surgery, causes frustration and a loss of trust in medical authority. This perceived failure frequently results in a shift towards spiritual or traditional healing, not because medicine is rejected, but because it is deemed insufficient.

Interestingly, following instructions and adhering to medical regimens were reported as signs of commitment and hope. Participants described meticulously following doctors' orders, seeing compliance as both a moral and practical obligation. However, when compliance

produced no results, the emotional impact was devastating, exacerbating feelings of futility.

Underlying these medical experiences is a persistent desire to start a family and have children, which serves as a motivator that keeps patients engaged with the healthcare system despite setbacks. The medical journey is thus more than just clinical; it is an ongoing negotiation between hope and disappointment, agency and powerlessness.

### *Emotional and religious impact*

This theme captures the fundamental emotional texture of the infertility experience. Heartbreak, distress, depression, and sadness were common, often described in vivid terms: "It feels like a knife in the chest," "I cry in the bathroom so no one hears." (P4, Female, 30 years). These emotions are chronic, embedded in daily life through missed milestones, baby showers, and pregnancy announcements.

Religion, however, provides a powerful counterbalance. Faith in God and belief in fate provide a framework for endurance, turning suffering into a test of spiritual worth. Thus, the emotional spectrum is not linear, but rather dialectical, alternating between despair and hope, emptiness and faith, and distress and peace. For many, praying became a therapeutic ritual, a way to externalize pain while reclaiming agency.

The idea of a life goal is central here. Parenthood is a core identity project, not a peripheral aspiration. When this goal is not met, an existential crisis occurs, bringing up questions about

purpose, legacy, and self-worth. The desire for legacy and replica, passing down one's name, genes, or likeness, increases the emotional burden, especially in a culture that values lineage and continuity.

### ***Personal Agency and Decision Making***

Despite the overwhelming pressures, participants demonstrated remarkable agency in managing their fertility journeys. Personal wishes, preferences, and perspectives influenced decisions about which treatments to pursue, when to continue, and when to discontinue. Some prefer prayer to medicine, while others strategically combine all three systems. Discretion was an important form of agency, as it allowed people to choose when and to whom they disclosed their infertility, often as a way to avoid stigma.

Family, friends, and community elders provided valuable advice, but it was not always followed. Educated people, in particular, engaged in critical evaluation, weighing external information against their own values and experiences. This represents a nuanced form of autonomy, not complete independence, but rather negotiated agency within relational and cultural contexts.

### ***The Impact of Unexpected Outcomes***

A surprise pregnancy, often after years of treatment failure or misdiagnosis, has been described as a state of profound shock, disbelief, and euphoria. Many people interpreted it as

a miracle, proof of faith, or divine intervention. However, this joy was occasionally tempered by negative effects such as concern for the baby's health, fear of miscarriage, or difficulty adjusting to the abrupt change in identity.

Misdiagnosis, such as being told one could never conceive only to later become pregnant, elicited a range of emotions, including rage at the medical system, gratitude to God, and confusion about the body's unpredictable nature. These findings highlight the uncertainty and unpredictability inherent in infertility, challenging both medical and personal narratives of control.

### ***Identity and Role Transition: Motherhood***

Perhaps the most transformative experience is becoming a mother after infertility. Participants described it as a rebirth of identity, rather than a return to normalcy. Infertility had reshaped them through pain, faith, and perseverance, and motherhood was more than just an outcome; it was a hard-won accomplishment.

Many parents reported a greater appreciation for their children, a stronger sense of purpose, and a reframed self-concept. The title of "mother" was no longer taken for granted, but rather cherished as a triumph over adversity. This transition also changed the woman's social status, elevating her from "barren" to "blessed", demonstrating how reproductive success is central to social identity in this context.

### ***The Interwoven Psychosocial Reality of Infertility***

Infertility's psychological and social experiences are not separate phenomena, but rather interconnected components of a larger existential crisis. Emotional pain is exacerbated by social stigma; medical uncertainty is alleviated by spiritual hope; and personal agency is exercised within limited social and economic circumstances. What emerges is a portrait of people who are not passive victims, but active meaning-makers, navigating a maze of emotional, social, and medical challenges with remarkable fortitude. They rely on religion for comfort, relationships for support (or to bear their absence), medicine for answers, and personal values for guidance. The unexpected pregnancy or transition to motherhood does not erase the past, but rather reframes it, turning suffering into a triumphant story.

In conclusion, infertility in Ibadan is more than just a medical condition; it is a profound psychosocial journey that alters identity, relationships, and worldview. To fully comprehend it, one must look beyond clinical metrics and consider the emotional depth, cultural complexity, and existential weight of the experience. This necessitates a comprehensive, compassionate, and culturally informed approach to care, one that recognizes not only the body's ability to conceive but also the mind's need for meaning, the heart's need for hope, and the soul's need for dignity.

### ***Methodological Consistency in Addressing Gender Imbalance***

The study's significant gender imbalance, with 39 women and only 1 man among the 40 participants with a documented history of infertility, and 8 men and 2 women among the

providers, for a total of 41 women and 9 men, is both a methodological limitation and a socioculturally significant finding. This methodological skew limits the generalizability of concepts related to marital dynamics, shared decision-making, and couple-level emotional responses to infertility. In the absence of significant male perspectives, interpretations of spousal support, communication patterns, and co-navigated treatment choices may be incomplete or speculative rather than based on empirical evidence. This limitation is especially significant in qualitative research, as the depth and diversity of perspectives influence the validity and transferability of emerging themes. Thus, findings concerning conjugal negotiations regarding treatment options, financial allocation, or emotional labour within partnerships should be interpreted cautiously, as they primarily reflect female subjectivities.

This stark imbalance is not merely a sampling artefact; it serves as a significant empirical manifestation of the gendered burden of infertility within the Nigerian context. The scarcity of men is not coincidental; it serves as an indicator. It demonstrates that infertility is socially constructed, experienced, and managed as a feminine crisis, which results in men being both structurally and culturally exempt from its emotional and institutional burdens. Men's absence from clinic visits and study participation reflects broader societal norms that protect them from stigma while putting the whole burden of reproductive "failure" on women. In this context, the gender imbalance transforms from a mere methodological limitation into a significant data point that supports the main argument of gendered inequity. The observation that only one man accompanied his wife to the clinic, thereby entering the research orbit, highlights the exceptional rather than normative nature of male involvement. This reality confirms that the notion of gendered burden is not merely an abstract concept but a tangible,

systemic pattern present in healthcare-seeking behaviour, familial expectations, and social accountability.

Thus, while the imbalance restricts the study's ability to represent male experiences, it supports its central claim regarding the unequal social repercussions of infertility in Ibadan. Rather than discrediting the research, this trend demonstrates that infertility is a gendered institution that marginalizes women emotionally, socially, and intellectually while leaving men's roles secondary or invisible. In this sense, the methodological constraint becomes a substantive revelation, emphasizing the importance of addressing gender bias not only in reproductive health interventions, but also in future research that aims to understand infertility as a truly relational and equitable human experience.

### **Summary**

This qualitative exploratory study provides a comprehensive understanding of the lived experiences, decision-making processes, and psychosocial realities of individuals and couples dealing with infertility in Ibadan, Nigeria. By combining the perspectives of 40 previously infertile people, mostly women, and ten fertility care providers, including medical specialists, traditional healers, and spiritual leaders, the study reveals that infertility is a deeply embodied, socially constructed, and emotionally charged phenomenon. The findings show that fertility care decisions are influenced by a complex interplay of medical, cultural, religious, economic, and gendered factors, resulting in non-linear, iterative treatment paths that frequently include medical clinics, spiritual retreats, and traditional healing centres.

The data reveal a central theme: infertility imposes a profound psychosocial burden, characterized by intense emotional distress, including shame, anxiety, hopelessness, and social isolation, exacerbated by societal stigma, marital strain, and the cyclical disappointment of failed treatments. These psychological consequences are not incidental but rather central to the experience of infertility, as corroborated by Greil, Slauson-Blevins, & McQuillan (2010), especially in a sociocultural context where reproductive capacity is inextricably linked to personal identity, marital stability, and social status. Women, in particular, bear the brunt of this burden, frequently internalizing blame and enduring silent suffering as a result of entrenched gender norms that portray childlessness as a feminine flaw.

The study sheds more light on the critical role that belief systems play in shaping care-seeking behaviour. Rather than viewing medical, spiritual, and traditional systems as mutually exclusive, participants often employed all three in a pragmatic, sequential, or concurrent manner, driven by a desire for holistic healing and existential meaning. Faith and spirituality were more than just coping mechanisms; they were active frameworks through which people interpreted their pain, maintained hope, and reclaimed agency in the face of uncertainty. Prayer, fasting, holy water, night vigils, and ancestral rituals were described as sources of emotional resilience, divine intervention, and psychological relief, which supplemented rather than replaced medical treatments.

Family expectations, religious authority, financial constraints, and fear of social exclusion all had a significant impact on decision-making. Economic barriers, particularly the high cost of assisted reproductive technologies, have limited access to formal medical care, leading many people to seek out more affordable, though less clinically regulated, spiritual and traditional

alternatives. Furthermore, a lack of health literacy, misinformation, and distrust in the healthcare system hamper informed decision-making, frequently resulting in delayed or fragmented treatment.

The findings highlight the importance of comprehensive, patient-centred fertility care that goes beyond a narrow medical focus. Participants repeatedly expressed a desire for empathetic, culturally competent services that incorporate psychosocial support, such as counselling, peer support groups, and educational resources, into routine clinical practice. The lack of such support was identified as a significant gap, forcing people to navigate emotional distress alone. A gender-sensitive approach is critical: while women require trauma-informed care that recognizes their disproportionate burden, men require targeted engagement strategies to overcome cultural barriers to participation and reframe reproductive health as a shared responsibility.

Methodologically, the study supports the importance of qualitative research in revealing the nuanced, context-specific realities of infertility. The use of reflexive thematic analysis, which was supported by Atlas.ti, allowed for a rigorous, transparent, and interpretive data synthesis, ensuring that findings were grounded in participant voices while maintaining analytical depth. While the gender imbalance in the patient sample, 39 women and one man, reflects real-world healthcare utilization patterns, it also highlights a critical area for future intervention: men's systemic marginalization in fertility discourse and care.

Finally, this study demonstrates that effective fertility care in Ibadan requires comprehensive, integrative, and socially responsive approaches. It advocates for a paradigm shift from a

conception-focused model to a well-being-oriented framework that acknowledges the interdependence of infertility's emotional, cultural, relational, and medical dimensions. Policymakers, clinicians, and community stakeholders can make fertility care more humane, inclusive, and empowering for all by encouraging interdisciplinary collaboration, promoting gender equity, and incorporating psychosocial support into healthcare systems.

## **CHAPTER 5: IMPLICATIONS, RECOMMENDATIONS, AND CONCLUSION**

### **A Comprehensive Review of the Problem Statement, Purpose, Methodology, Limitations, and Ethical Dimensions**

Infertility remains a major global public health concern, affecting an estimated 186 million people worldwide (Agarwal et al., 2020; Mascarenhas et al., 2012). While medical advances in assisted reproductive technologies (ART) have increased treatment options, access to care remains incredibly unequal, particularly in low- and middle-income cities (LMICs) like Ibadan, Nigeria. In these settings, infertility is not only a medical condition, but also a deeply social, emotional, and cultural experience, frequently accompanied by stigma, marital strain, social exclusion, and psychological distress (Golombok et al., 2017; Köse et al., 2020; Thorn, 2009). Despite a growing body of research on the psychosocial aspects of infertility, including studies on social support (Montgomery & Terrion, 2023), familial attitudes (Ergin et al., 2018), quality of life (Esan et al., 2022), and help-seeking behaviours (Wells, 2023; Hiadzi & Boafo, 2020), a critical gap remains in understanding how individuals and couples navigate the complex landscape of fertility care, which includes medical, traditional, and spiritual healing systems. Most existing research focuses on single treatment modalities or views alternative systems as deviations from "rational" medical care, failing to capture the integrated, contextually grounded decision-making processes that characterize

reproductive health-seeking in pluralistic healthcare settings. This omission is especially noticeable in Sub-Saharan Africa, where religious beliefs, cultural norms, and economic constraints shape hybrid treatment paths. The current study places its inquiry within this context.

### **Problem Statement**

The primary issue addressed by this study is the limited understanding of how fertility treatment choices, especially the interaction of medical, traditional, and spiritually based interventions, impact the psychosocial well-being of individuals and couples facing infertility in Ibadan, Nigeria. While previous research has documented the stigma and emotional burden of infertility (Nieuwenhuis et al., 2009; Esan, 2022), it often overlooks the lived experiences of treatment choices, motivations for infertility care, and the psychological effects of success, failure, or extended uncertainty across different healing paradigms. Furthermore, current literature frequently depicts traditional and spiritual practices as either alternatives to, or barriers to, modern medicine, fostering a binary that does not reflect the reality of integrated, sequential, or complementary care strategies commonly employed by patients. This analytical gap results in a fragmented understanding of reproductive resilience, hindering efforts to develop culturally competent, patient-centred fertility services. The absence of comprehensive research examining the multidimensional effects of treatment options across emotional, relational, and existential aspects represents a notable gap, particularly in understudied urban African settings like Ibadan, where pluralistic healthcare systems are the norm rather than the exception.

The main aim of this study is to explore and understand the fertility care decision-making processes of couples in Ibadan, Nigeria, along with the psychosocial impacts of their treatment choices. The study seeks to gain deeper insight into how individuals navigate the overlapping domains of medical, traditional, and faith-based healing systems; what cultural, religious, or social factors influence their decisions; and how these decisions affect their emotional health, marital relationships, and sense of identity. Using a qualitative, exploratory approach, the study aims to produce rich, contextually grounded understanding of the realities of infertility, going beyond clinical success indicators to highlight the human aspects of reproductive struggles and resilience. The findings are intended to inform more inclusive, compassionate, and integrated fertility care models that recognize and respect diverse belief systems while promoting evidence-based, safe, and timely interventions. Ultimately, the study aims to shift the paradigm in reproductive health research from a medical deficit model to a culturally rooted, psychosocially informed view of infertility.

To achieve its goals, the study employs a qualitative exploratory design that emphasizes the subjective meanings that people assign to their experiences. In-depth, semi-structured interviews were conducted with 50 participants in Ibadan, including couples who had a documented history of infertility but had since conceived, fertility specialists, traditional healers, and religious leaders. Purposive sampling techniques were used to ensure diversity in treatment experiences, socioeconomic backgrounds, and involvement with various healing systems. The inclusion of people who conceived after infertility was deliberate, as it allows for reflective, retrospective accounts of the entire emotional trajectory of infertility, including coping mechanisms, decision-

making processes, and post-resolution psychological outcomes. This approach improves narrative coherence and allows for a more in-depth examination of long-term psychosocial consequences that individuals currently receiving treatment may not have access to.

Interviews were conducted in English and Yoruba, recorded with consent, and transcribed verbatim (Jones, 2021). Thematic analysis was used to identify, analyze, and report patterns in the data using Braun and Clarke's (2006) six-phase framework. The initial coding was inductive, allowing themes to emerge organically from the data, while subsequent analysis included deductive elements informed by existing theories of health-seeking behaviour, stigma, and spiritual coping. Data saturation was reached after 35 interviews, with the remaining five used to confirm thematic consistency. The combination of multiple stakeholder perspectives, including patients, clinicians, traditional practitioners, and religious leaders, provides a comprehensive picture of the fertility care ecosystem, revealing systemic fragmentation, communication gaps, and opportunities for service integration.

### ***Limitations***

While the study provides useful information, several limitations must be acknowledged. First, the use of retrospective narratives from individuals who have conceived may introduce recall bias, as participants may reconstruct past experiences through the lens of current results. For example, successful conception may result in a more positive reinterpretation of previous difficulties or a proclivity to rationalize past

decisions.

Second, while the sample is diverse, it is limited to Ibadan and may not apply to other urban or rural settings in Nigeria or throughout Sub-Saharan Africa. Regional differences in culture, religion, and healthcare systems may have a different impact on fertility care pathways.

Third, this study is limited by a significant gender imbalance in the patient sample, comprising 39 women and only one man among the 40 participants who had previously experienced infertility. This disparity arises not from a deficiency in recruitment methodology but rather from the sociocultural realities of infertility in Ibadan, where childlessness is primarily ascribed to women and reproductive healthcare environments, such as antenatal clinics, are predominantly female-oriented. Men infrequently attend follow-up visits or fertility consultations, as societal norms typically frame infertility as a private issue primarily affecting women, which diminishes male participation. The recruitment process predominantly took place in clinical environments, where women constitute the majority of attendees, resulting in a sample that reflects this gendered pattern of healthcare access and participation. The incorporation of male perspectives from fertility specialists, traditional healers, and clergy has expanded the understanding of male viewpoints; however, the significant lack of male patients restricts direct insight into the lived experiences of male infertility within this group.

This limitation presents a significant interpretive opportunity: the underrepresentation of men in the data highlights a critical gap in reproductive health

engagement, which extends beyond this study into clinical and community practices. This imbalance does not undermine the study's validity; rather, it underscores a systemic issue regarding men's marginalization in fertility discourse and care, which requires immediate attention. Future research should deliberately establish pathways for male involvement, including male-friendly clinics, community outreach initiatives, and couple-based interviews, to achieve a more equitable understanding of shared reproductive experiences. The study acknowledges this limitation, thereby ensuring methodological transparency and contributing to the ongoing discourse on gender equity in fertility care and research as mentioned by Siegel (2006).

Furthermore, due to the self-reported nature of the data, participants' responses may be influenced by social desirability or stigma, especially when discussing sensitive topics like marital conflict, blame, or participation in traditional or spiritual practices. Despite assurances of confidentiality, some people may withhold or modify information, particularly in a context where infertility is highly stigmatized.

The study's focus on couples who have conceived results in an underrepresentation of those without children, which may restrict our comprehension of the long-term psychosocial effects of unresolved infertility. Future research should include longitudinal designs and comparative analyses of various fertility outcomes to capture a broader range of experiences.

A significant disadvantage of this study is the researcher's insider positionality, notably as a practising medical doctor, which may have biased data collection and interpretation. Although this professional identity facilitated access to participants and

provided valuable contextual understanding, it also introduced potential bias. Participants may have modified their responses to correspond with their perceptions of medical norms or expectations, particularly when discussing health-seeking behaviours or traditional care. Such dynamics highlight the importance of reflexivity, as the researcher's background may have unintentionally influenced the framing of interview questions, the emphasis placed on specific themes during analysis, or the interpretation of participant narratives, thus favouring medical perspectives over indigenous or local understandings.

Furthermore, the study is vulnerable to social desirability bias, especially considering the sensitive nature of topics like reliance on traditional healing approaches in an environment where medical care is frequently emphasized. Despite pledges of secrecy, participants may have been tempted to offer responses that they considered reflected socially acceptable views, minimizing or omitting events or ideas that could be stigmatized or assessed. Finally, the findings are fundamentally local and cannot be generalized beyond the specific sociocultural environment of Ibadan, Nigeria. The interaction of local norms, historical influences, and healthcare infrastructure in this urban setting shapes health-related behaviours in ways that may differ significantly from other regions in Nigeria or around the world; thus, any extrapolation of these findings should be done with caution.

To mitigate this, the researcher maintained reflexivity throughout the research process, keeping a reflective journal and participating in peer debriefing to increase credibility and trustworthiness.

### *Ethical Dimensions*

Given the sensitivity of infertility and the possibility of emotional distress during data collection, ethical considerations are critical in this study. The Unicaf review board approved the research, which followed the ethical principles outlined in the Declaration of Helsinki. Before interviews, all participants provided informed consent, which included clear explanations of the study's purpose, procedures, risks, benefits, and the right to withdraw at any time without consequence. To protect confidentiality, all identifying information was removed from transcripts, and findings were reported under pseudonyms. Interviews were held in private settings to ensure privacy, and participants were given access to counselling services if they experienced emotional distress during or after the interview.

Special emphasis was placed on power dynamics, particularly in interactions with vulnerable populations such as women, who are frequently disproportionately blamed for infertility in patriarchal societies. Researchers were trained to approach participants with cultural sensitivity and empathy, avoiding judgmental language and framing questions in a non-intrusive manner. The inclusion of healthcare providers contributed to a more balanced perspective. Furthermore, the study acknowledged the legitimacy of traditional and spiritual healing practices while avoiding devaluing non-medical interventions, which is critical for maintaining trust and ethical integrity in a pluralistic cultural context.

The ethical commitment extended beyond data collection and dissemination. Findings

are presented in a way that humanizes participants' experiences while avoiding sensationalism and reductionism. The study promotes social justice and challenges harmful cultural norms by amplifying marginalized voices, particularly those of women and couples who have faced long-term reproductive challenges. At the same time, care was taken not to expose participants to potential social consequences, especially in communities where infertility is stigmatized. Methodological transparency, such as detailed documentation of data collection and analysis procedures, reinforced ethical rigour by ensuring replicability and accountability.

### **Discussions**

This study sought to identify the primary factors that impact couples' choices regarding infertility care and to examine the related psychosocial effects. The significant gender disparity in the patient sample, 39 women and one man among those who had successfully addressed infertility, serves not only as a methodological observation but also as an indication of underlying sociocultural dynamics. In Ibadan, similar to various regions in Nigeria, infertility is perceived as a female inadequacy, leading to significant stigma, blame, and pressure directed towards women (Dyer, 2007). This gendered burden is evident in healthcare behaviour, as women are significantly more likely than men to seek, persist in, and engage with fertility and antenatal care systems. The scarcity of male partners in clinical settings highlights a significant trend of male disengagement from reproductive health, affecting shared decision-making, emotional support, and equitable access to care. The presence of a single male participant underscores the potential for male involvement and the necessity of fostering more inclusive

environments in fertility care. This imbalance does not undermine the study; rather, it provides empirical evidence of the gendered nature of infertility experiences in this context, highlighting the necessity for interventions that actively involve men and challenge existing norms.

The research demonstrated that decisions related to fertility are shaped by a complex interaction of medical, religious, and behavioural factors, with their impacts being reinforced by psychological and socio-cultural elements. The five key themes identified in this research comprehensively addressed all research questions. The themes examined provide a thorough understanding of the psychological and social ramifications of infertility for couples in Ibadan. The following sections provide a discussion of each theme.

### **Research Question 1: Factors Influencing Choice of Treatment**

This study identified several factors influencing treatment choices, including emotional and psychological aspects, socio-cultural influences, medical considerations, and personal values and preferences. These factors may manifest as negative emotions, stigma, peer pressure, trust issues, personal beliefs, and religious inclinations. P7, a 40-year-old female, states, "I could sleep, I kept thinking. Will I ever hold my own baby?" The identified factors serve as catalysts that motivate participants to pursue medical, spiritual, or traditional treatments. The findings align with the literature review, which identifies cultural beliefs and values (Turner, 2020); religious beliefs (Hook et al., 2021; Jennings, 2010; Domar et al., 2005); financial resources (Dunbar & Shultz, 2021); access to healthcare services (Ombelet, 2011; Ombelet, 2020); personal preferences (Uriko, 2020; Montgomery & Terrion, 2023); treatment availability in their locality (Morshed-Behbahani et al., 2020); knowledge of various treatment options (Blakemore et al., 2020); and counsel from family or friends (Passet-Wittig & Greil, 2021; Shreffler et al., 2020) as factors influencing treatment choices.

This study revealed that 42.5% of participants opted solely for medical interventions, while 57.2% explored alternative choices. This indicates that some participants view infertility through a medical perspective, necessitating treatment in accordance with the 'disease' theoretical framework, whereas others perceive it as a matter of fate or an aspect of their life journey, aligning with the 'non-disease' theoretical framework of this project. These orientations are profoundly shaped by their beliefs, desires, and intrinsic motivation, which subsequently dictate the choices regarding medical treatment.

This study indicates that adverse outcomes elicit negative emotions, while favourable outcomes are linked to positive feelings, irrespective of treatment options. This finding emphasizes outcomes over treatment types, representing a novel approach.

This research indicates that favourable outcomes are sometimes credited not to the treatment type that enabled conception, but to the belief system of the individuals involved. An individual receiving both medical and spiritual treatment frequently credits the positive outcome to the spiritual component, even though it was the medical intervention that effectively addressed the infertility concerns. For example, P37, a 30-year-old female, states, "Prayer did the magic". This transfer of gratification is also an exciting discovery.

### ***Emotional and Psychological Factors as Central Influencers of Fertility***

#### ***Treatment Decisions, Aligning with Research Question 1***

This study reveals that emotional and psychological factors are not incidental, but rather fundamental to understanding how infertile couples in Ibadan make decisions about fertility care. In response to Research Question 1: What factors influence an infertile couple's treatment decisions?, the analysis reveals that decisions are deeply rooted in the affective

realm, shaped by pain, frustration, emptiness, loss of hope, and the ongoing interplay between fate, faith in God, and hope in God. P4, a 30 year old female states: "I see not having children as if I come to this world for nothing". These emotional experiences do more than just accompany the journey to conception; they actively shape it, deciding which paths to take, abandon, or combine. The identified codes: *sentiment, self-support, religious/spiritual coping, relationship with partner, love for children, challenges, experience, and enduring desires such as desire to build a family, desire for legacy and replication, desire for children, and a need to have children*, collectively form a psychological landscape in which treatment decisions are shaped by emotional necessity as well as rational calculation.

Participants consistently described infertility as a state of profound emotional distress. The recurring expressions of pain, emptiness, and frustration reflect a lived reality in which infertility is perceived not only as a medical diagnosis but also as an existential wound. Many people described their lives as "worthless without a baby" or "having a child is a must." This deep desire for children goes beyond the biological impulse; it is linked to identity, purpose, and social belonging. The desire to start a family, as well as the desire for legacy and replication, emerged not as abstract wishes, but as moral imperatives, emotional anchors that helped couples get through years of failed treatments and social stigma. This emotional intensity drives the relentless pursuit of solutions in the medical, spiritual, and traditional domains. As Freud (1900) proposed in his theory of human behaviour, unconscious drives and repressed desires have a strong influence on conscious decision-making. In this context, "it is a must to have children" serves as a psychic imperative, a subconscious force that drives people to act despite financial constraints, medical skepticism, or social disapproval.

Participants used a variety of coping mechanisms to navigate this emotional terrain, with religious/spiritual coping being the most common. Faith in God and the belief in divine intervention provided the primary source of resilience. Phrases like "Only God can do it" and "Only prayer can open my womb" were common, reflecting a worldview in which spiritual will, rather than medical science, determines fertility. For many, hope in God replaced hopelessness in clinical outcomes, allowing them to persevere in the face of repeated failure. This type of coping was not passive resignation, but rather an active strategy of meaning-making that reinterpreted suffering as a test of faith and framed perseverance as an act of devotion. Spiritual practices such as fasting, night vigils, and pilgrimage were viewed as necessary supplements to medical treatment, with the goal of aligning the body with divine favour. This integration of faith and medicine highlights a dualistic emotional strategy: seek biological solutions while also nurturing spiritual hope.

The relationship with the partner also emerged as an important emotional axis in determining treatment options. While some couples reported stronger bonds as a result of shared suffering, others experienced increased tension, blame, and emotional distance. The psychological burden of infertility frequently disrupted intimacy, with some men withdrawing emotionally or initiating polygamous unions, exacerbating the woman's feelings of emptiness and betrayal. However, for others, the mutual love for children, even in their absence, served as a unifying force, reinforcing their commitment to continue treatment together. These relational dynamics had a direct impact on decision-making: couples with strong emotional support were more likely to pursue costly or invasive treatments, whereas those under strain frequently opted for less demanding or more spiritually aligned options that required less joint negotiation.

Self-support and personal experience were also important factors. Participants drew on past challenges and treatment experiences to inform future decisions. A failed IVF cycle, for example, may cause a woman to reject additional medical interventions in favour of spiritual healing, not because she lacks faith in science, but because she is emotionally exhausted and requires a less clinical, more compassionate approach. Similarly, a transformative experience with a traditional healer, such as an unexpected conception after years of failure, may solidify faith in herbal remedies, regardless of medical advice. These decisions are not irrational, but rather emotionally rational: they are reactions to trauma, disappointment, and the need for psychological healing.

Notably, the study found that 29% of participants drank alcohol, primarily for social and emotional reasons. While fertility specialists expressed concern that alcohol and smoking could harm reproductive health, citing research from Finelli et al. (2021) and Nyandra et al. (2022) on the negative effects of chronic use, this study found no direct negative impact on treatment adherence or decision-making. In fact, 20% of those with a history of alcohol use are now pregnant, implying that occasional drinking may not significantly impair conception in this population. However, the lack of smokers in the sample (all 40 patients were nonsmokers) limits the ability to evaluate the role of smoking in treatment decisions. Still, the emotional function of alcohol as a coping mechanism should not be overlooked. Its use, while moderate, reflects an attempt to manage the psychological stress of infertility, a silent testament to the emotional toll of the process.

When these findings are digested, it becomes clear that emotional and psychological factors are not ancillary influences, but rather key determinants of fertility care decisions. The

sentiment that pervades the infertility experience, which ranges from despair to unwavering hope, influences how people interpret medical advice, interact with spiritual systems, and navigate relational dynamics. The desire for children, framed as a must, serves as an emotional engine, propelling persistence across multiple treatment modalities. When hope in medicine fades, faith in God often fills the void; when frustration mounts, religious coping provides solace; and when emptiness threatens identity, the desire for legacy restores meaning.

Thus, in answering Research Question 1, this study confirms that treatment decisions in Ibadan are inextricably linked to the emotional and psychological realities of those making them. These decisions are not made in the absence of clinical data, but rather within a complex inner world of longing, belief, suffering, and hope. To understand why couples choose hospitals, prayer camps, or herbalists, first consider how they feel. The interplay between emotional depth and existential yearning ultimately determines their path, making the heart as important as the mind or the body in reproductive decision-making.

### ***Socio-Cultural Factors in Infertility: Religious Belief and Treatment***

#### ***Decision-Making in Ibadan, Nigeria***

. The socio-cultural dynamics embedded in religious identity, as revealed in this study, provide profound illumination for Research Question 1 (What factors influence an infertile couple's treatment decisions). The findings show that fertility care decisions in Ibadan are deeply rooted in a complex socio-cultural matrix in which religious identity, gendered

expectations, economic constraints, and communal norms all work together to shape healthcare trajectories. While medical considerations exist, they are frequently mediated, and in some cases overridden, by cultural logics that value social belonging, spiritual meaning, and familial continuity. Religion is at the heart of this decision-making landscape, serving not only as a source of comfort but also as a structuring force, influencing where people seek care, how they interpret their condition, and what outcomes they consider acceptable.

Of the 40 previously infertile participants, 75% (n=30) identified as Christian and 25% (n=10) as Muslim, with no representation from other religious traditions. This distribution reflects the dominant Abrahamic religious framework in the region, emphasizing the importance of faith in shaping personal and collective responses to infertility. The data reveal nuanced, denomination-specific patterns in treatment selection, reflecting divergent theological orientations and institutional trust. Muslim participants chose exclusive hospital-based treatment at a slightly higher rate (50%) than Christians (40%), indicating that Muslims have a higher initial confidence in medical systems. This may be attributed to doctrinal interpretations that affirm *tadawi*, the religiously sanctioned act of seeking medical cure, while reserving ultimate outcomes to *qadar* (divine decree). Christians, on the other hand, were more evenly distributed across alternative pathways: 10% pursued only spiritual interventions, 3.33% relied solely on herbal treatments, and 20% used a combination of hospital and church-based care. This reflects a more integrative approach in which institutional religion is actively woven into the fabric of reproductive health, with prayer, fasting, and divine intercession serving as co-constituting elements of healing.

Notably, no Muslim participant used only spiritual or herbal remedies, nor did any combine

hospital and church visits, implying a potential divide in Islamic practice between medical treatment and religious devotion. This is consistent with sociological observations that Muslim communities in Nigeria frequently distinguish between faith and medicine as separate but compatible domains. In contrast, Muslims (10%) have a higher rate of triadic engagement, or the simultaneous use of a hospital, herbalist, and spiritual centre, than Christians (3.33%), which calls into question assumptions about religious exclusivity. It implies that, for some, religious orthodoxy does not preclude engagement with traditional medicine, as long as it does not violate core doctrinal prohibitions. This pragmatic pluralism reflects a rational, context-sensitive epistemology that considers efficacy, safety, and perceived alignment with divine will in addition to cost and accessibility.

The concurrent use of hospital and herbal treatments, reported by 13% of Christians and 20% of Muslims, demonstrates a widespread acceptance of integrative care, especially among Muslim participants. This pattern exemplifies a pragmatic supplementation of medical authority, particularly in response to treatment delays, financial constraints, or perceived ineffectiveness. The lack of exclusive herbal use among Muslims may reflect religious caution about *sihr* (witchcraft) or unverified remedies, but their willingness to combine herbal and hospital treatments demonstrates a conditional openness based on perceived legitimacy and safety. “Initially, I used herbs, but when that didn’t work, I went to the hospital” (P11, Female, 31 years). In contrast, P33, aged 34, reported a reversal of this trajectory, turning to herbal medicine after a perceived failure of hospital-based treatment.

Beyond treatment selection, religion provides a primary framework for meaning-making and emotional resilience. All 40 participants, regardless of denomination, believed in divine sovereignty over fertility and frequently described their journey as one of surrender, patience, and spiritual testing. Clergy members unanimously reported that prayer, ritual purification, and faith-based interventions were central to their support of infertile couples, providing not only emotional comfort but also a structured narrative of hope and resilience. This is consistent with Roudsari et al. (2007), who contend that religion transforms infertility from a medical failure to a spiritual trial, restoring agency and purpose. Domar (2005) also identifies faith as a stress reliever, a function supported by participants who turned to spiritual solutions after unsuccessful medical interventions. However, relying on divine intervention can delay or prevent access to timely medical care, especially when faith is interpreted as a substitute rather than a supplement to medical treatment, a tension recognized by fertility specialists who noted the prevalence of religious reliance among their patients. A 48 year old Fertility Specialist 5 warned: “They should seek medical advice from a competent hand”

Religion, as Ellison & Levin (1998) and Greil & McQuillan (2011) argue, is more than a coping mechanism; it is a social institution that shapes moral obligations, identity, and reproductive expectations. In many Nigerian contexts, procreation is viewed as a sacred duty, while childlessness is regarded as a disruption of divine and social order. This theological imperative heightens the psychosocial burden of infertility, particularly for women, while also encouraging the pursuit of multiple solutions across systems. Some participants' integration of two or all three treatment modalities, medical, spiritual, and traditional, is not an indication

of confusion or irrationality, but rather a rational, holistic response to a condition perceived to be both physical, moral, and metaphysical. “I went to the hospital, but I didn’t see any results. Later, I switched to herbal medicine for treatment, and the decision I made then was helpful in the sense that I got pregnant after the treatment, and I thank God” (P33, Female, 34 years).

Powerful social and structural forces further shape this decision-making process. In Ibadan, infertility is experienced in the context of societal expectations that associate marriage with parenthood. Childlessness is frequently viewed as a moral or spiritual flaw, resulting in gossip, ridicule, and social exclusion. This stigma encourages secrecy and discretion, with many patients delaying or concealing treatment to avoid public scrutiny. The resulting isolation exacerbates psychological distress, contributing to depression, anxiety, and low self-esteem, according to Jirka et al. (1996), who link prolonged isolation to negative mental health outcomes. Despite societal pressure, the majority of participants reported prioritizing personal goals over external expectations, indicating a growing sense of individual agency within a traditionally communal framework. P8, a 26-year-old female, stated: “It is normal to balance it (societal expectations), but my wishes come first before society”.

Economic factors are inextricably linked with the social context. Medical interventions like IVF are prohibitively expensive, putting them out of reach for the majority of participants and leading many to cheaper, albeit unregulated, alternatives like herbalists or prayer camps.

Participants frequently cited a lack of government support for fertility care as a barrier (“the government didn’t contribute anything to my infertility treatment” (P19, female, 30 years), with participants noting that national health policies prioritize population control over reproductive assistance, which is consistent with Ezeh et al. (2012), who highlight the global tension between fertility regulation and reproductive rights. Nonetheless, familial support emerged as a critical counterforce, with many participants thanking their families for emotional and financial support while navigating treatment as indicated by P38, Female, 35 years: “My family helps me a lot, but the government didn't render any help”.

Education also has a complex role. Higher educational attainment was associated with increased health literacy and earlier engagement with medical services, but it did not preclude the use of spiritual or traditional healing. Instead, educated people frequently practiced strategic pluralism, which involved combining medical advice with faith-based or cultural practices to increase perceived chances of success. This reflects a communal decision-making model in which fertility is viewed as a collective family concern, and advice from elders or peers who had "successfully" overcome infertility was frequently valued more highly than clinical recommendations.

Peer pressure and social comparison have a further impact on care-seeking behaviour. While previous research has primarily focused on peer support (Grunberg, 2021; Lin & Shorey, 2023; O'Connell, 2021), this study identifies a new dimension: the role of peer influence in driving potentially harmful reproductive behaviours, such as early sexual exposure or abortion, which may have long-term implications for fertility. For example, P39, a 46 year old female, stated: “In my youth days, friends pressured me to consider abortion, questioning

my ability to have children in the future.” This highlights the need to broaden the discussion of peer dynamics beyond support to include risk and normative pressure.

In summarizing these findings, it is clear that religious affiliation in Ibadan serves as both a filter and a framework for treatment decisions. It restricts access to specific modalities, such as Muslims' avoidance of exclusive herbalism, while also providing a framework for interpreting illness, healing, and hope. These patterns are not simply correlations, but rather the result of deeply embedded cultural logics, institutional histories, and personal theologies. For healthcare providers, this necessitates a shift from cultural awareness to cultural competence, which means being able to engage with patients' religious worldviews as integral components of their lived experience rather than barriers to medical adherence. Communication tailoring, respecting pluralistic care pathways, and incorporating psychosocial and spiritual support into clinical practice can all help to build trust, increase adherence, and ultimately improve reproductive health outcomes.

Thus, in response to Research Question 1, this study confirms that fertility treatment decisions are influenced by a complex set of interconnected factors, with socio-cultural dynamics, particularly religious identity, serving as a primary predictor. Treatment options are more than just functional; they reflect efforts to restore social standing, fulfil moral obligations, and reconcile suffering with meaning. A truly patient-centered model of care must acknowledge the legitimacy of various healing paradigms and allow for dialogue, integration, and mutual respect across medical, spiritual, and traditional domains. Only by adopting such an inclusive, contextually sensitive approach can fertility care in Ibadan and other settings become not only effective, but also humane and empowering.

### *Medical factors in Decision-making*

This section addresses Research Question 1 (What factors influence an infertile couple's treatment decisions) by looking at how medical and treatment-related considerations serve as both a foundation and a source of contention in fertility care pathways. While socio-cultural, religious, and emotional dynamics are central to the lived experience of infertility in Ibadan, medical factors serve as the structural framework for decision-making, experiment, and re-evaluation. The findings show that, while medical care is widely accepted as a legitimate and necessary component of fertility treatment, it is not the only or dominant mode of intervention for the majority of participants. Instead, medical treatment exists within a larger ecosystem of healing practices, where its authority is both respected and conditional, based on perceived efficacy, accessibility, and alignment with personal and cultural expectations.

A key finding from the study is that participants generally understand the importance of medical evaluation and intervention. Most patients agreed that seeking medical attention for infertility is not only acceptable but also necessary, rejecting the stigma associated with clinical care. This view is echoed by the 62 year old Fertility Specialist 4, who indicated that “The odds of conception decrease as a patient’s age increases.” They recognized that infertility is a medical condition that may necessitate diagnostic testing, specialist consultation, and clinical intervention. This acceptance is, however, tempered by profound uncertainty about the outcome. Many people expressed concern about the upcoming diagnosis, fearing not only the confirmation of a pathological cause, but also the implications

of incurability or high-cost interventions like in vitro fertilization (IVF). According to P25, a 29 years old Female, "there are dangers in the tests. Like the X-ray of the stomach (HSG), it was very painful." This concern is heightened by the fact that, for a significant number of participants, the cause of infertility remains unknown despite medical investigation, a finding consistent with Heinonen & Pystynen (1983), who identify unexplained infertility as a major source of ambiguity in treatment decision-making. In such cases, the lack of a definitive diagnosis undermines trust in the medical system and allows for alternative explanatory frameworks.

Fertility specialists in the study provided clinically grounded explanations for infertility, including age, lifestyle factors (such as smoking, poor diet, and sedentary habits), infections (particularly pelvic inflammatory disease), hormonal imbalances, genetic conditions, and structural issues such as blocked fallopian tubes or fibroids. For example, Fertility Specialist 1, a 44-year-old female, opined that "evaluation gives clarity and guidance to both the specialist and the couples...." These findings are consistent with Brugo-Olmedo, Chillik, & Kopelman (2001), who emphasizes the multifactorial aetiology of infertility and the role of modifiable risk factors in its progression. Despite these medical clarifications from providers, patients frequently struggle to reconcile clinical explanations with their lived experiences, especially when treatment fails to produce results. According to participant 38, "I followed every instruction, took all the drugs, but still nothing happened, so I put my faith in God" (P 38, Female, 46 years)

The dissonance between medical logic and personal outcome is crucial. When medical interventions fail, whether through ovulation induction cycles, surgery, or assisted

reproductive technologies, many couples see the failure as a systemic shortcoming rather than a biological limitation. P11 and P33 cycled between treatments, demonstrating a dynamic and iterative decision-making process. “Initially, I used herbs, but when that didn't work, I went to the hospital,” said 31-year-old P11. P33, 34, reversed this tendency by choosing herbal medicine after medical treatment failed. Despite its scientific legitimacy, the medical system is viewed as flawed, costly, and emotionally taxing. Long waiting times, impersonal care, and high treatment costs all contribute to a fragile trust in clinical institutions, exacerbating this perception (Chambers , Adamson , & Eijkemans, 2013). In contrast, traditional and spiritual healers frequently provide immediate, definitive explanations, such as ancestral curses, spiritual attacks, or divine testing, which provide psychological closure and a sense of agency. These narratives, while not scientifically verifiable, provide meaning and hope in the face of medical ambiguities.

The temporal dimension of treatment is also important to consider when making decisions. The study discovered that the majority of participants (77.7%) married between the ages of 20 and 29, with the highest marriage age in Ibadan falling between 25 and 29 years (52.5%). Despite the social norm of early marriage to maximize fertility potential, only 15% of couples conceived within the first year of trying. Those who waited one to five years had a conception rate of 65%, while those who waited more than five years had a 20% chance. This paradox calls into question the assumption that early marriage ensures timely conception, highlighting the complex interplay between social expectations and biological reality. These findings are consistent with Moridi et al. (2019) and Brandt et al. (2019), who contend that fertility declines with age, particularly after 35, and that prolonged infertility reduces the likelihood of natural conception. However, in the context of Ibadan, this medical knowledge does not

always lead to early medical engagement. Instead, many couples postpone clinical intervention, often due to hope, financial constraints, or reliance on non-medical solutions, eventually seeking hospital care after years of unsuccessful attempts.

Crucially, treatment decisions are not linear, but rather cyclical and iterative, a phenomenon known as sequential plurality. Participants described a fluid, back-and-forth movement between treatment systems, starting with hospital-based care, moving on to spiritual or traditional healing after perceived medical failure, and frequently returning to medical treatment with renewed hope or under new providers. This fluidity reflects a pragmatic, trial-and-error approach in which each system is given a chance before being deemed ineffective. For example, a failed IVF cycle may prompt a shift to prayer camps or herbal remedies, whereas prolonged use of traditional medicine without results may necessitate a return to clinical care. This pattern demonstrates that medical treatment is not abandoned, but rather suspended, remaining a viable option in the reproductive repertoire.

Furthermore, the emotional impact of medical outcomes frequently outweighs their clinical significance. A failed treatment cycle is more than just a biological event; it represents a loss of hope, a financial burden, and a social setback. The psychological weight of failure, particularly after a significant investment of time, money, and emotional energy, has a profound impact on subsequent decisions. As one participant stated, ‘After the second failed IVF, I felt like my body had betrayed me. That’s when I began visiting the church for deliverance prayers, while further reinforcing that “I see it (not having children) as if I came into this life for nothing”. (P4, Female, 30 years)’. This approach interprets medical factors through emotional, cultural, and relational lenses rather than in isolation. The emotional toll

of failure influences the decision to continue, switch, or discontinue treatment just as much as the clinical prognosis.

Despite the limitations and frustrations that come with medical care, it remains an important reference point. When a clear diagnosis is made, such as tubal blockage or hormonal imbalance, participants tend to accept and follow medical advice, especially when it involves actionable interventions like surgery or medication. This demonstrates a conditional trust in the medical system: it is respected when it provides clarity and solutions, but quickly abandoned when it offers uncertainty or failure.

Medical and treatment factors play a complex role in shaping fertility care decisions, as do psychosocial and cultural dynamics. While medical knowledge and services serve as a foundation, patients' expectations, emotional experiences, financial capacity, and belief systems all have an impact. Treatment decisions are not solely based on clinical indications, but rather on an ongoing negotiation of scientific legitimacy, personal meaning, and social feasibility. A failed IVF cycle, an unexplained diagnosis, or the high cost of care do not just inform the next medical step; they also prompt a rethinking of identity, faith, and hope.

Thus, in response to Research Question 1, this study demonstrates that medical factors are both a starting point and a contentious domain in fertility decision-making. They spark care-seeking behaviour, shape early treatment pathways, and lend diagnostic credibility. However, their authority is neither absolute nor permanent. When medicine fails to provide answers or outcomes, people turn to alternative systems that provide not only different treatments but also different interpretations. A truly effective fertility care model must acknowledge this

complexity, recognizing that medical treatment is just one node in a larger network of healing practices, and that patient-centred care necessitates not only clinical competence but also empathy, affordability, and integration with the cultural and emotional realities of those it serves.

### *Personal Values and Preferences as Determinants of Fertility Treatment*

#### *Choices in Ibadan (Aligning with Research Question 1)*

The findings of this study show that infertile couples in Ibadan's treatment decisions are influenced not only by clinical recommendations, economic constraints, or social pressures, but also by deeply internalized personal values, preferences, and existential aspirations. These elements, coded as personal wishes, personal preference, perspective, life goal, desire to build a family, desire for legacy and replica, desire for children, and a need to have children, form the foundation for fertility care pathways. As such, they provide critical information for Research Question 1: What factors influence an infertile couple's treatment decisions? By emphasizing the independent, intentional dimension of decision-making, this analysis goes beyond structural or systemic explanations to show how people actively interpret, negotiate, and act on their infertility within the context of their identity, worldview, and life story.

The data show that treatment decisions are deeply personal and value-laden, reflecting not only pragmatic concerns but also fundamental beliefs about self, purpose, and existence. “It is my love for kids and the desire to build a family that influences my choices” (P26, Female, 25 years). Many participants saw having children as a fundamental life goal, inextricably

linked to personal identity and social meaning. Phrases like "it is a must to have children"(P27, female, 32 years old), and "without children, life has no purpose"(P21, female, 30 years) appeared repeatedly in interviews, demonstrating how parenthood is viewed as a moral imperative and existential necessity rather than just one option among many. This is consistent with the study's conceptual framework, which incorporates Freud's (1900) theory of unconscious drives and Maung's Model of Infertility Subtypes, both of which emphasize the interaction between conscious desires and deeper psychological motivations. The desire for legacy and replica, in particular, reflects generational continuity, with having children seen as ensuring one's name, bloodline, and presence live on after death. This longing goes beyond the biological and into the realms of cultural memory, spiritual fulfilment, and familial duty, reinforcing the decision to seek treatment as a form of identity preservation.

Participants' perspectives, shaped by their religious upbringing, personal experiences, and cultural socialization, served as a cognitive lens through which all other influences were filtered. Whether infertility was interpreted as a medical condition requiring clinical intervention, a spiritual trial requiring faith and prayer, or a natural fate to be accepted was heavily influenced by this internal worldview. For example, those who believed that conception was ultimately in "God's hands" frequently prioritized spiritual treatment even while receiving medical care, framing prayer as an essential component of recovery. Others, who saw infertility as a physiological disruption, were more likely to seek hospital-based interventions as their primary strategy. These perspectives did not remain static; they changed over time, often in response to traumatic experiences such as miscarriages, failed treatments, or transformative encounters with traditional or spiritual healers. This dynamic nature of belief systems highlights the non-linear, iterative journey that many couples take as they

navigate between systems of care in search of coherence between their values and hopes for resolution.

The treatment patterns observed in the sample demonstrate how personal values influence concrete decisions. A significant proportion of 17 participants (42.5%) chose hospital-based care as their primary option, indicating a preference for medical legitimacy and scientific precision. However, this does not imply a rejection of other systems. In fact, 8 participants (16%) combined hospital treatment with spiritual interventions, and 6 (15%) combined medical care with traditional herbal remedies. Only two participants (5%) used all three systems: medical, spiritual, and traditional, demonstrating a holistic, pluralistic approach to healing. Notably, 6 people (15%) chose spiritual treatment exclusively, while 1 (2.5%) relied solely on a traditional herbalist, indicating that for some, alignment with personal belief systems trumps medical endorsement. One participant chose no formal treatment at all, “I prayed at home... until God answered us” (P14, female, 29 years), remaining at home until conception, a decision she framed as an act of faith and patience that was consistent with her personal worldview rather than resignation.

Crucially, these decisions were not made in isolation from external factors, but rather through the lens of personal values. Social pressure to have children was nearly universal, but responses to that pressure varied dramatically depending on personal beliefs. Some couples refused to pursue expensive IVF due to religious or personal concerns about assisted reproductive technologies. Others rejected medical advice in favour of spiritual or traditional paths, not out of ignorance, but because such options were more in line with their understanding of the body, nature, and the divine will. This reaffirms that agency in decision-

making lies not in defiance or compliance, but in the deliberate alignment of action with belief.

In contrast to Greil et al.'s (2011) findings, which included cases of voluntary childlessness, this study found no evidence of deliberate acceptance of childlessness in the absence of medical resolution. The overarching narrative was one of relentless pursuit across multiple systems, at great financial and emotional cost, motivated by the belief that life is incomplete without children. This lack of voluntary infertility emphasizes the cultural and existential importance of reproduction in this context, where having a family is not just a personal desire, but a socially and spiritually sanctioned life goal.

These insights reveals that fertility treatment decisions in Ibadan are best understood as moral and existential projects rather than rational cost-benefit analyses. Personal values and preferences do not operate in isolation; rather, they serve as a bridge between other factors. Economic constraints, social stigma, medical advice, and religious doctrine are all interpreted through the lens of what people consider to be meaningful, authentic, and true to their sense of self. To fully answer Research Question 1, it is not sufficient to simply list influencing factors; one must also understand how those factors are lived, interpreted, and prioritized within the individual's moral universe. This study confirms that the path to parenthood is not only a medical journey, but also a deeply personal, value-driven journey in which the heart, spirit, and self are equally important as the body.

## **Research Questions 2**

### ***Psychological Stress and Coping Mechanisms in the Experience of Infertility (In Line with Research Question 2)***

This study provides a thorough and nuanced understanding of the psychological toll of infertility, as well as the complex coping mechanisms that infertile couples in Ibadan use to navigate this deeply distressing condition. In direct response to Research Question 2: What are the psychological and social experiences of people facing infertility challenges, the findings show that infertility is more than just a reproductive issue; it is a pervasive psychosocial crisis that affects identity, relationships, and existential meaning. Infertility's emotional landscape is characterized by chronic states of pain, frustration, emptiness, loss of hope, and sadness, emotions so deeply internalized that participants described them as enduring rather than episodic reactions. One woman put it succinctly: "It's a wound that never heals" (P22, Female, 25 years). This persistent emotional distress is consistent with the work of Cui (2010), whose evocative piece "Mother or Nothing: The Agony of Infertility" captures the existential devastation felt by women for whom motherhood is inextricably linked to self-worth. Similarly, Kurhan & Copoglu (2021) have shown how psychological trauma in infertility is frequently hidden beneath a veneer of social composure, manifesting as sexual frustration, isolation, guilt, and diminished self-assurance. According to Cousineau & Domar (2007), infertility is widely regarded as a devastating life event, causing suffering comparable to chronic illness or bereavement.

The cultural significance of parenthood in Nigeria adds to the severity of this psychological distress. Childbearing was consistently framed by participants as a fundamental life goal that

is essential to personal identity, familial continuity, and social legitimacy. According to P21, a 30-year old female, “I desire to have a legacy and a replica. It feels almost obligatory after marriage to conceive or have children”. This viewpoint aligns with a broad scholarly consensus: According to Isiugo-Abanihe (1994), parenthood is a mark of social honour; Goodnow (1988) defines it as physiological completion; Brothers & Maddux (2003) see it as a source of joy; Lazard, Capdevila, Dann, Locke, & Roper (2019) associate it with pride; and Belladelli, Muncey, & Eisenberg (2023) refer to it as evidence of perfect creation. For many participants, the absence of children was more than just a medical condition; it was a disruption in the natural order of life, threatening their sense of purpose, belonging, and dignity. This existential weight exacerbates the psychological toll, transforming infertility into a crisis of identity and social existence.

In response to this intense emotional turmoil, participants developed a variety of coping mechanisms that reflect both personal resilience and culturally embedded psychological survival strategies. While some people, particularly those with higher education or prior emotional literacy, practiced self-reliance and personal knowledge, using introspection, private reflection, or journaling to regulate their emotions, the vast majority relied on religious and spiritual coping as their primary psychological anchor. This finding highlights the importance of faith in the lived experience of infertility in Ibadan. Prayer, fasting, night vigils, and pilgrimage were not passive rituals, but rather active, deliberate strategies for overcoming despair and restoring hope. Expressions such as hope in God, faith in God, and acceptance of fate served as cognitive reframing tools, allowing people to view infertility as a divine test or spiritual journey rather than a personal failure. This is consistent with Jennings' (2010) argument that religion and faith play an important role in healing by providing a framework

for making suffering meaningful through endurance.

Importantly, these spiritual strategies were not incompatible with medical treatment, but were frequently integrated with it. Many participants pursued medical interventions while also attending prayer camps or visiting spiritual birthing centres, demonstrating a dualistic worldview in which medical science and divine intervention coexist. This integration reveals a sophisticated psychological negotiation, balancing empirical action with transcendent hope, allowing people to remain motivated even after multiple treatment failures. Rather than leading to disillusionment, failed interventions frequently prompted renewed spiritual efforts, indicating that faith serves as a dynamic, adaptive response to uncertainty. As one participant stated, "Each failure brought me closer to God; I believed He was preparing me for the miracle." "I believe it's not yet the right time according to God's plan." (P19, female, 30 years).

Interestingly, the study also found that a subset of participants developed a form of protective emotional withdrawal, a state of doubtful acceptance or indifference, not as a means of resolution, but as a psychological defence against future pain. This emotional detachment, while appearing passive, is actually a form of self-preservation in the face of constant disappointment. Others, on the other hand, experienced a renewed sense of gratitude and resilience, especially after conception. As Daniluk (1997) points out, post-conception gratitude is a common emotional response, and in this study, many participants expressed deep gratitude to medical providers, spiritual leaders, family members, and God, viewing their success as a miracle and validation of perseverance (Orozco-Giraldo & Harris, 2019).

These findings demonstrate the importance of structured psychosocial support in fertility care

systems. While participants demonstrated remarkable resilience through informal coping mechanisms, the study confirms that psychological counselling and support services are critical for dealing with the full range of emotional distress. According to Van den Broeck et al. (2010) and Ishaka (2021), professional counselling can provide not only emotional relief, but also cognitive tools for making treatment decisions, managing anxiety, and improving relationship dynamics. Watkins & Baldo (2004) argue that counselling should not be reserved for post-failure scenarios, but should be integrated into treatment from the start, allowing patients to process expectations, understand risks, and make informed decisions. This preventive and holistic approach is consistent with the experiences of participants, many of whom expressed a desire for more empathetic engagement with fertility specialists.

Indeed, the study reveals that fertility care providers are both medical experts and emotional stewards. Their role in providing empathetic support, fostering open dialogue, and facilitating informed decision-making is critical in reducing psychological distress. Counselling, as affirmed by Pines (1990), Grill (2023), Thorn (2009), and Ungerleider (2017), is an essential resource in infertility care, it validates patient experiences, reduces isolation, and restores agency. When combined with social support, self-care practices, and spiritual involvement, professional psychological support has the potential to transform the fertility journey from one of silent suffering to one of empowered resilience.

With these insights, it is clear that infertility psychological experiences are neither uniform nor static, but rather part of a dynamic process that progresses from acute distress to adaptive coping, influenced by cultural beliefs, relational dynamics, and personal worldview. The observed coping mechanisms, which range from religious devotion to emotional withdrawal

and gratitude, are not simply reactions, but strategic, meaning-making responses to a condition that cuts to the heart of human identity. This study confirms that treating infertility necessitates more than just medical intervention; it necessitates a compassionate, multidimensional approach that values the emotional, spiritual, and social dimensions of the human experience. Only by incorporating psychological support into the fabric of fertility care can individuals and couples be truly supported in their journey towards healing, meaning, and, if possible, parenthood.

***Socio-Cultural Factors in the Experience of Infertility (Aligning with  
Research Question 2***

This study provides a critical and nuanced examination of the socio-cultural factors that influence the psychological and social experiences of individuals and couples dealing with infertility in Ibadan, Nigeria. In response to Research Question 2: What are the psychological and social experiences of people facing infertility challenges?, the findings show that infertility is experienced as part of a complex web of familial expectations, societal norms, governmental neglect, and deeply entrenched cultural beliefs about reproduction, gender, and social worth. These socio-cultural forces do more than just influence treatment decisions; they actively shape the emotional reality of infertility, determining how people perceive themselves, how others treat them, and how they navigate the path to parenthood (Christie, 1998).

The data reveal a strong sense of abandonment among participants as a result of the lack of government support for infertility care. P2, female, 37 years declared, “My family supported me, but the government wasn’t involved in my recovery.” The vast majority of respondents

expressed frustration and disillusionment with the state's failure to recognize infertility as a public health issue, leaving individuals to bear the financial, emotional, and medical burden on their own. This lack of institutional support is seen as part of a larger sociopolitical neglect of reproductive health, particularly among women. Some participants expressed concerns about a covert global infertility agenda, citing narratives echoed in the works of Ebibola (2000) and Johnson et al. (2018) that suggest population control may be a driving force behind the systemic underfunding and marginalization of fertility services in developing countries. While such claims are speculative, they reflect a deep distrust in government and international health policies, especially in a context where rapid population growth is frequently portrayed as a national threat. Scholars such as Stohr & Taylor (1981) and Chimhowu et al. (2019) reinforce this perception by pointing out the lack of coherent population policies in many developing countries, resulting in a paradox: while population growth is feared, individuals' reproductive struggles are ignored. The state's silence on infertility thus serves as a symbolic endorsement of suffering, reinforcing the notion that those who are unable to reproduce are socially invisible and politically insignificant.

In stark contrast to governmental indifference, the study reveals the family's powerful, if ambivalent, role as both a source of support and a source of intense stress. On the one hand, many participants reported receiving encouragement, financial assistance, and emotional support from extended family members, supporting Covington's (2006) claim that familial and social networks are critical in mitigating the distress of infertility. In a collectivist society like Nigeria, where lineage and kinship are central to identity, family involvement can serve as an important barrier to isolation. However, this support is frequently conditional and gendered. Women, in particular, face intense scrutiny and pressure to conceive, with some reporting that

family members urged them to accept polygamous marriages or even illegal abortions in an attempt to "reset" fertility, practices that can jeopardize reproductive health (Reagan, 2022). These harmful interventions, which are frequently justified by traditional beliefs or misinformation, demonstrate how family involvement can perpetuate cycles of stigma and medical risk.

Furthermore, the study demonstrates how societal norms surrounding parenthood serve as invisible but powerful regulators of individual behaviour. In a culture where fertility is associated with maturity, success, and divine blessing, being childless is more than a personal challenge; it is a social deviation. This normative pressure manifests itself in shame, social isolation, guilt, and depression, as participants described being excluded from family gatherings, mocked in public, or blamed for marital instability. These emotional consequences are not unintended, but rather structurally produced, rooted in a social order that views biological reproduction as the ultimate indicator of adult legitimacy. Many people view infertility as a personal failure because they have internalized these norms, even if the cause is medical or shared by partners.

The impact of peer dynamics and societal misinformation exacerbates these challenges. The study discovered that peer pressure frequently encourages early sexual activity and unsafe reproductive practices, such as clandestine abortions, in adolescents and young adults. These decisions, made under social pressure and without adequate education, can have long-term effects on future fertility. This reflects a larger failure in reproductive health education and youth empowerment, where cultural taboos prevent open discussion about sexuality, making young people vulnerable to misinformation and risk. The lack of community-based programs

that promote inclusion and reduce stigma, such as those advocated by Husain and Imran (2021), means that infertile people frequently suffer in silence, with no access to spaces where their experiences are validated and their dignity affirmed.

However, within this constrained social landscape, the study identifies agency. Participants showed that, while societal pressure is pervasive, it is not absolute. Some people consciously chose to defy dominant norms by prioritizing personal desires, values, and life goals over external expectations. “I think my wishes should come first before society’s norm” asserted a 33-year-old female (P40). This act of resistance, whether by rejecting polygamy, refusing coercive treatments, or embracing child-free living (though uncommon in this cohort), demonstrates a growing sense of self-determination. It implies that, while sociocultural forces are strong, they are not deterministic. Individuals can and do reinterpret or reject societal mandates that contradict their internal beliefs, especially when supported by spiritual conviction, partner solidarity, or access to alternative narratives.

Fusing these findings reveals that the psychological and social experiences of infertility in Ibadan are inextricably linked to the cultural, familial, and political contexts in which they occur. Participants' distress is not solely caused by biological infertility, but also by structural neglect, gendered stigma, and cultural imperatives that equate human value with reproductive capacity. Simultaneously, resilience emerges from familial support, spiritual meaning-making, and personal agency. This dichotomy, between oppression and resistance, isolation and connection, defines the lived reality of infertility in this context.

To address the psychosocial impact of infertility, interventions at the individual level are

insufficient. It necessitates a societal reimagining that includes government funding for accessible fertility care, public education to combat stigma, community integration programs, and culturally sensitive reproductive health policies. Only by confronting the socio-cultural causes of infertility-related suffering can we establish a more just, inclusive, and compassionate framework for reproductive well-being. This study confirms that infertility is a social experience rather than a medical condition, revealing the society's deepest values, contradictions, and hierarchies.

### *The Emotional and Religious Significance of Suffering as a Sacred Struggle*

This study presents the psychological experience of infertility as a complex phenomenon that goes beyond clinical definitions of depression or anxiety. It is characterized as a profound emotional journey situated within a spiritual framework, where elements of suffering, endurance, and divine timing are intricately connected. Participants experienced pain, frustration, and emptiness, which they interpreted through a religious framework that provided them with meaning. “I believe it’s not yet the right time according to God’s plan.” Reported P19, female, 30 years old. Many individuals conceptualize infertility not merely as a biological misfortune, but as a test from God, a means of spiritual refinement, or a divine delay that necessitates patience and faith. This reframing shifted emotional distress from an indicator of personal failure to a marker of spiritual election, allowing individuals to withstand prolonged treatment failures without total psychological collapse.

The integration of emotional and spiritual dimensions is particularly important in contexts where religious institutions play a central role in social life and moral identity. Prayer, fasting, and night vigils functioned as essential emotional tools, serving as structured practices that

imparted rhythm, purpose, and hope. The act of praying is characterized as both a request for conception and a daily reaffirmation of faith, serving as a means to sustain psychological balance amidst uncertainty. Expressions like “hope in God” and “faith in God” represent not passive sentiments but active assertions of agency, serving as cognitive buffers against despair.

This religious framework did not negate emotional pain; instead, it sanctified it. Participants reported tears during prayer and feelings of abandonment by God, yet they returned to the prayer-altar with renewed sense of determination. This dialectic between doubt and devotion, anguish and affirmation, illustrates a complex emotional landscape where psychological distress is recognized and transcended through spiritual narrative. The study indicates that the emotional effects of infertility are not alleviated by religious beliefs; rather, they are recontextualized, shifting from a private shame to a public, spiritually interpretable experience. This insight critiques Western medical models that frequently categorize religious coping as avoidance, instead recognizing its function as a culturally coherent and psychologically adaptive response.

***Personal Agency and Decision-Making: Choice as a Form of Moral Resistance***

This study reveals that, in a social context where infertile individuals, particularly women, are frequently viewed as passive victims or objects of pity, infertile couples actively assert their personal agency. They frame their decisions as acts of moral resistance and self-determination. Participants characterized their fertility journeys as intentional and guided by

personal values, rather than as a result of coercion from family or tradition. According to P36, a 43-year-old female stated, “I believe God will do it.” Their choices regarding IVF, traditional healing, or reliance on prayer were not arbitrary or desperate; rather, they represented intentional expressions of identity, belief, and worldview.

Agency manifested not only in the decisions made but also in the justifications provided for those decisions. Certain couples declined IVF due to religious beliefs, despite its medical validity, claiming that “man should not play God.” Some individuals declined medical treatment, not due to a lack of understanding, but because they perceived their bodies as having been “defiled” by prior interventions, necessitating spiritual cleansing. These decisions exemplify moral agency, highlighting the prioritization of individual values over institutional authority. In instances where participants utilized multiple treatment systems, the integration was deliberate and thoughtful, rather than disorganized or based on superstition. A woman stated, “I go to the hospital for scans, but my healing comes from the mountain of prayer,” “Prayer did the magic” (P37, Female, 30 years), indicating a nuanced understanding of epistemological pluralism.

This redefinition of decision-making as moral resistance represents a significant advancement. The focus transitions from compliance with medical advice or deviation from medical norms to ethical navigation. Participants were selecting between differing perspectives on healing, dignity, and authenticity, rather than between “science” and “faith.” Their agency, while not absolute, was constrained by factors such as cost, gender norms, and social pressure; nonetheless, it remained real, persistent, and deeply intentional. The psychological experience of infertility is characterized not by helplessness, but by ongoing negotiation, wherein each

decision serves as an assertion of self in response to existential threat.

***The Influence of Unforeseen Outcomes: When Conception Transforms into  
a Miracle***

This study reveals a significant insight regarding the psychological and social changes that take place when infertility is unexpectedly resolved, especially after a period marked by despair, treatment failure, or resignation. For numerous participants, achieving pregnancy after prolonged challenges represented not just a medical occurrence but a profound existential shift, a pivotal moment that restructured their entire narrative of suffering. The unexpected outcome was interpreted not as luck or biological correction, but rather as a miracle, divine intervention, or a reward for faithfulness.

This reframing yields significant psychological implications. Participants reported a significant shift from pain and emptiness to feelings of overwhelming gratitude, vindication, and spiritual renewal. The emotional burden of infertility did not merely disappear; it was transformed. According to P37, a 30-year-old female. “I never thought I would conceive, but one day I discovered I was pregnant. I cried and thanked God”. This sentiment illustrates a narrative transformation in which suffering is reinterpreted as preparation and delay is viewed as divine wisdom.

Furthermore, unforeseen outcomes altered the established social hierarchies of blame. Women previously labelled as “barren” or “cursed” underwent a significant restoration of their social status. Their pregnancies were recognized not only as individual achievements but also

as societal validations of value. In certain instances, an unborn child may already possess intended names that signify a prolonged struggle with infertility, such as “Oluwaseun” (God I thank you) or “Oluwafunmilayo” (God has given me joy), thereby integrating the miracle into identity and lineage.

The psychological importance of unforeseen results resides in their ability to reshape personal narratives. Infertility narratives generally depict a progression of loss and desire; however, when conception takes place unexpectedly, the narrative transforms into one of redemption. This insight contests linear models of psychological recovery, proposing that healing in infertility occurs not gradually, but through event-based triggers, specifically a singular, transformative moment that reorganizes memory, identity, and social belonging.

### ***Identity and Role Transition: The Existential Restoration of Motherhood***

The most significant psychological experience identified in this study is the transition from non-mother to mother, viewed not only as a change in social role but also as an act of existential restoration. In Ibadan's cultural context, motherhood is an essential aspect of adult identity, particularly for women. Being childless results in an ontological state of ambiguity, positioning one as neither fully a woman nor a complete member of the community. Participants reported sensations of being “incomplete without a child,” suggesting that infertility was perceived not merely as a medical issue, but as a fundamental disruption in existence.

The process of becoming a mother was not merely about obtaining a child, but rather about rediscovering one's identity. Pregnancy and childbirth are not mere endpoints; rather, they serve as rites of passage that facilitate the restoration of wholeness. One participant expressed this transformation: "I was a woman before, but now I am a complete woman, I believe children are the joy of marriage..." (P5, female, 27 years)" This distinction highlights the significance of motherhood as a process of ontological fulfilment, marking a shift from marginality to complete social and spiritual identity.

The transformation of identity was accompanied by a reconfiguration of relational dynamics. Women previously excluded from family events or subjected to public mockery reported experiencing acceptance, respect, and being sought for advice following childbirth. Some characterized their children as "healers" who "repaired the fractured aspects" of their lives. The maternal role served as a restorative identity, enhancing personal self-worth, social standing, and familial harmony. The transition to motherhood frequently coincided with the development of a new spiritual identity. Numerous women characterized themselves as "chosen" or "anointed," viewing their prolonged struggle as a form of preparation for a distinct type of motherhood. This indicates that the psychological resolution of infertility involves more than merely the cessation of suffering; it entails the development of a transformed self that incorporates past pain into an enhanced identity. The social experience of infertility extends beyond stigma; it should also be viewed as a delayed rite of passage, the successful navigation of which fosters a deeper and more resilient sense of belonging. Motherhood is not merely a desired outcome; it represents the pinnacle of psychological and social restoration.

### **A Comprehensive Examination of the Infertility Experience**

The six themes: Psychological Stress and Coping Mechanism, Socio-cultural Factors, Emotional and Religious Impact, Personal Agency and Decision Making, The Impact of Unexpected Outcomes, and Identity and Role Transition: Motherhood, illustrate a psychological and social landscape that is significantly more intricate than previously recorded. Infertility in Ibadan is a dynamic condition influenced by faith, agency, narrative, and identity. The emotional distress it induces is significant and deep-rooted; however, individuals also develop pathways of resilience, reinterpretation, and transformation in response.

This study proposes a novel framework in which infertility is perceived not as a deficiency, but as a transformative experience that tests identity, deepens faith, and ultimately restores personhood. The text advocates for a transformation in research and practice: transitioning from pathologising patient choices to respecting their moral reasoning; reframing infertility from a medical failure to a social and spiritual crisis; and shifting the focus from mere conception to supporting the comprehensive existential experience of individuals facing it.

This research addresses Research Question 2 comprehensively and redefines the terms used to understand the psychological and social aspects of infertility in culturally diverse, resource-limited contexts.

## **Implications of the Research Study**

### **Research Question 1:**

#### ***Psychological Factors Influencing Choice of Treatment***

Implications:

The findings revealed that negative emotions such as pain, sadness, frustration, emptiness and stigma are strong factors that determine the choices of fertility treatment among couples. This suggests that:

a.) By recognizing diverse treatment modalities' emotional and psychological impacts, healthcare professionals can deliver more empathetic and patient-centred care. Furthermore, comprehending the psychosocial experiences of patients can facilitate the creation of more effective interventions to enhance their mental well-being and ultimately enhance their decision-making process. This comprehensive approach, as corroborated by Mourad et al. (2010), can ultimately enrich patient outcomes and satisfaction with their care

b.) The research results provide individuals and couples with essential information to enable them to make well-informed decisions about their infertility treatment. When individuals are cognisant of the psychosocial implications of their decisions, they are better prepared to weigh the advantages and disadvantages of a variety of treatment options and make decisions that are consistent with their emotional well-being,

preferences, and values. This information has the potential to enable individuals and couples to advocate for themselves within the healthcare system and guarantee that their emotional well-being is prioritised throughout their infertility journey. This process can be navigated with greater confidence and resilience by individuals and couples who comprehend the psychosocial components of infertility treatment.

#### Supporting Evidence from the Study:

Participants acknowledge that the inability to conceive or have children can lead to feelings of pain, emptiness, frustration, and loss of hope. Some of them endure feelings of sadness, hopelessness, and despair. The findings correspond with earlier studies by Sezgin, Hocaoglu, & Guvendag-Guven (2016), Wischmann (2008), and Sheriff (2019), which identified a complicated social dilemma that is emotionally distressing, psychologically challenging, and painful for the majority of infertile couples.

#### ***Medical and Personal Values in the Choice of Treatment***

##### Implications:

Central to decision-making are the considerations related to trust in medical options, limitations of alternative treatment options, and the efficacy of counselling services, alongside individual perspectives and beliefs.

a.) Armed with this essential information, healthcare providers can tailor their strategies to address the unique needs, preferences, and concerns of each individual or couple, offering counselling, support services, and resources that align with their psychological, social well-being and preferences.

b.) The evaluation of research results highlights the importance of enhanced support services for individuals undergoing infertility treatment. This may improve patient satisfaction and overall success rates in fertility treatments. Healthcare professionals can strive to provide more comprehensive care for individuals and couples undergoing infertility treatment by acknowledging the significance of mental health support in this process. This may include providing educational materials, alternative treatments, support groups, and counselling to mitigate psychological and social stressors and promote emotional well-being.

#### Supporting Evidence from the Study

The study found that 42.5% of participants chose a hospital for infertility treatment, while 15% sought spiritual treatment. A small percentage used a combination of hospital and spiritual guidance. Only 5% used all three methods. This demonstrates the range of treatment choices used by couples facing infertility. The results align with the literature review, highlighting awareness of diverse treatment options (Blakemore, Bayer, Smith, & Grifo, 2020), individual preferences (Uriko, 2020; Montgomery & Terrion, 2023), local treatment availability (Morshed-Behbahani, 2020), and counselling from family or friends (Passet-Wittig and Greil, 2021; Shreffler, 2020) as determinants of treatment decisions.

### *Socio-cultural, Behavioural and Religious Factors*

#### Implications

Factors such as age, peer pressure, the aspiration for a legacy, a profound desire for children, and religious considerations significantly impact couples' decisions regarding infertility treatment. Based on this

a.) Integrating health counselling and awareness campaigns into clinical practice guidelines enables healthcare providers to recognize the significance of psychosocial support as an essential component of comprehensive infertility care.

b.) In addition, the provision of education and training to healthcare providers on how to effectively address the physical, social and religious needs of individuals and couples who are experiencing infertility can enhance patient outcomes and overall satisfaction with care. Healthcare professionals can better assist their patients on their path to parenthood by encouraging a more comprehensive approach to infertility treatment.

#### Supporting Evidence from the Study

The research findings indicate that early marriage does not mitigate the risk of infertility in patients, contrasting with Moridi et al. (2019), who argue that the likelihood of natural conception significantly declines for both men and women as age increases.

Participants frequently express a readiness to surrender control to God and accept the challenges posed by infertility. This perspective is supported by Nouman & Benyamini

(2019), who argue that procreation is often viewed as a sacred duty or divine mandate across various cultures and religions.

## **Research Question 2**

### ***Psychological and Social Experiences of Persons who have Infertility Challenges and Those Who Treat Them.***

#### **Implications**

This study confirmed the diverse psychosocial effects associated with fertility treatment choices, encompassing disease-related conditions such as depression, heartbreak, and suicidal tendencies, as well as non-disease psychosocial effects including sadness, emotional distress, poor mood, diminished social life, strained relationships, low self-esteem, and reduced quality of life. These findings are consistent with the theoretical framework of this study, which highlights both disease and non-disease components of infertility as articulated by Maung (2019). These results have the following implications:

a.) Healthcare providers can enhance shared decision-making by addressing the psychological and social implications of treatment options, providing accurate and reliable information, and supporting couples throughout the decision-making process.

b.) This study has implications for improving patient-centred care, strengthening support services, enabling informed decision-making, addressing stigma and psychological distress, and advancing policy and practice in infertility care. Healthcare providers and policymakers must

recognise and address the psychosocial needs of individuals and couples undergoing infertility treatment to foster comprehensive and empathetic care. This can be accomplished by enhancing access to psychological services, support groups, and educational resources. By focusing on patients' emotional well-being, healthcare providers can improve overall outcomes and patient satisfaction in infertility treatment. This strategy will enhance the overall welfare of all individuals impacted by infertility

c.) Furthermore, the results of this research can offer a glimpse into the psychological anguish and stigma that individuals who are experiencing infertility challenges face. Healthcare providers can provide their patients with more comprehensive support during the infertility treatment process by addressing these psychosocial aspects, which will ultimately result in improved outcomes and overall well-being. Further, the promotion of empathy and understanding within society can be facilitated by increasing awareness of the emotional challenges associated with infertility, thereby reducing stigma.

d.) Healthcare institutions and organisations can utilise research findings to develop and execute comprehensive support programs that address the diverse psychosocial needs of individuals and couples experiencing infertility challenges by offering impartial assistance, customize their counselling and support strategies, recognising the experiences of individuals, and advocating for the provision of mental health services that are easily accessible

e.) The adoption of research evidence by policymakers and healthcare organizations can be used to advocate for strategies that value psychosocial support, promote fair and equal access to medical care, and address the broader social and cultural factors that affect infertility experiences.

#### Evidence from the Study

Participants indicated that infertility often leads to psychological distress, characterised by emotions including sadness, pain, frustration, emptiness, and hopelessness. The challenges identified align with those documented by Cui (2010), who articulated the difficulties faced by infertile women in the article “Mother or Nothing: The Agony of Infertility.”

Kurhan & Copoglu (2021) posited that numerous women experiencing infertility hide psychological challenges stemming from significant emotional trauma.

This study addressed the identified gaps, as illustrated in Table 5. This table highlights how the study not only responds to under-researched areas but also advances knowledge through a culturally sensitive, methodologically robust, and human-centred approach to understanding infertility in a low-resource.

#### *Additional Insights and Implications*

The study reveals two unique and interconnected implications that considerably enhance comprehension of infertility in the Ibadan context: the gendered burden and the spiritual gaze. This work demonstrates that the experience of infertility in southwestern Nigeria is profoundly influenced by patriarchal norms that disproportionately assign blame, shame, and emotional labour to women. Although global infertility research frequently emphasizes

biomedical or psychosocial dimensions, the near-total absence of men among infertile participants (1:39 ratio) dramatically illustrates this imbalance. Simultaneously, the study introduces the concept of the spiritual gaze, a culturally embedded interpretive framework that transforms infertility from a medical condition to a moral or divine signifier. This scrutiny is rooted in religious and ancestral worldviews, especially for women. Collectively, these dynamics reveal the co-construction of the lived reality of infertility in Ibadan by gender and spirituality, providing innovative theoretical and empirical contributions that challenge dominant, secular, and gender-neutral models in reproductive health research.

***Gendered Burden: Reconfiguring Infertility as a Feminine Crisis in the  
Socio-Cultural Landscape of Ibadan***

Infertility is biologically a shared reproductive condition; however, this study demonstrates that women in Ibadan bear its social weight disproportionately. This gendered asymmetry is a significant departure from the global literature, which increasingly portrays infertility as a couple-level issue. In Ibadan, cultural scripts establish maternity as the foundation of womanhood, which results in infertile women being socially incomplete, morally suspect, or even spiritually compromised. Male partners, despite occasionally acknowledging their own biological contribution, rarely confronted comparable stigma, whereas participants consistently described experiences of marital instability, social ostracism, and internalized shame. Family expectations, community gossip, and institutional reticence actively perpetuate this gendered burden, which is not merely a vestige of tradition. The uniqueness of this research is its examination of the convergence of economic insecurity, patriarchal kinship structures, and restricted access to reproductive healthcare, which exacerbates the vulnerability of women,

even though men are afforded greater social protection when they deal with infertility. The study disrupts universalizing assumptions in global reproductive health discourse and emphasizes the urgent need for gender-responsive interventions that recognize infertility not as a neutral medical condition, but as a deeply gendered social ordeal, by centring women's lived narratives within Ibadan's specific cultural milieu.

A compelling empirical manifestation of the gendered burden that permeates both the lived experience and scholarly investigation of infertility in Ibadan is the overwhelmingly low participation of men, just one male among 40 previously infertile participants (a ratio of 1:39). This stark disparity is not merely a statistical anomaly; it is a reflection and reinforcement of a deeply ingrained social norm that culturally codes infertility as a female issue, irrespective of its biomedical origin. The systemic disengagement of men from the emotional, diagnostic, and therapeutic dimensions of infertility is indicated by their near-absence from clinical and research spaces. This disengagement is facilitated by sociocultural structures that shield men from stigma while placing the full burden of reproductive failure on women. As a result, fertility research in this context is at risk of perpetuating this asymmetry, resulting in the production of knowledge that is heavily reliant on the experiences of women and obscures the perspectives, responsibilities, and vulnerabilities of men. This discrepancy not only distorts the evidence base but also obstructs the development of interventions that are couple-centered and inclusive. The 1:39 participation ratio thus reveals a critical blind spot in both clinical practice and academic inquiry: infertility will continue to be misinterpreted as a woman's crisis until male involvement is actively encouraged and normalized. This misinterpretation perpetuates gendered inequities and restricts the efficacy of reproductive health programs in Ibadan and similar sociocultural settings.

## **Spiritual Gaze: The Moral Surveillance of Infertility through Religious Interpretation in Ibadan**

This study introduces the concept of the "spiritual gaze" to capture a unique mechanism through which infertility is interpreted, judged, and managed in Ibadan. This mechanism is the pervasive tendency to define childlessness as a spiritual failing or divine punishment rather than a biomedical condition. In an effort to elucidate infertility, both Christian and Muslim participants, as well as clergy and traditional healers, frequently appealed to the concepts of ancestral curses, demonic affliction, or divine testing. This resulted in a form of moral surveillance that was deeply rooted in religious cosmology, particularly for women. In contrast to secular biomedical models, which attribute infertility to the body, the spiritual gaze attributes it to the soul, character, or lineage, thereby transforming reproductive outcomes into indicators of moral value. This study is innovative in that it illustrates the role of this gaze in shaping treatment trajectories, influencing marital decisions, and exacerbating psychological distress through internalized guilt. It also functions as a lived regulatory force, in addition to a belief system. For example, it prioritizes prayer over clinical care. The study is particularly significant in that it demonstrates that even individuals who seek hospital-based care frequently do so in conjunction with spiritual interventions, thereby illustrating a pluralistic health-seeking behaviour that challenges the secular–religious binary. This work provides a nuanced counterpoint to Western-dominated infertility scholarship that frequently marginalizes spiritual ontologies by theorizing the spiritual gaze as a culturally specific form of epistemic and moral

framing. It contributes to the understanding of how religion mediates embodied experience in African contexts.

### *The Psycho-Emotional Toll and its Alignment with Psychoanalytic Theory*

The psycho-emotional toll documented in this study, marked by profound grief, chronic anxiety, diminished self-worth, and a pervasive sense of existential emptiness, resonates strongly with core tenets of psychoanalytic theory, particularly Freud's (1900) assertion that unconscious drives, particularly those related to desire, identity, and relational fulfilment, fundamentally shape emotional experience. Participants' narratives revealed that infertility was not only a reproductive challenge, but also a disruption of deeply internalized life scripts: the inability to conceive was perceived as a failure to fulfil a socially and psychically mandated role, motherhood, triggering what Freud might call an ego ideal crisis. The overwhelming desire for progeny, described as a "must," a "legacy," or a "replica of self," is consistent with psychoanalytic ideas about the unconscious investment in procreation as a type of immortality, continuity, and narcissistic completeness (Raphael-Leff, 2010)

Furthermore, the internalized shame and self-blame exhibited by many women are the result of a harsh superego, which is exacerbated by cultural and familial expectations that equate biological fertility with moral value. This psychic conflict, between the ego's reality (infertility) and the id's steadfast desire for parenthood, is managed by a culturally punitive superego and displays in symptoms similar to melancholia: withdrawal, rumination, and a shattered sense of self. Significantly, participants' dependence on spiritual coping (e.g., "God's timing") might be read not only as faith, but also as a symbolic resolution of this inner turmoil, a technique to project unmet wants onto a higher order and therefore maintain mental stability.

Thus, the study's findings confirm that the emotional devastation of infertility in Ibadan is deeply structured by unconscious dynamics, thereby validating psychoanalytic theory as a powerful lens for understanding the subjective depth of reproductive loss in contexts where parenthood is psychically and culturally enshrined as existential fulfilment.

### ***Barriers to Decision-Making***

In the context of Freud's psychoanalytic framework and Maung's illness vs non-disease model of infertility, obstacles to making informed and appropriate treatment decisions develop at the junction of unconscious inner conflict and social classification. Unresolved intrapsychic tensions, such as repressed desires for progeny, internalised societal expectations, and the ego's struggle to reconcile reality with the id's primal longing for legacy, can distort logical thinking, causing people to prioritise symbolic or spiritual resolutions over evidence-based medical interventions. Simultaneously, Maung's framework complicates decision-making by emphasising how infertility is frequently ambiguously classified: when perceived as a "non-disease" (e.g., a spiritual trial, fate, or moral failing rather than a biomedical condition), individuals may delay or reject clinical care in favour of prayer, traditional remedies, or resignation, particularly in contexts where medical infrastructure is underfunded or culturally mistrusted. As a result, these models reveal that optimal decision-making is hampered not only by material constraints such as cost and access, but also by deeply ingrained psychological dynamics and culturally mediated understandings of illness. These factors collectively blur the line between pathology and personal identity, limiting the capacity for fully informed reproductive choices.

*Integration of Care Systems: Negotiating Tension and Synergy among  
Medical, Traditional, and Spiritual Pathways*

This study reveals that infertility care in Ibadan is rarely confined to a single epistemic domain; rather, individuals navigate a dynamic, and often contradictory, triad of medical, traditional, and spiritual systems. These pathways are far from operating in isolation; rather, they intersect in a manner that generates both tension and synergy, reflecting a pragmatic pluralism that is influenced by economic constraints, cultural logic, and existential need. This study is unique not only in documenting this diversity, but also in theorizing the "spiritual gaze" as a central, ambivalent force that serves as both a coping mechanism and a barrier to medical compliance, a duality that profoundly shapes treatment trajectories and psychosocial outcomes.

On the one hand, the spiritual gaze, which defines infertility as a moral, ancestral, or divine issue, provides significant psychological alleviation. Spiritual frameworks provide people with agency, purpose, and hope when they face diagnostic ambiguity, therapeutic failure, or the dehumanizing aspect of clinical surroundings. By redefining infertility as a spiritual trial with a redemptive trajectory, prayer, prophetic declarations, and rituals alleviate helplessness and maintain emotional endurance, rather than as a biological fate. This is because the spiritual gaze functions as a culturally resonant coping strategy, enabling individuals to maintain their self-worth in the presence of social stigma and to place their suffering within a teleological narrative of divine purpose.

However, the same gaze can inhibit timely or consistent engagement with medical care. When infertility is viewed largely as a result of spiritual disobedience, ancestral wrath, or demonic

attack, therapeutic interventions may be postponed, deprioritized, or selectively adopted after spiritual channels have been explored. Some individuals reported discontinuing medical treatment after a clergy member told them to "trust God alone," demonstrating how the spiritual gaze can override clinical rationality and promote therapeutic noncompliance. Furthermore, the moralization inherent in the spiritual gaze, particularly its tendency to associate childlessness with sin or spiritual weakness, exacerbates shame, particularly among women, and can discourage open communication with healthcare providers about concurrent spiritual or herbal treatments, jeopardizing care safety and continuity.

Crucially, the study concludes that integration is not necessarily harmonious. While 10% of Muslim and 3.33% of Christian participants used all three systems simultaneously, a practice known as "pragmatic holism," this integration frequently occurs without coordination, risking pharmacological interactions (e.g., between herbal tonics and fertility drugs) or conflicting prognostic timelines (e.g., a healer promising conception in 40 days while a clinic outlines a six-month protocol). However, rather than dismissing this as unreasonable, the study views such navigation as a culturally rational response to a fragmented healthcare landscape in which medicine provides technical remedies but little existential comfort. As a result, the spiritual gaze arises as a mobile hermeneutic instrument, depending on the emotional and social environment, to comfort, explain, resist, or reconcile.

The study's theoretical and practical uniqueness stems from the dual role of the spiritual gaze, which is both palliative and obstructive. It defies reductive binaries that depict spirituality as either "backward" or "benign," presenting it as a constitutive part of Ibadan's health-seeking behaviour. The findings thus call for fertility care models that seek to dialogically integrate

spiritual engagement rather than eliminate it, such as culturally attuned counselling, interdisciplinary referral networks, and provider spiritual literacy training, transforming potential conflict into collaborative care.

### **Recommendations for Application**

The study's findings highlight the critical need for a transformative, multi-level approach to fertility care in Nigeria, particularly in urban areas like Ibadan, where individuals and couples must navigate a fragmented, inequitable, and often stigmatizing reproductive health landscape. To translate research insights into meaningful impact, recommendations must be realistic, institutionally targeted, and contextually grounded, as well as aligned with the roles and responsibilities of key stakeholders such as national and local health policymakers, healthcare providers, fertility clinics, traditional and faith-based institutions, professional regulatory bodies, and community organizations. The researcher offers a coherent and strategically focused collection of practical, appropriate, and systemically pertinent recommendations derived from the study.

### **Policy and Practice Recommendations for the Ministry of Health, Hospital Administration**

#### ***Policy Reform and Health-System Integration***

The Nigerian Ministry of Health, in collaboration with the National Primary Health Care Development Agency (NPHCDA) and state health departments, must prioritize the

inclusion of infertility services in the national reproductive health framework. Despite its significant psychosocial and demographic implications, infertility care is currently under-represented in public health programming. Policymakers in the health sector such as: health professionals in charge of the health systems; regional, state and local government directors of the health ministry; directors of primary health care at the local government level; health professionals working with specific programs in the health ministry; staff and consultants involved in public health issues within the health ministry; programme/project managers under the health ministry; chief executive officers of civil society groups, including non-governmental organizations; leaders of national health-based associations for example, Nigerian Medical Association; National Association of Nigeria Nurses and Midwives; and Pharmaceutical Association of Nigeria and Politicians at all levels; should develop and implement national guidelines on infertility care that recognize the pluralistic nature of treatment-seeking behaviours and promote the integration of medical, traditional, and spiritual care pathways within a coordinated referral system (Donisi, 2022; Iordachescu, 2021). This includes advocating for increased insurance coverage for fertility treatments and related mental health services, particularly through the National Health Insurance Scheme (NHIS), to address the critical financial barriers identified in this study (Wang, 2022). Given that cost is a major impediment to timely medical intervention (Zimmer et al., 2019), public hospitals and accredited private fertility centres should test subsidized ART packages and means-tested funding models.

### ***Establishment of Culturally Competent and Patient-Centred Fertility Services***

Fertility clinics and reproductive health centres, both public and private, must adopt a patient-centered care model, respecting individual values, beliefs, and lived experiences (Kiełek-Rataj et al., 2020; Ishaka, 2021). This necessitates more than technical proficiency; all healthcare providers, including gynaecologists, reproductive endocrinologists, embryologists, nurses, and counsellors, must receive cultural competency training in order to engage respectfully with patients who use traditional or spiritual healing (Donisi et al., 2022). The Medical and Dental Council of Nigeria (MDCN) and professional associations such as the Association of Obstetricians and Gynaecologists of Nigeria (AOGN) should lead training programs that include modules on religious beliefs, indigenous healing practices, and stigma reduction. To address the emotional burden of infertility, clinics should formalize psychosocial support services such as on-site counselling, peer-led support groups, and access to mental health professionals (Wischmann, 2008; Thorn, 2009; van den Broeck et al., 2010). These services should be standardized and funded as part of comprehensive reproductive care, rather than as optional addenda.

### ***Collaboration among different professions and sectors***

To address care fragmentation, fertility specialists, traditional healers, and religious leaders, all key actors in the fertility care ecosystem, should form collaborative care networks. The Oyo State Ministry of Health, in collaboration with the Nigerian Traditional Medicine Board and recognized faith institutions (such as the Christian Association of Nigeria and Jama'atu Nasril Islam), should organize dialogue forums and joint workshops to promote

mutual understanding, clarify roles, and develop shared referral protocols. Such collaboration does not imply endorsement of unproven treatments, but rather recognizes the reality of pluralistic care-seeking and provides opportunities for early medical engagement, harm reduction, and patient education. Traditional healers and pastors, for example, could be trained to identify red flags (e.g., prolonged treatment without results, harmful practices) and refer patients to medical services while maintaining trust (Bartelink, le Roux, & Levinga, 2017; Hiadzi & Boafo, 2020). Similarly, fertility clinics may provide spiritual care liaison services to assist patients in integrating faith-based coping strategies into evidence-based treatment plans (Ellison & Levin, 1998; Domar et al., 2005).

### ***Community Engagement and Advocacy***

Local non-governmental organizations (NGOs), patient advocacy groups (such as Fertility Awareness Nigeria), and faith-based organizations should be empowered to act as community advocates for reproductive health equity. These organizations are best suited to provide peer support, conduct outreach, and advocate for policy change at the local level. Collaboration with academic institutions can improve data collection, program evaluation, and rights-based advocacy (Dixon-Mueller, 1993). Furthermore, legal reforms should be pursued to protect infertile individuals' reproductive rights, including anti-discrimination policies in marriage, employment, and inheritance—areas where stigma is most prevalent (Dyer, 2007; Ullah et al., 2021).

### *Politically Feasible Recommendations*

Political leaders in Nigeria, particularly members of the National Assembly, federal ministers, and the President, have the constitutional authority and institutional capacity to implement transformative reproductive health policies, including the long-overlooked area of infertility treatment. Based on the study's findings and aligned with national development priorities, a series of targeted, actionable, and politically feasible recommendations can be advanced to ensure that infertility is no longer viewed as a private misfortune, but rather as a public health imperative requiring systematic intervention.

The President of the Federal Republic of Nigeria, in collaboration with the National Assembly, should advocate for the creation and passage of a "National Infertility Care and Support Bill". This legislation would formally recognize infertility as a treatable medical condition under the 2014 National Health Act and require the integration of essential fertility services into the public health system. It would necessitate the inclusion of basic diagnostic and therapeutic interventions such as semen analysis, ovulation induction, hysterosalpingography, and laparoscopy in the National Health Insurance Scheme's (NHIS) Minimum Health Care Package. Furthermore, the bill should provide dedicated funding for the establishment of accredited fertility clinics in each of Nigeria's six geopolitical zones, ensuring equitable access for both urban and rural residents. By framing infertility as a health and human rights issue, this legislative initiative would address the widespread psychosocial suffering, marital instability, and social exclusion documented in studies by Dyer (2007), Esan (2022), and Köse et al. (2020), while also aligning with global best practices in countries such as Israel and Belgium, where state-funded assisted reproductive technologies have significantly improved

access and outcomes.

Concurrently, the President, through the National Assembly, should direct the Federal Ministry of Health to create and implement a National Policy on Reproductive Psychosocial Health, with a particular emphasis on infertility. This policy would codify the biopsychosocial model of care (Engel, 1977) by requiring routine psychosocial screening and counselling in all accredited fertility centres. It would necessitate the inclusion of mental health services in reproductive care funding streams, as well as support for healthcare provider training in stigma reduction, culturally sensitive communication, and patient-centered care, all of which have been identified as key gaps in the literature (Fisher & Hammarberg, 2020; Talevi, 2020). The policy should also allow for community-based interventions aimed at dismantling gendered stigma, particularly the disproportionate blame placed on women, which the study and previous research (Ullah et al., 2021; Thorn, 2009) have shown exacerbates emotional distress and delays in care-seeking. The Department of Public Health could lead implementation in collaboration with the National Mental Health Policy Framework and federal neuropsychiatric institutions, ensuring that it is consistent with existing national health strategies.

To ensure high-level coordination and sustained political attention, the President's Office should establish a "Presidential Task Force on Fertility and Family Formation". This task force, comprised of representatives from the Ministries of Health, Women Affairs, Education, and Finance, as well as leaders from the medical, traditional, and faith-based sectors, would act as a cross-sectoral coordinating body in charge of monitoring policy implementation, advising on public awareness campaigns, and reviewing regulatory frameworks for non-medical fertility practices. Its establishment would signal a top-down commitment to

reproductive equity and help overcome the bureaucratic fragmentation that currently impedes effective service delivery. The task force could also oversee the creation of a National Infertility Registry to track prevalence, treatment patterns, and outcomes, which are critical data for evidence-based planning and evaluation.

Members of the Senate and House of Representatives, particularly those serving on the Health Committees, should fulfil their legislative oversight responsibilities by holding annual parliamentary hearings on infertility and reproductive equity. These hearings would provide a formal forum for patients, clinicians, researchers, and traditional healers to share their perspectives on the difficulties of accessing care, the financial and emotional costs of treatment, and the risks associated with unregulated practices. They would also allow lawmakers to examine the federal budget for reproductive health, evaluate the performance of the NHIS, and hold the Ministry of Health accountable for policy implementation. Such hearings would not only raise awareness of infertility as a national issue but would also establish a legislative record that could be used to advocate for increased funding, legal reforms, and systemic improvements.

The expansion of the NHIS benefit package to include assisted reproductive technologies and mental health services is an important step towards achieving equity. The Minister of Health, in collaboration with the NHIS Director-General, should issue an executive directive to phase in coverage for intrauterine insemination (IUI) and in vitro fertilization (IVF) for eligible couples, beginning with pilot programs in federal medical institutions such as Ibadan's University College Hospital and Lagos University Teaching Hospital. The reimbursement framework should also include diagnostic services and psychological counselling. Given that

financial inaccessibility remains one of the most significant barriers to timely and safe care (Zimmer et al., 2019; Wang, 2022), this reform would directly address reproductive injustice while reducing reliance on out-of-pocket payments, which frequently push people down unregulated or harmful treatment paths (Bartelink, le Roux, & Levinga, 2017).

To change public perception and normalize conversations about infertility, the President should declare an "Annual National Infertility Awareness Week" with presidential patronage. The Federal Ministry of Health and the National Orientation Agency will coordinate this initiative, which will include public education campaigns, media engagements, community dialogues, and storytelling events that highlight the lived experiences of individuals and couples. The campaign would build on Thorn's (2009) and Esan's (2022) findings, which highlight the negative effects of silence and misinformation, by encouraging help-seeking behaviour and challenging cultural taboos. Presidential endorsement would provide moral authority and national visibility, helping to transform infertility from a source of shame to a legitimate topic of public debate and policy action.

Finally, legislators at the federal and state levels should encourage the creation of regulatory frameworks for traditional and faith-based fertility practices. Rather than dismissing these deeply embedded systems in Nigerian culture, policymakers should advocate for a model of respectful integration that prioritizes patient safety and informed decision-making. This could include requiring traditional fertility practitioners to register, prohibiting fraudulent claims like guaranteed cures, establishing adverse event reporting mechanisms, and creating formal referral links between traditional healers and medical facilities. Senators and House members from constituencies with a strong interest in pluralistic healing systems, such as Oyo, Lagos,

Ogun, Ekiti, Rivers, Kano, and Kaduna, can play a critical role in advancing these initiatives through state-federal collaborations and pilot programs.

### **Clinical and Training Recommendations**

#### ***Public Education and Stigma Reduction Campaigns***

The Federal Ministry of Information, in collaboration with the National Agency for the Control of AIDS (NACA) and civil society organizations such as the Women's Health and Action Research Centre (WHARC), should launch nationwide public awareness campaigns regarding infertility as a medical condition rather than a moral failing. These campaigns should use radio, television, social media, and community town halls, particularly in high-prevalence areas such as Ibadan and other cities, towns, and villages in Nigeria, to destigmatize infertility, promote early diagnosis (Pallotti, et al., 2022), and educate the public about the dangers of misinformation and treatment delays. Messaging should be culturally appropriate, gender-sensitive, and inclusive of men, who are frequently overlooked in reproductive health discussions (Nieuwenhuis et al. 2009). Educational materials should also emphasize the psychosocial consequences of various treatment options, allowing couples to make informed choices (Spatz, 2016; Shanna Logan et al., 2019).

#### ***Research-Based Practice and Service Evaluation***

To ensure long-term viability and effectiveness, research-practice integration must be institutionalized. The Nigerian Institute of Medical Research (NIMR) and university-affiliated research institutions should prioritize longitudinal and mixed-methods studies on fertility care outcomes, including the psychosocial impact of hybrid treatment models (Grill,

2023). The findings should guide the development of evidence-based clinical guidelines and be disseminated through continuing medical education (CME) programs. Furthermore, fertility clinics should be required to monitor and report psychosocial outcomes as part of quality assurance protocols, in accordance with international standards (O'Connell, 2021). Pilot programs that incorporate complementary modalities, such as mindfulness, prayer spaces, or acupuncture, into clinical settings could be evaluated for feasibility and patient satisfaction, promoting holistic well-being while maintaining medical integrity (Baesler, 2008; Gordon, 1988).

***Create culturally relevant health education curricula for primary and secondary schools***

Drawing on Kleinman's (1980) illness explanatory models, which emphasize the importance of understanding local beliefs about disease causation and treatment, reproductive health education must be introduced early and contextualized within cultural contexts (Weiss & Somma, 2007). The Nigerian Educational Research and Development Council (NERDC) should update the national curriculum to include age-appropriate, stigma-free modules on fertility, reproductive health, and infertility prevention in secondary schools. These curricula should dispel myths (for example, infertility as divine punishment or witchcraft), increase biological literacy, and normalize discussions about reproductive health. Such interventions can reduce misinformation, delays in care, and self-blame, key themes identified in the literature (Esan, 2022; Thorn, 2009). Oyo State could launch pilot programs in collaboration with the State Ministry of Education and UNESCO's health education initiatives.

### ***Form a National Taskforce on Reproductive Psychosocial Health***

Given the psychosocial complexity of infertility, the Federal Ministry of Health should convene a dedicated National Task Force on Reproductive Psychosocial Health, which would include representatives from obstetrics and gynaecology, reproductive endocrinology (RE), psychiatry, psychology, traditional medicine, religious organizations, and patient advocacy groups. This body would be accountable for: Creating national guidelines for psychosocial screening in fertility clinics, developing referral pathways for mental health services, monitoring patients' emotional well-being during treatment, and assessing the effectiveness of stigma-reduction campaigns (Fisher & Hammarberg, 2020; Talevi, 2020).

Such a task force would institutionalize the integration of mental health into reproductive care, in line with global calls for holistic models (Gordon, 1988; Wischmann, 2008) and addressing the psychosocial burden documented in studies such as Köse et al. (2020) and Golombok et al. (2017).

**Integrate infertility into primary care through Community Health Workers (CHWs)**

Based on Andersen's (1995) behavioural model of health service use, which identifies predisposing, enabling, and need-based factors in care-seeking, early detection and education are critical (Anderson, 2004). The National Primary Health Care Development Agency (NPHCDA) should train Community Health Workers (CHWs) in Ibadan's urban and peri-urban areas to perform community-based infertility screenings, provide basic education on risk factors (such as STIs and delayed care), and refer couples to appropriate services. CHWs can act as cultural brokers, bridging the gap between medical systems and traditional beliefs (Pescosolido, 2006). This strategy uses existing infrastructure (e.g., ward health committees)

and is consistent with Nigeria's primary healthcare revitalization agenda, making it both cost-effective and scalable.

### ***Certifying and Regulating Traditional and Faith-based Fertility Practitioners***

According to the social constructionist perspective (Inhorn, 2003; Dyer, 2007), and this study, many people (55%) seek help from traditional healers or religious leaders out of trust, accessibility, and cultural resonance. Rather than marginalizing these actors, the Nigerian Traditional Medicine Board and state religious councils should work together to create certification and ethical standards for traditional and faith-based fertility practitioners. Training modules may include: Understanding basic reproductive anatomy, recognizing medical emergencies, such as ectopic pregnancy, risks of harmful practices, such as unsterile procedures, and guidelines for referral and collaboration with medical providers. This regulatory integration would not legitimize unscientific claims, but it would improve patient safety and create a coordinated care ecosystem, reducing delays and iatrogenic harm, which are common in pluralistic settings (Hiadzi & Boafo, 2020; Well, 2023).

### ***Develop a digital health platform for fertility information and peer support***

Using digital health innovations, the Federal Ministry of Communications and Digital Economy, in collaboration with NGOs and telemedicine providers, should support the creation of a multilingual fertility information portal and mobile app for Nigerian users. This platform may: provide evidence-based information on infertility causes and treatments,

culturally appropriate content on spiritual coping and traditional practices, anonymous peer support forums, and accredited fertility clinics, counsellors, and support groups are listed by location.

Such a tool would address information asymmetry, a major barrier identified in the literature allowing people to make informed decisions as corroborated by Blakemore, Bayer, Smith, & Grifo (2020).

### ***Establish Reflexivity and Ethical Training in Medical Education***

To address provider bias and improve patient-provider communication, medical and nursing schools, overseen by the National Universities Commission (NUC) and the Medical and Dental Council of Nigeria (MDCN), should include reproductive ethics, cultural humility, and psychosocial communication skills in their curricula. Given the study's emphasis on reflexivity and ethical rigour, future clinicians must be trained to: Recognize their own assumptions regarding "rational" and "irrational" care, actively engage patients' spiritual and cultural beliefs without judgement, encourage collaborative decision-making (Kielek-Rataj, 2020), demonstrate empathy towards stigma and marital conflict (Thorn, 2009), and simulation-based training and reflective portfolios could be used to evaluate competency in these areas, ensuring that the next generation of providers is prepared for culturally safe practice.

### ***Implement a "Fertility Care Navigator" program in public hospitals***

Public tertiary and secondary hospitals in Ibadan (for example, University College Hospital and Adeoyo State Hospital) should pilot a Fertility Care Navigator (FCN) program

based on patient navigation models in infertility and maternal health. Navigators, trained social workers or nurses, would guide patients through the complicated fertility care system, assisting them: To understand treatment choices, get financial assistance, coordinate appointments between medical, psychological, and spiritual domains, and manage emotional challenges. Additionally, navigators would incorporate mandatory psychosocial screening and referral into all fertility clinics in Ibadan.

This model addresses the study's identified fragmentation of care and supports the patient-centered care paradigm (Shanna Logan et al., 2019; Ishaka, 2021). The FCN program, if funded through public-private partnerships or donor agencies (e.g., WHO, UNFPA), could serve as a national model.

### *Support Longitudinal Research on Hybrid Treatment Pathways*

To advance the theoretical and empirical understanding of integrated care, the Tertiary Education Trust Fund (TETFund) and the Nigerian Institute of Medical Research (NIMR) should fund longitudinal qualitative and mixed-methods studies that follow couples' journeys through medical, traditional, and spiritual systems. These studies should evaluate: Treatment sequencing patterns, psychosocial outcomes, including anxiety and marital stability, cost effectiveness, patient satisfaction.

The findings would help to inform policy, refine clinical guidelines, and contribute to global research on reproductive resilience in low- and middle-income countries (Inhorn & Van Balen, 2002; Uriko, 2020).

### **Suggestion for Addressing Gendered Burden**

To enhance equity and outcomes in fertility care, healthcare systems and service providers should implement gender-responsive strategies that recognize and address the unique experiences, needs, and barriers encountered by both women and men regarding infertility. An essential step towards this objective is the institutionalization of couple-centered fertility care models that actively involve both partners from diagnosis through treatment and psychosocial support. Due to the prevailing cultural bias that assigns infertility mainly to women, leading to significant stigma, psychological distress, and healthcare challenges, it is essential to reform clinical protocols to require joint counselling sessions for both partners at the beginning of fertility assessments. This approach fosters shared understanding and mutual support while addressing the social stigma disproportionately experienced by women by normalizing male involvement and accountability in reproductive health.

Women, as the primary seekers of fertility services, necessitate the incorporation of trauma-informed, gender-sensitive psychosocial support within fertility clinics. This encompasses regular assessments for anxiety, depression, and social isolation, along with access to female-led peer support groups and culturally competent counsellors trained in reproductive grief and stigma management. Services must be provided in local languages and structured to honour religious and cultural norms, thereby ensuring accessibility for women across various educational and socioeconomic levels. Furthermore, it is essential to implement community-based awareness campaigns aimed at challenging the moralization of childlessness and reframing infertility as a shared issue between couples rather than an individual failing, with

a particular focus on religious and traditional institutions where these narratives are frequently reinforced.

Men's involvement in fertility care is often constrained by cultural taboos, perceptions of reduced masculinity, and a lack of visibility in reproductive health contexts (Ali et al., 2011). Therefore, it is crucial to implement targeted outreach and provide male-friendly service delivery. Fertility clinics ought to implement targeted male engagement strategies, including male health days, extended evening clinic hours, and private consultation areas, to mitigate attendance barriers. Training healthcare providers in gender-sensitive communication will improve male receptivity, facilitating discussions on sexual health, sperm-related factors, and emotional vulnerability without shame or defensiveness. Involving men in educational interventions, such as through audiovisual materials, community dialogues, and the engagement of male religious or traditional leaders, can effectively dismantle harmful stereotypes and frame male participation as a demonstration of strength, responsibility, and partnership.

A gender-based approach to fertility care should progress from mere inclusion to transformation, focusing on reshaping norms, redefining roles, and restructuring services to guarantee equitable, dignified, and comprehensive support for both women and men. Embedding gender equity into clinical practice, policy frameworks, and community engagement enables stakeholders to cultivate a reproductive health ecosystem that enhances treatment adherence and emotional well-being while promoting social justice in the experience of infertility.

### *Summary*

In summary, addressing the psychosocial and structural aspects of infertility in Nigeria necessitates a coordinated, multi-institutional response that goes beyond siloed interventions. By incorporating cultural sensitivity, financial accessibility, psychosocial support, and cross-sectoral collaboration into national and local health systems, stakeholders can transform fertility care from a fragmented, stigmatized experience to a compassionate, equitable, and humanizing journey. These recommendations, based on empirical findings and aligned with global best practices, provide a realistic roadmap for institutions with the mandate and capacity to implement change, ensuring that the reproductive aspirations of all individuals, regardless of background, are met with dignity, support, and scientific integrity.

Furthermore, other practical recommendations, based on the biopsychosocial model, health-seeking behaviour theory, and cultural models of illness, go beyond generic calls for "better care" to provide strategic, institutionally anchored, and culturally appropriate interventions. They reflect the reality that poverty, gender inequality (Chancel et al., 2022), religious faith, medical mistrust, and systemic neglect all contribute to infertility in Nigeria. The proposed actions, which involve multiple sectors such as education, health, regulation, technology, and research, provide a comprehensive, sustainable, and human-centred vision for transforming fertility care.

Finally, these recommendations ensure that effective policy is not only evidence-based but also ethically sound, socially just, and contextually aware. In addition, political leadership is critical for transforming Nigeria's fragmented, stigmatized, and inequitable infertility care landscape. These recommendations provide a comprehensive, realistic, and ethically sound road map for action, leveraging the President's, ministers', and lawmakers' distinct powers to enact legislation, allocate resources, and shape national discourse. By doing this, they can ensure that millions of Nigerians' reproductive aspirations are met with dignity, support, and justice, rather than silence and exclusion.

### **Recommendations for Future Research**

The current study has significantly contributed to our understanding of fertility care decision-making and its psychosocial consequences among couples in Ibadan, Nigeria. Using a qualitative exploratory design, it illuminated the complex interplay between medical, traditional, and spiritually based treatment pathways, revealing how cultural, economic, religious, and emotional factors influence reproductive health-seeking behaviours. The findings emphasize that infertility is a deeply social, existential, and relational experience, which is frequently exacerbated by stigma, delayed care, financial hardship, and fragmented support systems (Golombok et al., 2017; Köse et al., 2020; Thorn, 2009). While the study provides rich, contextually grounded insights, its limited sample size of 50 participants from a single urban centre necessitates a robust and forward-thinking research agenda that builds on its foundation to deepen, expand, and refine our understanding of infertility in Nigeria and beyond. Future research must overcome the limitations of geographical specificity, methodological singularity, and temporal immediacy to produce knowledge that is more inclusive, dynamic, and transformative.

The following recommendations, based on the study's findings, theoretical underpinnings, and gaps in the literature, provide a comprehensive, interdisciplinary, and ethically grounded vision for furthering scholarly research into the psychosocial dimensions of infertility.

The significant gender imbalance in participant representation, with only one male among 40 previously infertile individuals, highlights a critical gap in the research landscape: the ongoing marginalization of men in fertility-related discussions and healthcare involvement. Future

research should progress beyond the mere documentation of this imbalance and instead implement intentional, gender-sensitive strategies that actively facilitate the inclusion of men in infertility studies. This initiates a reevaluation of recruitment environments and approaches. Instead of depending exclusively on antenatal or fertility clinics, environments typically associated with women, researchers should explore alternative venues where men are more likely to engage and be receptive, including workplace health programs, community centres, religious gatherings, or sports events. Engagement with male-oriented community leaders, traditional authorities, or faith-based organizations can improve accessibility and foster trust, thereby promoting increased male involvement.

Future research would benefit from a longitudinal qualitative study that centres specifically on the male experience and traces the evolution of marital communication throughout the first five years of treatment. Such an approach would allow for a nuanced understanding of how men navigate emotional, psychological, and relational dynamics over time, particularly as they and their partners adapt to the challenges and changes brought about by ongoing treatment. By following couples across this critical period, researchers could capture shifts in communication patterns, power dynamics, support mechanisms, and shared decision-making, offering deeper insights into the gendered dimensions of illness and care within marital relationships. This temporal depth would not only illuminate the trajectory of spousal interaction but also highlight opportunities for targeted interventions that strengthen relational resilience and improve health outcomes for both partners.

Future studies should prioritize couple-based or dyadic interviewing approaches, allowing both partners to share their experiences within the same research framework. This ensures

balanced representation and facilitates the exploration of relational dynamics, shared decision-making processes, and variations in emotional coping between partners. This approach can provide deeper insights into the impact of infertility on marital relationships, communication patterns, and systems of mutual support. Researchers should consider utilizing male interviewers or mixed-gender research teams to mitigate perceived stigma and enhance comfort levels among male participants, especially when addressing sensitive subjects such as sexual health, virility, and paternal identity.

Future research should integrate gender analysis as a fundamental aspect of study design to enhance methodological rigour and cultural relevance, rather than considering it as an afterthought. This involves creating gender-responsive interview guides that examine men's distinct experiences, including social pressures related to fatherhood, feelings of inadequacy, helplessness, or avoidance behaviours, while avoiding the reinforcement of harmful stereotypes. Longitudinal studies may provide valuable insights into the changes in male involvement throughout treatment, elucidating the factors influencing men's engagement in fertility care. Additionally, qualitative inquiry ought to be enhanced by community-based participatory research (CBPR) models that engage men in the co-design of studies, thereby ensuring that research questions and methodologies align with their lived experiences.

There is a critical requirement for research focused on policies that investigates the institutional and systemic obstacles to male participation in reproductive health services. This involves assessing clinic hours, privacy protocols, provider attitudes, and public health messaging to ascertain how these elements may influence male participation. Research findings can directly inform the development of fertility services that are inclusive of men and

public awareness campaigns that address the misconception that infertility is exclusively a female concern. This study's limitations can catalyze change, enabling future research to foster a more equitable, inclusive, and comprehensive understanding of infertility, acknowledging and valuing the experiences of all individuals impacted by this complex and personal condition.

The current study's geographic and demographic focus on Ibadan, a culturally and religiously diverse but unique urban context, is a significant limitation. While a sample size of 50 participants is methodologically adequate for a thorough qualitative investigation, future research should prioritize geographic and socio-cultural diversity to ensure broader representativeness and generalizability. Subsequent studies should broaden their scope to include participants from multiple Nigerian cities, including Lagos, Kano, Enugu, Port Harcourt, and Maiduguri, to capture the full range of fertility experiences across socioeconomic strata, ethnic groups, religious traditions, and healthcare infrastructures. This expansion is critical because local norms, access to services, and historical legacies of medical mistrust all have a significant impact on fertility beliefs and treatment practices (Inhorn & Van Balen, 2002; Nieuwenhuis et al., 2009). For example, the role of Islamic faith healing in Northern Nigeria may differ significantly from Yoruba traditional practices in the Southwest, and Pentecostal megachurches in Lagos may have a different impact than indigenous spiritual systems in rural Delta communities. By incorporating these diverse contexts, researchers can create a national comparative framework that identifies both similarities and differences in decision-making processes, allowing for the design of regionally tailored interventions and policies. A multi-site approach would also aid in the identification of structural barriers, such as transportation costs, gendered power dynamics, or provider bias, that disproportionately

affect marginalized populations, including low-income women, rural dwellers, and internally displaced persons from the Boko Haram insurgency.

Furthermore, while the current study focused on individuals with a documented history of infertility who have since conceived, future research should intentionally include couples currently undergoing infertility treatment in order to gain a more immediate and dynamic understanding of the emotional turbulence, uncertainty, and coping mechanisms associated with active treatment stages. While retrospective narratives of those who have achieved conception are valuable for their reflective depth and narrative coherence, they may be prone to recall bias or outcome-based reinterpretation, in which past suffering is reframed in light of current resolution (Uriko, 2020). Individuals who are currently on their fertility journey, on the other hand, provide real-time insights into the psychological strain of diagnosis, the stress of treatment selection, and the fluctuating emotions of hope and despair. This cohort study allows researchers to observe how psychosocial well-being changes over time, particularly in response to treatment success, failure, or prolonged ambiguity. Comparing those who eventually conceive to those who remain childless could provide important insights into long-term adjustment, identity reconstruction, and resilience. This distinction is especially important in a cultural context where childlessness is frequently stigmatized and associated with lower social status (Dyer, 2007; Ullah et al., 2021), making it critical to understand the varying coping trajectories of different outcome groups.

To improve the diversity and representativeness of future samples, recruitment strategies must go beyond clinical settings and include community-based, digital, and peer-led channels. The current study relied heavily on clinic-based recruitment, which may have unintentionally

excluded people who avoid formal healthcare due to mistrust, cost, or stigma. Future research should use multi-modal recruitment strategies, such as collaborations with patient support groups, participation in online infertility forums (e.g., Facebook groups, WhatsApp communities), and outreach through faith-based organizations and traditional healing networks. These alternative pathways not only increase access to under-represented populations but also reflect Nigeria's pluralistic reality of fertility care-seeking, in which many people begin their journey with spiritual or indigenous systems before seeking medical services (Hiadzi & Boafo, 2020; Well, 2023). Furthermore, targeted recruitment in male-dominated spaces such as workplaces, religious gatherings, or sports associations should prioritize the inclusion of men, who are frequently absent from reproductive health research despite their significant emotional and relational burden (Nieuwenhuis et al., 2009).

Methodologically, using only qualitative interviews, while effective in generating rich, interpretive data, limits the ability to identify broader patterns and statistical relationships. Future research should use a mixed-methods approach that combines qualitative depth and quantitative breadth. Combining semi-structured interviews and focus groups with structured surveys enables researchers to triangulate findings, validate themes using statistical analysis, and determine the prevalence of specific beliefs or experiences across larger populations. A survey component, for example, could use validated instruments such as the Hospital Anxiety and Depression Scale (HADS) or the FertiQoL questionnaire to assess levels of depression, anxiety, marital satisfaction, or treatment satisfaction, whereas qualitative components would investigate the lived meanings behind these scores. This dual approach improves both the validity and reliability of findings, allowing researchers to shift from descriptive accounts to explanatory models of decision-making (Grill, 2023; O'Connell, 2021). Furthermore,

incorporating digital ethnography, which analyses online interactions in infertility support groups or social media platforms, can provide real-time, unfiltered insights into how people share information, seek advice, and construct identities in virtual spaces, complementing offline data collection efforts.

Longitudinal research designs represent an important step forward from the current study's cross-sectional design. Infertility is a dynamic process characterized by shifting emotions, changing treatment strategies, and fluctuating social dynamics. Future research should use longitudinal methodologies to follow couples over time, before, during, and after treatment, to see how their psychosocial well-being, relationship quality, and decision-making change in response to medical outcomes, financial strain, or social pressure. Such designs can reveal critical turning points, such as when people switch from medical to spiritual care or when marital conflict worsens as a result of prolonged childlessness. Longitudinal data also enable the evaluation of post-treatment adjustment, such as how couples reintegrate into social life, renegotiate gender roles, or deal with secondary infertility. These insights are critical for creating timely and stage-appropriate interventions like pre-treatment counselling, mid-journey emotional support, and post-resolution debriefing sessions.

To improve contextual understanding, future research should use ethnographic methods, such as participant observation, to immerse researchers in the everyday environments where fertility decisions are made. Observing interactions between patients and healthcare providers, traditional healers and their clients, or couples in prayer meetings can reveal unspoken norms, power dynamics, and ritual practices that interviews may overlook. Observing a faith healing session or a fertility clinic consultation, for example, may shed light on how authority is

established, information is communicated, and emotional support is provided. This methodological expansion is consistent with Kleinman's (1980) explanatory models of illness, which emphasize the significance of understanding local beliefs about causation, treatment, and responsibility (Kleinman, 2015). Ethnography enables researchers to look beyond individual stories and examine the social ecologies of infertility, such as family pressures, community expectations, and institutional constraints.

Another innovative methodological recommendation is to use digital diaries or mobile journaling to capture the temporal dimension of decision-making. Encourage participants to record their thoughts, emotions, and reflections throughout their treatment journey using voice notes, text entries, or video logs to provide a continuous, real-time record of their experiences. This technique, aided by advances in mobile health technology, allows researchers to identify patterns, triggers, and turning points that may not be revealed in retrospective interviews. For example, a diary entry after a failed IVF cycle may reveal intense grief, spiritual questioning, or renewed determination, emotions that can influence the timing and content of psychosocial interventions. When combined with pre- and post-treatment interviews, this temporal accuracy

Analytically, future research should use advanced qualitative data analysis tools (Hilal & Alabri, 2013; Meinicke, 2014, September; Mayer, 2015), like NVivo, MAXQDA, or AI-assisted thematic coding to improve the rigour, transparency, and reproducibility of results (Azeem, Salfi, & Dogar, 2012). These tools make systematic coding, theme development, and inter-coder reliability checks easier, reducing researcher bias and increasing the credibility of findings. Furthermore, the use of reflexive thematic analysis (Braun & Clarke, 2006) within

an Engel, 1977 biopsychosocial framework (Gatchel et al., 2020; Engel, 1977) ensures that findings are not only empirically grounded but also theoretically informed, allowing for the integration of biological, psychological, and social aspects of infertility. Researchers should also use narrative analysis to investigate how people make meaning from their experiences, framing infertility as a story of struggle, resilience, faith, or transformation.

Ethical considerations must be central to all future research. Given the emotional vulnerability of participants, studies must maintain the highest levels of informed consent, confidentiality, and psychological support. Researchers should work with mental health professionals to provide on-demand counselling services during and after data collection, especially for participants who become distressed during interviews. Institutional Review Boards (IRBs) should require detailed ethical protocols, including crisis management plans for situations such as suicidal ideation or marital breakdown. Furthermore, research should be conducted with cultural humility, acknowledging the legitimacy of non-medical healing systems while not sentimentalizing or venerating them. This necessitates ongoing reflection and engagement with local epistemologies to ensure that research does not perpetuate colonial or medical hegemonies.

Interdisciplinary collaboration is another important frontier for future research. Infertility is a complex phenomenon that cannot be fully comprehended using a single disciplinary lens. Researchers should actively collaborate with medical professionals, sociologists, anthropologists, psychologists, theologians, and public health experts to develop comprehensive care models. Collaborations with anthropologists, for example, can improve

understanding of ritual healing practices (Foster, 1996), whereas partnerships with economists can assess the financial risk of fertility treatments. Interdisciplinary teams can also create integrated interventions that combine medical treatment, psychosocial support, spiritual counselling, and financial planning, in line with Gordon's (1988) and Wischmann's (2008) comprehensive care models.

Furthermore, future research should investigate the role of peer support, online communities, and family networks in influencing treatment decisions. While the current study touched on social support, a more in-depth examination of how couples navigate advice from friends, relatives, or online forums is required. Social media platforms, in particular, have emerged as powerful spaces for information exchange, emotional validation, and collective advocacy (Montgomery & Terrion, 2023). Understanding how digital communities influence treatment decisions, whether by promoting evidence-based practices or spreading misinformation, is critical in this age of rapid technological change.

**Prioritize policy-relevant research:** The findings should be translated into specific recommendations for healthcare providers, regulatory bodies, and government agencies. For example, studies could assess the feasibility and impact of the Nigerian Traditional Medicine Board's proposal to certify traditional and faith-based fertility practitioners to ensure ethical standards and patient safety. Drawing on HIV/AIDS and mental health advocacy models, researchers could also evaluate the effectiveness of public awareness campaigns in reducing stigma and improving help-seeking behaviours. Furthermore, research into telehealth and mobile health applications, such as AI-powered fertility tracking apps or virtual counselling

platforms, can help to shape the design of scalable, accessible support systems, particularly for rural or underserved populations (Spatz, 2016; Yuan, 2024).

Additionally, future research must contribute to global knowledge equity by ensuring that African perspectives are not ignored in international reproductive health discussions. Nigerian scholars should lead research that challenges Western-centric models of infertility and instead focuses on local realities, beliefs, and solutions. This includes publishing in high-impact journals, giving presentations at international conferences, and working with global networks like the International Committee for Monitoring Assisted Reproductive Technology (ICMART). Nigerian research can have an impact on global policy, shift theoretical paradigms, and validate the value of contextually grounded knowledge.

Finally, this study has paved the way for a better understanding of the psychosocial aspects of infertility in Nigeria. Its findings advocate for a new generation of research that is more comprehensive, methodologically sophisticated, ethically rigorous, and socially transformative. Future studies can build on this foundation by incorporating geographic diversity, longitudinal designs, mixed methods, digital tools, and interdisciplinary collaboration to generate knowledge that not only advances academic understanding but also improves the lives of millions of Nigerians navigating the difficult journey of infertility. The depth and significance of this study stem not only from its scholarly contribution, but also from its potential to promote compassion, equity, and justice in reproductive health care.

### **Original Contribution to Knowledge**

This research falls at the nexus of reproductive sociology, cultural psychology, and psychoanalytic philosophy. While previous research on infertility in Sub-Saharan Africa has primarily used medical (Barnawi et al., 2020), feminist (Agenjo-Calderón & Gálvez-Muñoz, 2019), or structural frameworks (Ishaka, 2021), this study introduces a novel integration of Sigmund Freud's psychoanalytic model, specifically his concepts of the unconscious, psychic conflict, defence mechanisms, and the tripartite structure of the psyche (id, ego, superego), to interpret the deeply affective dimensions of fertility care decision-making among couples in Ibadan, Nigeria.

Freudian theory, while historically criticized for its Eurocentrism and gender biases, provides a powerful lens for investigating the intrapsychic tensions that infertility causes, tensions that extend beyond social stigma into the realms of existential anxiety, identity disruption, and unconscious guilt. Rather than blindly applying Freud's model, this study re-contextualizes and de-centers it within a Yoruba cultural-epistemic framework in which concepts such as destiny (ayanmo), lineage continuity, spiritual causality, and communal obligation shape the inner world as profoundly as parental introjects or libidinal drives. By doing so, the study offers novel insights into the empirical, theoretical, and methodological realms.

**1. Empirical Contribution:** The First Comprehensive Psychoanalytically Informed Qualitative Study Triangulating Medical, Spiritual, and Traditional Care Pathways in Ibadan

This study provides a significant empirical contribution by conducting the first in-depth, qualitative analysis into how people facing infertility in Ibadan navigate and integrate three diverse but coexisting treatment systems: medical, traditional, and spiritual. While previous studies in Nigeria looked at healthcare-seeking behaviour in isolation, focusing on clinic-based treatment or faith-based healing, this project is the first to systematically triangulate these pathways within a single cohort, capturing the fluid, often simultaneous, and sometimes conflicting ways people move between them.

The study documents the pragmatic pluralism that characterizes fertility journeys in southwestern Nigeria using rich narrative data from 40 participants (39 women, 1 man): individuals may attend fertility clinics while also consuming herbal concoctions from traditional healers and participating in intensive deliverance prayers at Pentecostal churches, all within the same treatment cycle. This empirical mapping reveals not only the complexities of health decision-making in a diverse medical landscape, but also the cultural logic that underpins it: biomedicine focuses on the body, tradition on ancestry and balance, and spirituality on moral and existential issues of worth, destiny, and divine will.

This study fills a major empirical gap: there is almost no qualitative, couple-centred research in Nigeria that shows how involuntary childlessness activates unconscious processes and is handled through culturally established defence measures. The findings show that infertility is perceived not just as a biological problem, but also as a narcissistic harm that threatens self-worth, marital stability, and societal validity. Participants frequently described feelings of inadequacy, shame, and divine abandonment, which they managed through mechanisms Freud would recognize as

projection (e.g., attributing infertility to spiritual attacks or a spouse's hidden transgression), sublimation (channeling reproductive longing into church service or caregiving), and denial (maintaining unwavering "hope in God" despite repeated treatment failures).

Crucially, the study demonstrates how pluralistic care-seeking, which includes consultations with medical clinics, clergy, and traditional healers, serves as a compromise formulation. This strategy enables the ego to mediate between the id's insistent demands (the biological and emotional drive for parenthood), the superego's moral injunctions (shaped by religious doctrine and ancestral expectations), and the realities of life (financial constraints, treatment access, diagnostic uncertainty). Such findings broaden the empirical picture by demonstrating the mental logic that underpins seemingly "irrational" or "syncretic" health behaviours. The work addresses a major gap in African reproductive health literature by documenting this integrative ecosystem of care in granular detail, as well as providing a strong empirical baseline for future policy, clinical, and community initiatives in Ibadan and similar socio-cultural settings.

## **2. Theoretical Contribution:** The First Application of Freud's Psychoanalytic Framework to Contemporary Fertility Decision-Making in a Nigerian Context

Beyond its empirical findings, this study pioneers a novel theoretical intervention by using Freudian psychoanalytic theory, specifically concepts of the superego, ego ideal, melancholia, and unconscious desire, to interpret the psychosocial

dimensions of infertility in a non-Western, religiously saturated African context. While psychoanalytic approaches have long influenced Western understandings of reproductive loss, they have rarely been used to examine infertility in places like Nigeria, where pronatalism, spirituality, and kinship duties affect identity in culturally distinct ways. This study demonstrates that Freud's framework is still strikingly relevant when recontextualized: the overwhelming shame reported by female participants, their internalized sense of failure, and their desire for a "replica of the self" through progeny are powerfully elucidated through the lens of the punitive superego and the shattered ego ideal of motherhood. Furthermore, the chronic mourning and identity fragmentation found are consistent with Freud's concept of melancholia, in which the unachievable purpose becomes a lost object fused with the self, resulting in constant self-reproach. Crucially, the study contributes to psychoanalytic theory by demonstrating how cultural and religious discourses, particularly the "spiritual gaze," activate and intensify these intrapsychic dynamics, turning biological infertility into a moral catastrophe.

This study illuminates that, within the Yoruba setting, the superego is not exclusively internalized from parental figures but is co-constituted by communal voices, elders, church leaders, ancestors, and society norms that associate parenthood with moral fulfilment. Similarly, libido, traditionally framed as sexual energy, is re-conceptualized as a generative life force encompassing lineage, legacy, and spiritual fruitfulness. This expansion correlates Freud's drive theory with indigenous concepts of personhood and continuity. Furthermore, the study posits that infertility in this situation represents an existential disruption: a crisis not merely of reproduction but of

ontological stability. The ego's endeavour to preserve coherence amongst extended uncertainty, coupled with pronatalist pressures and spiritual interpretations of infertility, exposes the limitations of exclusively logical theories of health conduct. This research presents a psychoanalytically-informed, decolonial framework for understanding reproductive distress in West Africa by emphasizing unconscious motivations and culturally-specific defence mechanisms. In doing so, the study not only revitalizes psychoanalytic theory for global health contexts but also provides a fundamentally interpretive, non-reductionist lens for comprehending the emotional architecture of reproductive pain in Ibadan.

**3. Methodological contribution:** demonstrating the efficacy of qualitative methods in revealing the lived reality of the gendered burden -validated by the sample composition itself.

Methodologically, this study makes a unique contribution by utilizing qualitative inquiry to not only explore but also to embody its central finding. The near-exclusive participation of women (39 out of 40) was initially a logistical limitation but emerged as a methodologically reflexive validation of the study's core issue: the gendered burden of infertility. Rather than presenting this imbalance as a defect that should be concealed, the research emphasizes it as data, utilizing the sample composition as empirical evidence of how infertility is socially constructed as a female issue. Through in-depth interviews, thematic analysis, and critical reflexivity, the study demonstrates how qualitative methods can capture not just what people say, but who is absent, and why. This method reveals the structural and cultural reasons that make men

invisible in infertility care: stigma avoidance, patriarchal exclusion from blame, and institutional structures that treat "patients" as women. In doing so, the research exemplifies a type of methodological consistency in which the research process reflects the social reality under consideration. Furthermore, the use of several validation procedures, such as peer debriefing, member checking, and intercoder reliability, promotes analytical rigour while maintaining the contextual authenticity of participants' voices. Thus, the study advances qualitative methodology in global health by showing how sampling patterns, when critically engaged, can reinforce theoretical claims, turning methodological constraints into substantive insights.

The study's methodology is innovative in that it uses psychoanalytically sensitive qualitative interviewing. Participants are evaluated not just on what they say, but also on how they say it, including pauses, metaphors ("God can open my closed womb like a door"), emotional shifts, and narrative contradictions, which frequently indicate unconscious content. Repeated references to "God's plan" or "spiritual warfare" are viewed not only as religious beliefs but also as symbolic manifestations of intrapsychic struggle and ego-preserving techniques. Furthermore, by examining couples as relational psychic systems, the study broadens Freudian dyadic dynamics beyond the therapeutic situation. It describes how spouses might engage in projective identification (one spouse projecting shame onto the other) or mutual idealization (both clinging to optimism as a joint shield against despair). This couple-level, psychosocial approach challenges the individualism of traditional infertility research, revealing the co-construction of emotional reality within intimate relationships.

In summary, this study offers an original contribution by engaging with Freudian psychoanalysis from an informed, Yoruba perspective. It does not aim to universalize Freud but rather to provincialize him, evaluating his insights within a cultural context where the unconscious manifests through phrases, prayers, and traditions as much as through dreams or lapses of the tongue. The outcome is a more comprehensive, culturally sensitive understanding of infertility as a psychosocial and existential phenomenon, with significant implications for clinical practice, counselling ethics, and culturally competent fertility treatment in Nigeria and beyond. Together, these contributions establish the research as a groundbreaking study that not only captures the facts of infertility in Ibadan but also revolutionizes the way we theorize, investigate, and address reproductive distress in culturally complex, pluralistic societies.

**Table 5**

*Summary of the Gaps Identified and the Original Contribution to Knowledge*

<b>Category</b>	<b>Gaps Identified ( Through a Psychoanalytic Lens)</b>	<b>Original contribution to knowledge (Psychoanalytically Informed)</b>
<b>Empirical</b>	<p>There has been little empirical research on how infertility triggers unconscious conflicts (e.g., infertility anxiety, relational crisis, guilt) in non-Western cultures (Ibadan).</p> <p>There is a lack of information on how couples' defence strategies (such as denial, sublimation, and projection) appear in reaction to fertility-</p>	<p>The study reveals how involuntary childlessness triggers deep-seated unconscious anxieties (e.g., fear of emasculation, loss of legacy, divine punishment), not merely as social stigma but as internalized psychic threats.</p> <p>It describes culturally particular defence mechanisms, such as attributing infertility to spiritual attack (projection),</p>

	<p>related guilt or marital pressure in Yoruba situations.</p> <p>There are no studies that show how spiritual or traditional healing methods operate as ego-supporting processes to alleviate psychological discomfort.</p>	<p>embracing prayer as a release of libidinal frustration, or accepting "hope in God" as a type of denial that preserves ego integrity.</p> <p>It demonstrates how pluralistic care-seeking (for example, combining medical with church prayer and herbal treatment) serves as a type of compromise, balancing the demands of the id (desire for child), superego (moral/religious responsibility), and reality (medical limitations).</p>
<b>Theoretical</b>	<p>Freudian theory is rarely applied or critically adapted to African reproductive realities, resulting in ethnocentric assumptions about psychic structure universality.</p> <p>Existing models neglect how the superego in Yoruba society is shaped not only by parental input but also by ancestral customs, religious doctrine, and communal norms.</p> <p>There is no integration of Freud's concept of libido (life drive) with indigenous concepts such as "destiny," "bloodline continuity," or "spiritual fruitfulness."</p>	<p>This study reinterprets Freud's structural paradigm (id-ego-superego) within a Yoruba sociocultural matrix, demonstrating how family, church, and ancestral voices, rather than solely internalized parental authority, co-construct the superego.</p> <p>It redefines libido as a culturally enlarged generative drive that includes a need for lineage, social recognition, and spiritual fulfilment, rather than simply sexual energy.</p> <p>The study provides a culturally complex definition of psychological conflict: infertility is more than just a reproductive catastrophe; it is an existential rupture that undermines the ego's ability to balance between biological desires, spiritual beliefs, and social obligations.</p>
<b>Methodological</b>	<p>Psychoanalytically informed qualitative methods, such as narrative analysis and the examination of slips, silences,</p>	<p>This study utilizes comprehensive psychoanalytically informed interviews that focus on</p>

	<p>and metaphors, are insufficiently utilized in global health and African infertility research.</p> <p>Many studies conceptualize "coping" as a rational behaviour, overlooking the unconscious processes that are illuminated through emotional language, dreams, or ritual practices.</p> <p>Couples are infrequently examined as relational psychological systems, in which one partner's defences activate or alleviate the other's anxieties.</p>	<p>emotional tone, metaphor, contradiction, and silences, thereby uncovering unconscious material (e.g., guilt, ambivalence, repressed anger) that surveys cannot access.</p> <p>It analyses spiritual narratives (e.g., "God's timing," "spiritual warfare") as symbolic representations of intrapsychic conflict and ego defence rather than mere beliefs.</p> <p>This analysis examines the couple as an intersubjective field, wherein projective identification, shared denial, and mutual idealization serve as collaboratively constructed defences against the trauma of infertility, thereby extending Freudian dyadic dynamics beyond the therapeutic context.</p>
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## Conclusion

This research was motivated by a critical gap in the understanding of the complex, emotionally charged decisions that individuals and couples in Ibadan, Nigeria, make when faced with infertility in a pluralistic healthcare environment. Unlike environments where medical interventions are the primary focus, participants in this context are confronted with a multi-pathway reality, which involves the simultaneous consideration of options that include traditional healing, clinical fertility

treatments, spiritual healing, and marital strategies. Within this complex decision-making ecosystem, existing scholarship has mainly ignored the lived, intersubjective experiences that influence how people pick, delay, or reject specific paths. Importantly, previous research frequently addressed infertility as a separate medical problem rather than a socially entrenched crisis that affects personal identity, marital harmony, and community status. This study aimed to shed light on the multifaceted, often contradictory forces that influence fertility decision-making in a society where biological authority coexists and frequently competes with deeply ingrained cultural, spiritual, and familial expectations.

The qualitative exploratory design was remarkably effective in revealing the profundity, complexity, and fluidity of these decision-making processes. The study documented the dynamic interplay between human agency and structural constraints via in-depth, semi-structured interviews with 50 participants (patients and providers) from various socioeconomic, religious, and gender backgrounds. The methodology's open-ended, reflexive nature allowed participants to express their experiences in their own words, exposing not just stated decisions but also silences, hesitations, and emotional undercurrents that quantitative approaches may overlook. Crucially, the researcher's contact with participants generated trust, allowing for the sharing of profoundly personal narratives, while iterative thematic analysis ensured that emergent patterns were based on the data rather than preconceived categories. This research approach resulted in a rich, contextually aware depiction of infertility as a lived social and psychological phenomena rather than a clinical diagnosis.

Data analysis identified numerous interconnected thematic clusters that represent the psychological and social terrain of infertility in Ibadan. Individuals, particularly women, who internalize infertility as a personal failure, typically accompanied by guilt, anxiety, and existential despair, bear a significant emotional and psychological burden. This was exacerbated by significant social shame, in which childlessness is viewed not only as a reproductive issue, but also as a moral or spiritual shortcoming, resulting in exclusion from community rites and family inheritance patterns. Gendered responsibilities appeared sharply, corroborated by data, with women disproportionately carrying the burden of infertility, while men's experiences are less visible. Financial constraints exacerbated options, as expensive medical therapies competed with domestic requirements, frequently forcing unpleasant trade-offs. Notably, individuals actively integrated spiritual beliefs into their explanatory frameworks, interpreting infertility as a test from God, a punishment, or the result of ancestral misdeeds, which influenced their willingness to engage in specific treatment techniques. These themes did not work in isolation, but rather as part of a complex web of interconnected influences that made decision-making very ambiguous and context-dependent.

Theoretically, this study makes a significant contribution by demonstrating the relevance of Freudian psychoanalytic concepts in a non-Western, collectivist context, specifically the idea that reproductive failure can function as a type of psychic trauma that destabilizes the self and disrupts ego integrity. While Freud developed his theories within a Eurocentric, late-nineteenth-century framework, this research demonstrates that the psychological mechanisms he described, such as internalized guilt, projection,

and the fracturing of self-worth in response to perceived failure, are not culturally limited but manifest in culturally specific idioms. In Ibadan, the trauma of infertility is metabolized not only through individual neurosis, but also through socially mediated experiences of shame, isolation, and spiritual crises, broadening psychoanalytic theory to include communal and spiritual aspects of psychic existence. By validating and re-contextualizing Freud's insights within a Nigerian socio-cultural matrix, the study not only confirms the universality of certain psychological responses to loss and inadequacy but also calls into question the Western-centric assumptions that have historically limited the applicability of psychoanalytic thought in global health research.

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## APPENDICES

## Appendix A1

*Demographic Characteristics of all the Participating Patients*

NO	SEX	PRESENT AGE	AGE AT MARRIAGE	AGE AT FIRST CONCEPTION	YEARS OF INFERTILITY	EDUCATIONAL STATUS			TRIBE/ETHNIC GROUP	OCCUPATION	RELIGION	FINANCIAL STATUS			ALCOHOL	CIGARETTE SMOKING
						NONE	PRY/SECONDARY	HIGHER INSTITUTION				LOW	MEDIUM	HIGH		
1	F	26	21	26	5			-	YORUBA	CATERER	CHRISTIANITY		-		NIL	NIL
2	F	37	33	35	2			-	YORUBA	TEACHING	CHRISTIANITY		-		NIL	NIL
3	F	34	28	33	5			-	YORUBA	TEACHING	CHRISTIANITY		-		NIL	NIL
4	F	30	29	30	1			-	YORUBA	TRADING	CHRISTIANITY		-		YES	NIL
5	F	27	25	27	2			-	YORUBA	FASHION DESIGNER	CHRISTIANITY		-		YES	NIL
6	F	29	28	29	1			-	YORUBA	SECRETARY	CHRISTIANITY		-		NIL	NIL
7	F	40	20	40	20			-	IGBO	CIVIL SERVANT	CHRISTIANITY		-		NIL	NIL
8	F	26	25	26	1		-		HAUSA	TRADING	CHRISTIANITY		-		YES	NIL
9	F	36	27	35	8		-		YORUBA	MEDICAL LAB. TECHNICIAN	CHRISTIANITY		-		NIL	NIL
10	F	35	21	31	10		-		YORUBA	HAIRSTYLIST	CHRISTIANITY		-		YES	NIL
11	F	31	22	24	2		-		YORUBA	HAIRSTYLIST	CHRISTIANITY		-		YES	NIL
12	F	41	39	41	2		-		YORUBA	TEACHING	CHRISTIANITY		-		NIL	NIL
13	F	32	29	32	3		-		YORUBA	HOUSEWIFE	CHRISTIANITY		-		NIL	NIL
14	F	29	26	29	3		-		YORUBA	EXPORTER	CHRISTIANITY	-			YES	NIL
15	F	34	29	33	4		-		YORUBA	FASHION DESIGNER	CHRISTIANITY		-		YES	NIL
16	F	31	29	31	2		-		YORUBA	BUSINESS	CHRISTIANITY		-		NIL	NIL
17	F	32	29	32	3		-		YORUBA	TEACHING	CHRISTIANITY		-		NIL	NIL
18	M	32	29	31	2		-		YORUBA	ENTREPRENEUR	MUSLIM		-		NIL	NIL
19	F	30	20	25	5		-		HAUSA	TRADING	MUSLIM	-			NIL	NIL
20	F	38	32	38	6		-		YORUBA	FASHION DESIGNER	CHRISTIANITY		-		NIL	NIL
21	F	30	23	24.5	1.5		-		YORUBA	FASHION DESIGNER	MUSLIM		-		NIL	NIL
22	F	25	23	25	2		-		YORUBA	FASHION DESIGNER	MUSLIM		-		NIL	NIL
23	F	32	27	30	3		-		IGBO	MARKETING	CHRISTIANITY		-		NIL	NIL
24	F	41	31	37	6		-		YORUBA	SELF EMPLOYED	CHRISTIANITY		-		NIL	NIL
25	F	29	27	29	2		-		YORUBA	FASHION DESIGNER	MUSLIM		-		NIL	NIL

26	F	25	23	25	2		-	YORUBA	FASHION DESIGNER	MUSLIM		-		NIL	NIL
27	F	32	25	32	7		-	YORUBA	BUSINESS	MUSLIM		-		NIL	NIL
28	F	31	29	31	3		-	YORUBA	TELECOM MUNICATOR	CHRISTIANITY		-		NIL	NIL
29	F	38	30	34	4		-	YORUBA	BUSINESS	CHRISTIANITY		-		NIL	NIL
30	F	29	26	28	2		-	YORUBA	HAIRSTYLIST	CHRISTIANITY		-		NIL	NIL
31	F	42	30	32	2	-		YORUBA	TRADING	CHRISTIANITY		-		NIL	NIL
32	F	31	26	31	7		-	YORUBA	TRADING	CHRISTIANITY		-		NIL	NIL
33	F	34	33	34	1		-	YORUBA	TRADING	CHRISTIANITY		-		YES	NIL
34	F	43	28	30	2	-		YORUBA	HAIR STYLIST	CHRISTIANITY		-		NIL	NIL
35	F	48	22	23	1	-		HAUSA	FASHION DESIGNER	MUSLIM		-		NIL	NIL
36	F	43	27	33	6	-		YORUBA	FASHION DESIGNER	CHRISTIANITY		-		NIL	NIL
37	F	30	24	25.5	1.5		-	YORUBA	FASHION DESIGNER	MUSLIM		-		NIL	NIL
38	F	35	25	26	1		-	YORUBA	TEACHING	MUSLIM		-		NIL	NIL
39	F	46	30	35	5		-	YORUBA	TEACHING	CHRISTIANITY		-		NIL	NIL
40	F	33	30	33	3		-	YORUBA	BUSINESS	CHRISTIANITY		-		NIL	NIL

## Appendix A2

### *Demographics of those Treating Infertile Couples (n = 10)*

NUMBER	CARER TYPE OF	SEX	RELIGION	TRIBE	AGE IN YEARS
1	FERTILITY SPECIALIST 1	FEMALE	ISLAM	YORUBA	44
2	FERTILITY SPECIALIST 2	MALE	CHRISTIANITY	YORUBA	54
3	FERTILITY SPECIALIST 3	MALE	CHRISTIANITY	YORUBA	56
4	FERTILITY SPECIALIST 4	MALE	CHRISTIANITY	YORUBA	62

5	FERTILITY SPECIALIST 5	MALE	ISLAM	YORUBA	48
6	TRADITIONAL HEALERS 1	MALE	MUSLIM	YORUBA	52
7	TRADITIONAL HEALERS 2	MALE	CHRISTIANITY	YORUBA	44
8	CLERIC 1	FEMALE	CHRISTIANITY	YORUBA	62
9	CLERIC 2	MALE	CHRISTIANITY	YORUBA	48
10	CLERIC 3	MALE	CHRISTIANITY	YORUBA	54

### Appendix A3

Analytical Comparison of the Participants' (Patients) Current Age, Age at Marriage and Infertility Period in Years.

AGE AT MARRIAGE		CURRENT AGE		INFERTILE PERIOD IN YEARS		AGE AT CONCEPTION	
Mean	27	Mean	33.675	Mean	3.725	Mean	30.65
Standard E	0.630425	Standard E	0.913845	Standard E	0.542711	Standard E	0.695959
Median	27	Median	32	Median	2.5	Median	31
Mode	29	Mode	32	Mode	2	Mode	31
Standard D	3.987159	Standard D	5.779662	Standard D	3.432406	Standard D	4.401631
Sample Va	15.89744	Sample Va	33.40449	Sample Va	11.78141	Sample Va	19.37436
Kurtosis	0.802874	Kurtosis	-0.12382	Kurtosis	12.45257	Kurtosis	-0.2696
Skewness	0.380679	Skewness	0.706067	Skewness	3.031971	Skewness	0.29374
Range	19	Range	23	Range	19	Range	18
Minimum	20	Minimum	25	Minimum	1	Minimum	23
Maximum	39	Maximum	48	Maximum	20	Maximum	41
Sum	1080	Sum	1347	Sum	149	Sum	1226
Count	40	Count	40	Count	40	Count	40

## Appendix B1

*List of Tables*

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Figure 4	The path to fertility: Choices and Obstacles
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Figure 12	Participant's Choice of Infertility Treatment
Figure 13	A flowchart Model of the Emotional Impact of Infertility. Source: Author's original diagram
Figure 14	The connections between Social and Cultural Factors in infertility
Figure 15	Decision-Making Routes in Infertility
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## Appendix C

*Picture showing the Analysis Tool for the study*

The screenshot displays the ATLAS.ti software interface. The title bar shows the project name: "Fertility Care Choices and their Psycho-social Implications for Couples in Ibadan, Nigeria - ATLA..". The ribbon includes tabs for File, Home, Search & Code, Analyze, Import & Export, Tools, and Help. The Home tab is active, showing icons for Add Documents, New Entities, Project Comment, Navigator, Documents, Quotations, Codes, Memos, Networks, and Links. The Quotations icon is highlighted.

The main workspace features a large heading "Fertility Care Choices and t..." and a subtitle "A doctoral research programme focusing on the qualitative study of couples experiencing infertility in Ibadan, Nigeria." Below this is a "Project Overview" section with a table of project statistics:

Entity Type	Count
Documents	50
Codes	401
Quotations	586
Memos	71
Networks	13

Additional project details include: Created by Solomon Kupolati on 08/01/2024, Last modified on 03/06/2024, Current user Solomon Kupolati, and Version 24.1.1.30813. A sidebar on the left shows an "Explore" panel with a search bar and a list of project entities: Documents (50), Codes (194), Memos (71), Networks (13), Document Groups..., Code Groups (5), Memo Groups (5), Network Groups (0), and Multimedia Transc...

## Appendix D1

### *Research Tools (English Language)*

#### Open-ended Questions for Patients who have overcome infertility

1. What is your age, age at marriage, educational status, religion, racial group, occupation, way of life, and financial standing?
2. What do you think about balancing your personal wishes with society's norms when it comes to having children?
3. What motivates you to have children?
4. How would you feel if you were unable to have children despite your best efforts?
5. What is the cause of your inability to conceive?
6. What are your thoughts on donor egg, donor sperm or surrogacy? Do you consider it to be a worthwhile solution?
7. What do you know about childbearing age?
8. When did you finally become a mother? Describe your path to becoming a mother.
9. Where did you go for treatment during your infertility? What factors influenced your decision or your choice of treatment provider? Were the decisions you made helpful or harmful to your desired outcomes?

10. Recount your positive and negative experiences with family, friends, and society during your infertility period.

11. How have the experiences impacted your life and relationships with your partner, career, extended family, and community?

12. What steps did you take to recover from infertility? Were your family or the government involved in your recovery?

13. What services or assistance would you have appreciated having had during your infertility journey that could have made a significant difference?

14. What recommendations would you provide to infertile couples who continue to have difficulty conceiving?

#### Open-ended Questions for reproductive specialists

1. Please confirm your extensive experience treating couples with infertility. What are your thoughts on the relationship between getting pregnant and age and other negative lifestyle factors, such as alcohol abuse, cigarette smoking, and obesity at the time of presentation?

2. What types of fertility treatments and procedures do you offer infertile couples, and what are your success rates?

3. Is there a time limit before fertility treatment is regarded as a failure, and how do patients cope with the inability to get pregnant? Is there depression, suicidal thoughts, or social isolation?

4. What are the common social and psychological consequences for couples who are unable to conceive despite treatment? What psychotherapy services do you offer for couples at your clinic?

5. What are your thoughts on couples who undergo evaluation and are deemed to be normal, yet are unable to conceive? Could a change in spouse help these patients?

6. What are your thoughts on patients who know the exact reason of their infertility and want treatment that is specific to their problem without further evaluation?

7. What is your experience with patients who intentionally choose to be infertile for social or health reasons? Do you suppose they do not want to become pregnant for social or cultural reasons?

8. Why do you think some infertile married women wait until after menopause to try infertility treatment?

9. What are your thoughts on specific cases of infertility that are hopeless or defy medical intervention, and would you recommend spiritual solutions to these patients if you had them?

10. Have you seen Lesbian, Gay, Bisexual, Transgender and Queer (LGBTQ) couples that want to have children in your clinic? What is the preferred treatment option?

11. What do you think of couples who seek advice in complex family situations?

12. What advice would you provide to infertile couples who are still attempting to conceive?

Open-ended questions for Traditional doctors, Clerics and Clergies.

1. How frequently do you treat infertile couples, and at what age range do they typically present?

2. What types of herbal or spiritual treatment do you offer to infertile couples?

3. How do you adapt your patient's treatment to their specific needs?

4. Is there a time limit before fertility treatment is regarded as a failure, and how do patients cope with the inability to get pregnant? Is there depression, suicidal thoughts, or social isolation?

5. Why do you believe couples opt for spiritual and herbal intervention?

6. Do you think your patients understand their own infertility?

7. Please share your thoughts on spiritual/herbal remedies that do not produce favorable results. What advice would you offer your patients moving forward?

8 What do you think of couples who seek advice in complex family situations?

9 Explain, based on your extensive experience with infertile couples, how they face the infertility challenge in church/mosque/shrine. What specific programs are designed to assist them?

10 Is it true that certain cases of infertility are not reversible and if so, would you refer them to a hospital for comprehensive evaluation?

11. How did you acquire the ability to treat couples with infertility?

12. What advice would you provide to infertile couples who are still attempting to conceive?

## Appendix D2

### *Research Tools (Local Language –Yoruba)*

#### **Awon irinse Iwadii**

Awon Ibeere fun Awon Tokotaya ti o ti bori airomobi

1. Ki ni ojof ori yin, omo odun melo niyin nigbati ese igbeyawo, iwe melo le ka, kini esin yin, eya wo niyin, ise wo le nse, se e nmu oti tabi siga, ati se aje nwogba?
2. Nje nkan ti awon eniyan nso, ni ipa lori igbese yin nigba ti e nwomo?
3. Kilode gan ti omo nini fi nwuyin?
4. Bawo ni ko ba se ri lara yin ti e ko ba d'olomo pelu gbogbo igbinyaju yin?
5. Kini idi ti e ko fi tete loyun?
6. Kini awon ero yin lori eyin oluranlowo, ato oluranlowo, tabi abani gbe oyun? Se e ro wipe ona abayo ti odara ni?
7. Kini e mo nipa igba ti oto si obirin lati bimo/loyun/ lo si le oko?
8. Nigbawo ni e di olomo? E se apejuwe ona ti e gba lati di olomo?
9. Nibo ni e ti lo fun itoju nigba ailesabiyamo yin? Nje ipalara tabi idojuko/iwosi ti ara yin ko wa fun yin nigba ti e nwoju olorun tabi gbogbo igbese yin lo ja si rere?
10. So awon iriri rere ati awon alebu ti e ri lodo ebi, awon ore, ati awujo lakoko ailoyun yin?

11. Bawo ni awon iriri airomobi se ni ipa lori ibagbe pelu oko yin, ati awon ibatan pelu alabasepo yin, ise yin, awon ebi yin, ati gbogbo aladugbo yin?

12. Awon igbesè wo ni e gbé láti di olómọ? Njé idile yin tabi ijoba ran yin lowo nigba ti e nwomo?

13. Awon ipa tabi iranlowo wo ni eyin iba moriri nigba irin ajo ati di olomo ti iba se iyato nla fun irin ajo ati di olomo yin?

14. Awon abá wo le máa fún awon tokotaya tí kò lóyún tí wón sù ní ìṣòro bíbímọ?

.

### **Awon ibeere fun awon Alamoja Ibisi**

1. Jowo jerisi iriri nla re nipa itoju awon tokotaya ti won ni idaduro ati bimo. Kini awon ero re lori ibatan laarin nini oyun ati ojo-ori ati awon okunfa igbesi aye odi miiran, gegebi ilokulo oti-lile, mimu siga, ati isanraju ni akoko ti won wa si ile-iwosan re?

2. Iru awon itoju ati awon ilana wo ni o funni ni awon tokotaya ti won nwa omo, ati kini awon osuwon aseyori re?

3. Nje akoko kan wa pato ti a maa so wipe itoju lati di abiyamo ti di ikuna, ati bawo ni awon tokotaya ti o ni idaduro se koju ailagbara lati loyun? Nje isoriko, ironu igbemi ara eni, tabi ipinya lawujo wa?

4. Kini awon isoro awujo ati ti opolo ti o wopo fun awon tokotaya ti ko le loyun leyin itoju? Awon ise itoju okan wo ni o fun awon tokotaya ni ile-iwosan re?

5. Ki ni ero re lori awon tokotaya ti won se ayewo ti awon dokita won si ri i pe won we, won yan kankain, sibe ti won ko le loyun? Se igbese lati ni oko tabi aya miran ma se iranlowo fun awon wonyi?

6. Kini awon ero re lori awon tokotaya ti o ni awon isoro iloyun ti o mo idi gangan ti ailesabiyamo won ati pe won fe itoju pato si isoro won laisi igbelewon siwaju sii?

7. Ki ni iriri re pelu awon tokotaya ti won ni ailoyun ti won momo yan lati je alailibimo fun ajose tabi ilera? Se o ro pe won ko fe lati loyun fun awon idi awujo tabi ti asa?

8. Ki ni ro to o fi ro pe awon obinrin kan ti ko loyun ma ni duro de igba ti nkan ose ba ti dawo duro lati gbijanju itoju ailoyun?

9. Kini awon ero re lori awon ti ko le loyun tabi awon ti dokita oyinbo ti ropin ati pe se iwopo yoo gba won ni imoran lati to ipa adura tabi ki won fi ese ile to?

10. Nje o ti ri Lesbian, Gay, Bisexual, Transgender ati Queer (LGBTQ) awon tokotaya ti o fe lati ni omole ni ile-iwosan re? Kini asayan itoju ayanfe won?

11. Ki ni ero ni awon tokotaya ti won nfe imoran ni ipa to daju ninu idile won?

12. Imoran wo lo ma fun awon tokotaya ti ko loyun ti won si ni gbijanju lati loyun?

**Awon ibeere fun Awon Dokita Ibile, Awon alufaa, ati Awon alfa.**

1. E se alaye bi awon tokotaya ti won fe loyun se nwa si odo yin si, ati kini ojo ori awon ti e ma saba ntoju?

2. Iru itoju wo ni e nse fun awon tokotaya ti won nwa omo?

3. Bawo ni e se ma nmo iru itoju pato to to si awon tokotaya kokan ti won nwa omo?

4. Nje akoko kan wa pato ti a maa so wipe itoju lati di abiyamo ti di ikuna, ati bawo ni awon tokotaya ti o ni idaduro se ma ngba iru irohin to ikuna yi? Nje ari awon kan ti won fe gbemi ara won tabi ti won ti ro ara won pin nitori aileloyun?

5. Kini idi ti e fi gbagbo pe awon tokotaya fi ni igbagbo si egboigi/ Adura

6. Se e ro pe awon tokotaya ti ko ti sabiyamo mo idi aile lomo won?

7. E jowo e pin (share) awon ero yin lori awon oogun egboigi ti ko tii sise/ adura ti ko ti gba.

8. Ki ni e ro nipa awon tokotaya ti won nfe imoran nipa ipò tó takoko nínú ìdílé won?

9 E se alaye, to da lori iriri nla re pelu awon tokotaya ti o ni adojuko ailebimo, bawo ni won se koju ipenija aibimo ni ile ijosin / moşalaşi / adahunse. Awon eto pato wo ni e gbekale lati se iranlowo fun won?

10. Ẹ́ ńlòdòtọ́ nì pé àwọ̀n ọ̀kọ̀taya kan tí wọ̀n ní idojuko àìlọ̀mo kan wa tí oro won takoko tobe tí kò sí ona abayo, tó bá rí bẹ̀ẹ̀, ẹ́ e le gba won ní iyanju wípe kí wọ̀n lọ sí ilé ìwòsàn oyinbo fún àyẹ̀wò tó kún rẹ̀rẹ̀?

11. Báwo le ẹ́ ní imo láti toju àwọ̀n ọ̀kọ̀taya tí wọ̀n jẹ́ aláìlẹ̀bímọ́?

12. Ìmọ̀ràn wo le máa fún àwọ̀n ọ̀kọ̀taya tí kò lóyún tí wọ̀n ẹ́ n gbiyànjú láti lóyún?

## Appendix E: Research Approvals

## Appendix E1

*Letter to the Oyo-State Ministry of Health Seeking Permission for Research in Ibadan*

05 July 2022  
Through,

The Ethical Committee,  
Oyo-State Ministry of Health,  
Secretariat, Ibadan.

To

The Honourable commissioner for Health  
Oyo State  
Ibadan

Respected Sir,

Letter Seeking Permission to Conduct Research

I am Dr Solomon Kehinde Kupolati, a doctoral student at Unicaf University.

I am writing this letter to seek your permission and allowance to conduct a qualitative research titled "Fertility care choices and its psycho-social implications on couples in Ibadan, Oyo-State, Nigeria." In Ibadan.

The research will involve conducting interviews and administering open ended questionnaires for fertility doctors, adult women who have overcome infertility, some clerics and clergymen.

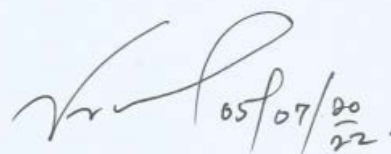
There is no risks to the participants and no samples will be taken.

I shall be highly obliged if you approve my request.

Thanking you in advance

Yours Truly,

Solomon Kehinde Kupolati  
Doctoral Student, Unicaf University  
MB, BS (IB<sup>89</sup>.); PGDip. (UK), MSc (UK), MBA (UK), F.MAS-GYNAE (India), PhD-  
(Scholar-Unicaf)  
Tel: +2348037143851  
E-mail: juyikupolati@yahoo.co.uk




65/07/2022

## Appendix E2

*Approval for Implementation of Research by the Oyo-State Ministry of Health, Ibadan*

TELEGRAMS..... TELEPHONE.....



**MINISTRY OF HEALTH**  
DEPARTMENT OF PLANNING, RESEARCH & STATISTICS DIVISION  
PRIVATE MAIL BAG NO. 5027, OYO STATE OF NIGERIA

Your Ref. No. ....  
All communications should be addressed to  
the Honorable Commissioner quoting  
Our Ref. No, AD 13/479/ 44513<sup>e</sup>

th  
20 July, 2022


The Principal Investigator,  
Department of Unicaf Doctoral Studies,  
Faculty of Doctorate of Philosophy,  
Unicaf University, Old International Airport,  
7130 Larnaca, Cyprus.

**Attention: Solomon Kehinde**

**ETHICS APPROVAL FOR THE IMPLEMENTATION  
OF YOUR RESEARCH PROPOSAL IN OYO STATE**

This is to acknowledge that your Research Proposal titled: "Fertility Care Choices and Their Psycho-Social Implications for Couples in Ibadan, Nigeria." has been reviewed by the Oyo State Ethics Review Committee.

2. The committee has noted your compliance. In the light of this, I am pleased to convey to you the full approval by the committee for the implementation of the Research Proposal in Oyo State, Nigeria.
3. Please note that the National Code for Health Research Ethics requires you to comply with all institutional guidelines, rules and regulations, in line with this, the Committee will monitor closely and follow up the implementation of the research study. However, the Ministry of Health would like to have a copy of the results and conclusions of findings as this will help in policy making in the health sector.
4. Wishing you all the best.

  
 Dr. Abbas Gbolahan  
 Director, Planning, Research & Statistics  
 Oyo State, Research Ethics Review Committee


## Appendix E3

## Unicaf University Research Ethics Committee (UREC) Provisional Approval

<b>Unicaf University Research Ethics Committee Decision</b>	
<b>Student's Name:</b>	Solomon Kehinde Kupolati
<b>Student's ID #:</b>	R2101D11725156
<b>Supervisor's Name:</b>	Hamed Ademola Adetunji
<b>Program of Study:</b>	UUZ: PhD Doctorate of Philosophy
<b>Offer ID /Group ID:</b>	O37443G39065
<b>Dissertation Stage:</b>	1
<b>Research Project Title:</b>	Fertility care choices and their psycho-social implications for couples in Ibadan, Nigeria
<b>Comments:</b>	<p>Recommendations:</p> <p>4c: Traditional healers and clergy who treat infertile couples and are uneducated or semi-literate would be evaluated through direct interviews and observation. You need to match the tools you are mentioning with the tools selected at section 3. If you are using interviews and questionnaires then you should choose accordingly. Also, note that if the observation is to be conducted then an observation checklist must be submitted to the School at Dissertation Stage 3.</p> <p>5: Further Approvals: At this point, information of any other approval needed, other than the ethics clearance from UREC, Informed consent, or Gatekeeper Letter should be provided. If any kind of institutional permission (e.g. Ministry of Health) or approval from a local ethics or professional regulatory body is required should be included here. All researchers are advised to check the regulations pertaining to research and General Data Protection Regulation (GDPR) of the country in which the research will take place as each country may have different restrictions on conducting research.</p>
<b>Decision*:</b>	A. Provisionally approved without revision or comments
<b>Date:</b>	30-Sep-2022
<small>*Provisional approval provided at the Dissertation Stage 1, whereas the final approval is provided at the Dissertation stage 3. The student is allowed to proceed to data collection following the final approval.</small>	

## Appendix E4

## Unicaf University Research Ethics Committee (UUREC) Final Approval

 UUREC Decision, Version 2.0

**Unicaf University Research Ethics Committee  
Decision**

**Student's Name:** Solomon Kehinde Kupolati  
**Student's ID #:** R2101D11725156  
**Supervisor's Name:** Dr Hamed Ademola Adetunji  
**Program of Study:** UUZ: PhD Doctorate of Philosophy  
**Offer ID /Group ID:** O60047G64430  
**Dissertation Stage:** 3  
**Research Project Title:** Fertility care choices and their psychosocial implications for couples in Ibadan, Nigeria.

**Comments:** No comments. -

**Decision\*:** A. Approved without revision or comments

**Date:** 28-Sep-2023

\*Provisional approval provided at the Dissertation Stage 1, whereas the final approval is provided at the Dissertation stage 3. The student is allowed to proceed to data collection following the final approval.

Appendix F

Gatekeeper letter sample obtained before conducting research.

