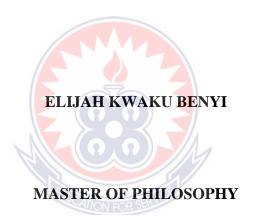
UNIVERSITY OF EDUCATION, WINNEBA

INFERTILITY, MARITAL SATISFACTION, AND COPING STRATEGIES AMONG MARRIED INDIVIDUALS IN KOLE KLOTTEY MUNICIPALITY: IMPLICATION FOR COUNSELLING



UNIVERSITY OF EDUCATION, WINNEBA

INFERTILITY, MARITAL SATISFACTION, AND COPING STRATEGIES AMONG MARRIED INDIVIDUALS IN KOLE KLOTTEY MUNICIPALITY: IMPLICATION FOR COUNSELLING



A thesis in the Department of Counselling Psychology, Faculty of Applied Behavioural Sciences in Education, submitted to the School of Graduate Studies, in partial fulfillment of the requirements for the award of the degree of Master of Philosophy (Counselling Psychology) in the University of Education, Winneba

DECLARATION

Student's Declaration

Date:

I, Elijah Kwaku Benyi, declare that this thesis, with the exception of quotations and references contained in published works, which have all been identified and duly acknowledged, is entirely my own original work, and it has not been submitted, either in part or whole, for another degree elsewhere.

Signature:
Date:
Supervisor's Declaration
I hereby declare that the preparation and presentation of this work was supervised in
accordance with the guidelines for supervision of thesis as laid down by the
University of Education, Winneba.
Professor Stephen Antwi-Danso (Supervisor)
Signature:

DEDICATION

I dedicate this research work to my dear wife and three daughters.



ACKNOWLEDGEMENT

I express my special gratitude to Professor Stephen Antwi-Danso, my supervisor for his analytical supervision, which provided me with great clarity for this work. It was a privilege and a blessing for me to study under him.

Also, I would like to express my sincere thanks to my lecturers especially Dr. Hanna Acquaye, Dr. Petter Eshun, and Dr. Emefa Bonsi who counselled me when the going became tough.

I am deeply grateful to my course mates especially, Mrs. Rosemond Asomaudua Adjei Agyemang, Mr. Michael Ofori, Mr. Seth Annorson, Rev. Joel Copson and Rev. Richard Essuman for their encouragement and support.

My deepest gratitude goes to my dear wife, Dorcas Twum Benyi for her support both physically, emotionally and spiritually. I also owe much thanks to my three daughters, Portia Benyi, Nhyira Benyi-Asumpo and Fousua Benyi-Asumpo who had sincerely prayed for me with much love, care and enthusiasm. I really love you for the support and encouragement. I appreciate all that you have given to me.

Finally, to all infertile married individuals who took time to participate in this research, I say God bless you all. To all those who supported me one-way or the other, God replenish whatever you have spent on me.

TABLE OF CONTENTS

Content	Page
DECLARATION	iii
DEDICATION	iv
ACKNOWLEDGEMENT	v
TABLE OF CONTENTS	vi
LIST OF TABLES	xi
LIST OF FIGURES	xii
ABSTRACT	xiii
CHAPTER ONE: INTRODUCTION	1
1.1 Background to the Study	1
1.2 Statement of the Problem	4
1.3 Purpose of the Study	5
1.4 Objectives of the Study	6
1.5 Research Questions	6
1.6 Research Hypotheses	6
1.7 Significance of the Study	7
1.8 Definition of Terms	7
1.9 Delimitation:	8
1.10 Organization of the Study	9
CHAPTER TWO: REVIEW OF RELATED LITERATURE	10
2.0 Introduction	10
2.1 Theoretical Underpinning of the Study	10
2.1.1 Biopsychosocial Model	10

University of Education, Winneba http://ir.uew.edu.gh

2.1.	2 Systemic-Transactional Model (STM)	11
2.1.	3 Dynamic goal theory of marital satisfaction	13
2.2	Conceptual framework of the study	13
2.3	Concept of Infertility	16
2.4	Perceived Causes of Infertility	19
2.5	Concept of Marital Satisfaction	21
2.5.	1 Factors Influencing Marital Satisfaction	22
2.5.	2 Gender and marital satisfaction	24
2.5.	3 Age and marital satisfaction	25
2.6	Coping Strategies of Infertile married individuals	25
2.7	Effects of Infertility on Marital Satisfaction	27
2.8	Summary of Literature Review	29
СН	APTER THREE: METHODOLOGY	30
	Introduction	30
	Philosophical Underpinnings	30
	Research Approach	32
	1 Advantages	33
<i>3.2.</i> .	2 Disadvantages	34
3.3	Research Design: Sequential Explanatory Mixed Method	34
3.4	The Setting of the Study	35
3.5	Population of the Study	37
3.6	Sample Size for the Quantitative Phase	38
3.7	Sampling Techniques	38
3.8	Proportional Sampling	39
3.9	Sample and Sampling Procedure for the Qualitative Phase	40

3.10 Research Instruments	41
3.10.1 Marital Satisfaction Inventory (MSI)	41
3.10.2 Perception about causes of Infertility Inventory (PACI)	43
3.10.3 The semi-structured interview guide	44
3.11 Pilot Testing	45
3.12 Reliability and Validity	45
3.12.1 Validity	45
3.12.2 Reliability	46
3.13 Data Collection	47
3.14 Data Analysis	49
3.14.1 The Qualitative Data Analysis	50
3.15 Trustworthiness	54
3.15.1 Credibility	54
3.15.2 Transferability	56
3.15.3 Dependability	57
3.15.4 Confirmability	57
3.16 Ethical Considerations	58
3.17 Summary	59
CHAPTER FOUR: RESULTS AND DISCUSSIONS	60
4.0 Introduction	60
4.1 Quantitative Data Analysis	60
4.2 Research Question One	61
4.3 Research Question Two	64
4.3.1 Hypothesis 1	69
4.4 Phase II Qualitative Analysis	72

University of Education, Winneba http://ir.uew.edu.gh

4.4.1 Introduction of Themes	12
4.5 Research Question Three	72
4.5.1 Communication	72
4.5.2 Sexual life	73
4.5.3 Financial support	74
4.5.4 Respect	75
4.5.5 Commitment	77
4.5.6 Appreciation	78
4.6 Research Question Four	79
4.6.1 Stigmatization/ shame	79
4.6.2 Self-isolation	80
4.6.3 Coping strategies	81
4.6.4 Support and encouragement	82
4.6.5 Spiritual support	83
4.5.6 Psychological feelings	84
4.6 Integration of Quantitative and Qualitative Data	85
4.6.1 Perceived Causes of infertility	86
4.6.2 Factors influencing marital satisfaction of infertile married individuals	86
4.6.3 The effect of infertility on marital satisfaction	87
4.6.4 The coping strategies of infertile married individuals	88
4.7 Discussion of Findings	88
4.7.1 Perceived causes of infertility	88
4.7. 2. The extent to which infertile married individuals satisfied in their marriages	90
4.7.3 The effect of infertility on marital satisfaction	91
4.7.4 Coping Strategies of infertile married individuals	92

4.7.5 Infertility as a predictor of marital satisfaction	94
4.7.6 Comparison of marital satisfaction of infertile young and old married	
individuals	94
4.7.7 Comparison of marital satisfaction of infertile male and female	95
CHAPTER FIVE: SUMMARY OF FINDINGS, CONCLUSION AND	
RECOMMENDATIONS	96
5.0 Introduction	96
5.1 Summary	96
5.2 The Summary of Key Findings of the Study	97
5.3 Conclusions	98
5.4 Implication for Counselling	98
5.5 Recommendations	99
5.6 Contributions to Further Knowledge	100
5.7 Suggestions for Future Research	101
REFERENCES	103
APPENDIX A	117
APPENDIX B	118
APPENDIX C	129
APPENDIX D	132
APENDIX E	119

LIST OF TABLES

Tal	Table	
1:	Distribution of sample	40
2:	Reliability of Marital Satisfaction Inventory	47
3:	Reliability of Perception about causes Infertility Inventory	47
4:	Demographic Characteristics of Respondents (n = 271)	60
5:	The Means (M) and Standard Deviation (SD) distribution of Married individuals' perception about cause of infertility	62
6:	Responses of married individuals on their marital satisfaction	64
7:	The level of marital satisfaction of respondents	68
8:	A summary simple Linear Regression on infertility predicted Marital Satisfaction	69
9:	T-test comparing marital satisfaction of infertile young and old married individuals	71

LIST OF FIGURES

Figure	Page
1: The conceptual model of the study	14
2: Map of Korle Klottey Municipal District, Greater Accra	37



ABSTRACT

The study explored infertility, marital satisfaction and coping strategies among married individuals in Korle Klottey Municipality in the Greater Accra Region of Ghana. This study is underpinned on the Bio-psycho-social Model, Systemic Transactional Model and Dynamic Goals of Marital Satisfaction as the theoretical framework. The study made use of Mixed Method Sequential Explanatory Design. The study selected two hundred and seventy-one (271) respondents for the quantitative phase while fifteen (15) participants were selected for the qualitative phase. Simple random sampling technique was used to select ten (10) churches while proportional sampling technique was used to select the respondents for the quantitative phase of the study. Also, convenience sampling technique was used to select the participants for the qualitative phase of the study. The study made use of three instruments for data collection. The marital satisfactory Inventory (MSI), and Perception about causes of infertility inventory (PACI) were used to gathered quantitative data while semi-structured interview guide was used to gather data for the qualitative phase. The quantitative data was analyzed by means of mean, percentages and standard deviation. The research hypotheses were tested using Simple Linear Regression and Independent Sample t-test. Thematic analysis was used to analyze the qualitative data obtained. Findings revealed that; first, infertile married individuals perceive abortion, low sperm count, evil spirit, curses, taboo, sexual disorder as causes of infertility, while they face lots of stigmatization from the public. Also, it became clear that, infertile married individuals encounter infidelity, divorce and separations coupled with physical, emotional and verbal abuse in their marriages. Again, they experienced psychological issues such as stress, depression, trauma, anxiety and suicidal ideation. It became evident that to deal with all the above challenges, married individuals used coping strategies such as self-isolation, avoidance, withdrawal, social support, spiritual activities like prayer, meditation, reading the word of God and attending religious programs. It was recommended that the clergy in connection with counselling psychologist and clinical psychologists in the community should help sensitize and provide counselling for infertile married individuals to help them deal with psychological problems associated with infertility. Finally, Health professional are entreated to create awareness for counselling psychologists to interact with their patients while treating married individuals with infertility conditions in Korle Klottey Municipality.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Infertility is a critical reproductive health issue that affects millions of married individuals globally (Ombelet,2020). It is the failure of a sexually active, non-contracepting married individuals to attain pregnancy after twelve months of normal, unprotected penial-vaginal intercourse. In the study of Cox, Thoma, Tchangalova, Mburu, Bornstein, Johnson, & Kiarie (2022), it is assessed that approximately 12 percent of married individuals in their reproductive age experience infertility. According to Taebi, Kariman, Montazeri and Majd (2021) maintained that infertility affects the physical, emotional and social health of the married individuals, with women to a great extent bearing the brunt of society. Samadaee-Gelehkolaee, McCarthy, Khalilian, Hamzehgardeshi, Peyvandi, Elyasi and Shahidi, (2016) observed that infertility has a significant impact in the welfare and functioning of married individuals' life, including marital satisfaction. According to Amiri, Sadeqi, Hoseinpoor and Khosravi, (2016) although there are advancements in reproductive health treatments, infertile married individuals are still struggling with issues of infertility.

It is maintained that, women's identities are shaped by pregnancy and parenting, and the hardship of infertility has an emotional and social impact on these individuals. Therefore, being unable to have children is a barrier to reaching the aim of becoming parents, which transforms the lives of couples. Additionally, the shame associated with infertility in social settings causes a great deal of internal pain that has impact on married individuals' marriages (Tabatabaee, Fallahi, Shakeri, Baghi, & Ghanei Gheshlagh, 2022).

In the study of Nukunya (1992) it is posited that the traditional Ghanaian society is pro-natal and therefore given birth to children to continue with the family name is very important to any married individual. Osei, (2014) stated that married individuals without children in Ghanaian society are most likely dealing with issues of infertility. Arhin, Mensah, Agbeno, Badii and Ansah, (2019) revealed that the predominance of infertility in a Ghanaian setting is estimated as 12.3 percent with primary infertility being higher among married individuals.

Infertility has obliterating consequences for married individuals such as frequently encountering stigma, shame, anxiety, sadness, shunning, and low self-esteem (Ofosu-Budu, & Hanninen, 2020; Li, Cheung, & Liu, 2022). In societies where the continuation of the family name through the birth of a child could safeguard marriage by ensuring legacy rights, and serve as social security in old age (Azize Diallo, Anku, & Darkoa Oduro, 2024).

It noted that, infertility is not just a medical condition but a deep-seated and socially embedded phenomenon. Despite the progressions in reproductive medication, and treatment alternatives, the mental and emotional measurements are yet to be understood (Gleicher, 2018; Singh, & Dewani, 2022). Again, fertility treatment in Ghana is financially burdensome because the National Health Insurance Scheme does not cover for the cost of infertility (NHIS). Therefore, married individuals have to pay for all service charges and treatment (Azize Diallo, Anku, & Darkoa Oduro, 2024). In the study of Okere and Ubani, (2020), it is posited that marriage is legal union of two persons who are partners in a personal relationship. It is maintained that to get married is an occasion that is frequently treasured and anticipated with much excitement, optimism, and aspirations of an eventual fruitful married life. In view of this, married individuals envision a peaceful, joyful family, free from strife, enmity,

violence, conflict, and instability. Successful marriage and married life provide for many physical and mental needs in a secure setting that affect people's mental health. Marriage is an institution every individual place high value on. This explains why people continue to get married, and desire to marry despite all the challenges and heartaches connected with marriage and family life in the modern world (Okere, & Ubani, 2020).

Marital satisfaction is a concept that refers to a positive assessment of one another in a marital relationship (Narciso, 2001; Ferreira, Antunes, Duarte, & Chaves, (2015). Marital Satisfaction refers to once sexual partners' expectations of one another (Samadaee-Gelehkolaee, et al, 2016). It is noticed that infertility has a detrimental impact on marital satisfaction. Marital dissatisfaction could harm social relationships, erode cultural values, and increase social deviations among married individuals. In addition, marital satisfaction is one of the indicators of life satisfaction and can influence job satisfaction, and mental health (Amiri, Sadeqi, Hoseinpoor, & Khosravi, 2016). Due to the historical, religious, and cultural significance of bearing children, infertility has emerged as a contributing factor to divorce, domestic violence, family conflicts, and males entering second marriages. Despite the fact that both men and women are equally responsible for infertility, in traditional communities, it is seen as a women's problems. Therefore, where infertility is caused by men, women have a greater share of the blame (Tabatabaee, Fallahi, Shakeri, Baghi, & Ghanei Gheshlagh, 2022). It is observed that many infertile women facing stigmatization. This stigmatization experience lowers their self-esteem and causes depression (Quashie, & Andrade, 2017).

According to Okere and Ubani (2020), the absence of children in a marriage a tragic experience that leads to anxiety and health problems. In view of this, infertility causes suffering, isolation, trauma, depression, stress, and affects marital satisfaction. This study aims to explore how infertility affects married individuals, their level of marital satisfaction and how they cope with it.

1.2 Statement of the Problem

Infertility among married individuals is a global health issue (Razeghi-Nasrabad, Abbasi-Shavazi, & Moeinifar, 2020), affecting 16-26% of European women (Dourou, Gourounti, Lykeridou, Gaitanou, Petrogiannis, & Sarantaki, 2023) and leading to divorce and social rejection in African communities like the Bangangte tribe and Ekiti region of Nigeria (Ogunlaja, Bakare, Bobo, Idowu, Ogunlaja, Abiola, & Olasinde, 2022). In Ghana, infertility is a serious problem (Ofosu-Budu & Hanninen, 2021), with childbearing being a primary goal of marriage. Therefore, women without children may be labeled as witches and stigmatized (Yaw Osei, 2014). It is important to address the psychological and social challenges faced by infertile individuals in order to improve their well-being and reduce the negative consequences (Kussiwaah, Donkor, & Naab, 2017). In the Korle Klotey Municipality, infertility among married individuals has become a pressing issue, leading to divorce, separation, and mental health problems. This has been observed through counselling sessions and church events. Infertile individuals often face stigmatization and isolation, affecting their well-being and ability to participate in social activities. The psychological impact of infertility is significant, impacting both personality and health.

In Ghana, some studies on infertility and Marital Satisfaction among married individuals were carried out. For instance, Asante-Afari, Doku, and Darteh, (2022) conducted a study on "The transition to motherhood following the use of assisted reproductive technologies: Experiences of women in Ghana". Ofosu-Budu, and Hänninen, (2021) also conducted a study on "The explanations for infertility: The case of women in rural Ghana". Also, a study was conducted by Tabong, & Adongo, (2013) on "Understanding the social meaning of infertility and childbearing in Northern Ghana". Additionally, Dabone, (2012) conducted a study on "Marital satisfaction among married people in Sunyani municipality". Finally, Bentil, (2021) conducted a study on "Marital Satisfaction among Spouses in Inter-and Intra-Ethnic Marriages in the Kumasi Metropolis, Ghana."

The researcher notes that previous studies used both quantitative and qualitative methods, but this study employs a Sequential Explanatory Mixed Method Design to provide a detailed explanation of quantitative data results. The study, therefore, aims to address a methodological gap and advocate for infertile and for that matter married individuals by providing strategies to help them integrate this challenge in the society.

1.3 Purpose of the Study

The purpose of this study is to explore the experiences of infertile married individuals and how this phenomenon influences their marital satisfaction and the coping strategies they adopt in their marriage in Korle Klottey Municipality.

1.4 Objectives of the Study

The following were the objectives of the study:

- To find out the perceived causes of infertility among married individuals in Korle Klottey Municipality
- 2. To examine the extent to which married individuals satisfied with their marriages in Korle Klottey Municipality.
- 3. To examine the effect of infertility on marital satisfaction among married individuals in Korle Klottey Municipality.
- 4. To describe how married individuals cope in their marriage in the Korle Klottey Municipality.

1.5 Research Questions

The following research questions guided the study:

- 1. What are the perceived causes of infertility among married individuals in Korle Klottey Municipality?
- 2. To what extent do infertile married individuals satisfy with their marriage in Korle Klottey Municipality?
- 3. How does infertility affect marital satisfaction of married individuals in Korle Klottey Municipality?
- 4. How do infertile married individuals cope with their marriages in the Korle Klottey Municipality?

1.6 Research Hypotheses

The following hypotheses were formulated and tested in the study:

1. Ho: Infertility will not statistically significantly predict marital satisfaction of married individuals.

H₁: Infertility will statistically significantly predict marital satisfaction of married individuals.

2. Ho: Marital satisfaction of infertile young married individuals will not be different from infertile old married individuals.

H₁: The marital satisfaction of infertile young married individuals will be different from infertile old married individuals.

1.7 Significance of the Study

The study upon completion will be beneficial to Counselors, Religious Leaders, Couples, and Health professionals. To counselors, the recommendation will help both counselors and paraprofessionals to avail themselves during counselling sessions so that infertile married individuals who were unhappy in their marriages can get support. Again, findings assisted religious leaders to be aware of some of the marital issues that their members encounter in their marriages and assist them accordingly. Also, the findings made infertile married individuals realize that marriage was meant to be enjoyed and that they should put in effort to make their marriages a happy one. Again, the finding of the study provided information on the need to intensify the treatment of infertility among married individuals in the Korle Klottey Municipality. Lastly, the findings were intended to throw more light on further research on the issues of infertility in order to better understand and assist married individuals in their marriage.

1.8 Definition of Terms

Marriage: it is defined as any partnership in which the pair has gone through all the procedures recognized in society for the purposes of sexual intercourse, raising a family, or companionship.

Marital Satisfaction: Is a sense of happiness, satisfaction, and joy experienced by the husband or wife when they consider all aspects of their marriage.

Infertility: It is defined as a condition when a clinical pregnancy cannot be established following 12 months of regular, unprotected sexual activity.

Infertile married individuals: Married individuals without biological children

Coping Strategies: Coping strategies can be described as the ways in which couples adapt to the situation of being childless after making concerted efforts in a period of time.

1.9 Delimitation:

This study is limited to participants who are married, and are eighteen years and older. Also, the study is limited to primary infertile married individuals living in Korle Klottey Municipality. The study is limited to participants who agreed to take part in the study. Respondents were selected from ten (10) churches located in the Korle Klottey Municipality. The rationale for conducting the study using the churches is that, the issue of infertility among infertile married individuals was identified during the Annual Family Week Celebration organized by the Seventh-day Adventist Church. During the period, counselling sessions were held for those with marital challenges. It was through these meetings that the researcher had the knowledge of infertility which has affected many of the participants. In view of this the research decided to conduct a study exploring the effects of infertility and the coping strategies used by the infertile married individuals.

1.10 Organization of the Study

The study is organized into five chapters. The first chapter is the introduction containing background to the study, a statement of the problem, objectives, research questions, delimitations, and limitations, significance, and the organization of the study. Chapter Two deals with review of related literature on the topic. The chapter also includes a discussion of the conceptual and theoretical frameworks. Chapter Three deals with the methodology and its relation to the study. This includes the research design and approach, population, sample size and sampling technique procedure used, data collection procedure, research instruments used, data analysis procedure, and ethical consideration. Chapter Four presents analysis of data, presentation of results and discussions while chapter five comprises the summary of research findings, conclusions, and recommendations.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.0 Introduction

The chapter two examines literature on the subject at hand. This part is made up of two sections: theoretical and empirical. The theoretical section deals with concepts and theories connected to infertility and marital satisfaction. The second section focuses on empirical research on infertility and marital satisfaction.

2.1 Theoretical Underpinning of the Study

The academic scientific process is founded on theories. Theories are established to describe, explain, predict, and modify behavior or mental processes. The goal of theories is to gain a better understanding of the circumstances that lead to a particular idea, behavior, interaction, or phenomenon. As a result, theories or theoretical frameworks are important part of a research work (Burns, & Covington, 2006). This study is underpinned by the following theories;

- Biopsychosocial Model
- Dynamic goal theory of marital satisfaction
- Systemic Transactional Model (STM).

2.1.1 Biopsychosocial Model

In the bio-psycho-social model (BPS), George Engel advanced the comprehensive notion that, social, psychological, and biological processes play a crucial role in maintaining physical health and well-being. The model considers elements that interact to influence health of the individual. These include biological, psychological, and social elements. According to this model, infertility is not just a medical issue but a psychological issue as well. The significant biological and

psychological issues that come along with infertility are stress, sadness, anxiety, low self-esteem, difficulties with sexual connections, and marital issues. In addition, infertility is a social issue because it affects people's interactions with one another within and outside the family, which leads to stigmatization and social isolation. Finally, infertility is medical condition issue because it brings about health related challenges such depression, distortion of thinking that affect the health of the individuals. For instance, the interaction with medical treatments and services perplexes the infertile married individuals over time, leaving them disillusioned (Peng, 2012). In view of this, to address the dynamic link between the biological, psychological, and social elements of infertility, a biopsychosocial model is selected for this study. Additionally, it is selected because of its several aspects of infertility subsystems that resonate with this current study.

2.1.2 Systemic-Transactional Model (STM)

The Systemic Transactional Model focused on coping strategies in couples dealing with daily difficulties or moderate chronic stresses. It states that partners are under stress employ coping strategies as well as look for help outside their relationship. The transactional theory of stress is also consistent with the individualistic understanding of stress and coping. In this model, each person evaluates his or her own available resources to meet their personal assessments of the situation at hand. The level of stress would depend on the individual's perceptions of the circumstance, which would decide whether it is perceived as stressful or not. Once the incident is evaluated, the person responds physically and emotionally and exhibits stress-related behavior (Falconier, & Kuhn, 2019).

The Systemic Transactional Model (STM) recognizes stress and coping as a social process rooted in close relationships, with a focus on one's romantic partner. It is observed that married individuals adopt coping strategies such as problem-solving, rational thought, seeking social support, retreat into fantasy, distance, and passive acceptance to help sustain their marital relationship (Bodenmann, Falconier, Randall, Lebow, Chambers, & Breunlin, 2018). It maintained that married individuals' external stress alters their stress reactivity as well as their coping strategies, which in turn affects their relationship. Internal stress and dyadic coping are two mediators that the STM emphasized. Internal stress is the result of perceived conflicts between spouses about needs, objectives, values, and personality features. External stress exacerbates couples' personal flaws and conflict interactions, which reduces the level of intimacy and heightens dissatisfaction between partners. Dyadic coping is described as a systemic and interdependent process between one stressed partner and one who is willing to help. Married individuals are interdependent when using dyadic coping strategy to deal with external stress that could harm their ability to operate as one people (Xu, Hilpert, Nussbeck, & Bodenmann, 2018).

Infertile married individuals face many challenges during the quest for a child or children. These individuals go through a lot of stress that jeopardize their marital relationship. In view of this, they develop some coping strategies that would help them weather the storm moving forward in the journey of infertility. Therefore, the Systemic-Transactional Model (STM) of coping with stress is an appropriate choice for this study. The model spelled out clearly some of the coping strategies married individuals use when under intense stress.

2.1.3 Dynamic goal theory of marital satisfaction

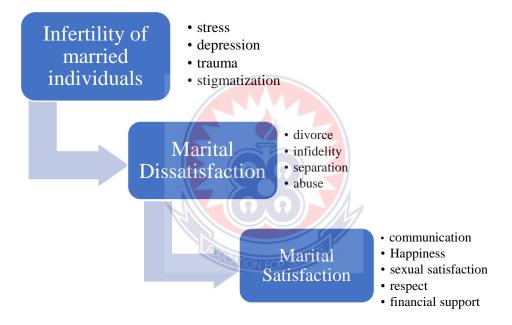
One of the key components of the dynamic goal theory of marital pleasure is the concept of marital goals or the objectives people wish to achieve in their marriage. The most important factor in determining marital satisfaction is whether marital goals are accomplished (Li, & Fung, 2011). In the Dynamic Goal Theory, marital goals are divided into three categories; these are companionship goals, personal growth goals, and instrumental goals. The demands of persons for a sense of relatedness and belonging in their marriage are the focus of companionship goals. The desire of individuals to advance or actualize themselves in marriage is the subject of personal growth objectives. Therefore, social connections are important tools for reaching personal goals in marriage. Additionally, the practicality of marriage is one of the ideas of instrumental goals (Li, & Fung, 2011). This theory is relevant to the study because it dealt with the concept of marital satisfaction and the factors that influence marital satisfaction, which this study seeks to explore further.

2.2 Conceptual framework of the study

The main focus of this study is infertility, marital satisfaction and coping strategies of infertile married individuals. The ways that infertile married individuals cope with infertility and the coping strategies they use influence their marital satisfaction. Figure 1 shows the ways in which different constructs are related to each other and also the relationships and directions of the concepts in this investigation. In this framework, marital satisfaction is considered as the independent variable while infertility is regarded as the depended variable. Infertile married individuals encounter many challenges in their marriages. These challenges lead to stress, depression, emotional trauma, and many psychological problems. These challenges lead to marital dissatisfaction where infertile married individuals experience divorce, infidelity,

separation and abuses. This dissatisfaction eventually affects communication, sexual satisfaction, financial support, respect for each other and happiness which are factors of marital satisfaction among married individuals. From the above discussion, it is clear that infertility has a link with marital dissatisfaction and marital satisfaction. The three variables have relationship with each other. The diagram below illustrates the relationship between the variables.

Figure 1: The conceptual model of the study



Research has shown that, infertility is a global health issue affecting approximately 1 in 6 adults worldwide (Kyrgiafini and Mamuris, 2023). Common causes include ovulatory dysfunction, male infertility, and fallopian tube disease. Unexplained infertility affects 30-50% of couples, with lifestyle factors like smoking and obesity also playing a role (Sun, 2023). Infertility can be a health issue rather than a specific biological problem, impacting both partners (Greil, Slauson-Blevins, McQuillan, Lowry, Burch, & Shreffler, 2018).

Approximately 8% of women in the United States face infertility, with 44% meeting criteria at some point. Infertility can disrupt planned life paths and impact marital satisfaction. Infertile women typically desire parenthood, and infertility can cause stress on marital and sexual relations (Greil, et al,2018). In Sub-Saharan African countries, children are highly valued for cultural, economic, and social reasons. Women in this region seek children for marital stability, emotional well-being, and to uphold the dignity of motherhood. It has significant social and psychological consequences for married individuals (Rasak & Oladipo, 2017; Hess, Ross & Gililland, 2018).

Marital satisfaction is a mental state influenced by perceived benefits and costs in a marriage (Rostami, 2013). Factors include love, trust, respect, fidelity, commitment, social support, equity of tasks, gender roles, and sexual interaction (Haseley, 2006). The rising divorce rate suggests the need for improved understanding of maintaining marital satisfaction, as individuals may turn to divorce to escape an unhappy marriage (Dabone,2012). It is argued that infertile married individuals experience high levels of stress and anxiety, leading to psychological illnesses. They adopt coping strategies such as having faith in God, using religious practices like prayer, turning to work as a diversion, helping others, and spending time with children (Semple & Smyth, 2019; Kyei, Manu, Dwomoh, Kotoh, Agyabeng, & Ankomah, 2022). Some also use coping strategies like social isolation, avoiding children, and diverting attention to other issues (Kyei, et al, 2022). These coping mechanisms aim to reduce the stress and challenges of dealing with infertility in married life (Sormunen, Aanesen, Fossum, Karlgren, & Westerbotn, 2018; Halkola, Koivula, & Aho, 2022).

Infertility has a significant impact on the marital satisfaction of married individuals in the Korle Klottey Municipality, leading to challenges such as stress, depression, emotional trauma, divorce, separation, and infidelity. To cope with these challenges, infertile married individuals' resort to strategies like social isolation and avoiding social events, using careers as excuses. It is revealed from the above discussion that infertility is linked to marital dissatisfaction, as shown in Figure 1, which illustrates the relationship among the variables. This research utilizes a sequential explanatory mixed method design to explore how infertility affects marital satisfaction and how married individuals cope with the phenomenon.

2.3 Concept of Infertility

It observed that infertility is one facet of life that exists in the modern society in marriage and family. It is seen as personal tragedy involving intense emotional suffering and grief. It is observed that woman receive the blame which adds to the high level of negative emotion that they experience (Rasak, & Oladipo, 2017). Infertility causes psychological, social, and economic challenges. In traditional societies like Turkey, women are expected to have children to fulfill their role. Married individuals who cannot conceive may feel guilt and shame as societal expectations dictate that having children is crucial for social status (Amiri, Sadeqi, Hoseinpoor, & Khosravi, 2016). It sparks listeners' interest and evokes feelings of sympathy for those involve in most part of the world. It has enormous challenges on societal standards and individuals' lifestyles. In the study of Amiri, Sadeqi, Hoseinpoor, & Khosravi, 2016), There are two sides of infertility on married individuals. There are negative effects of infertility on marital satisfaction for some married individuals, while others experience positive effects on marital satisfaction. Infertility exerts negative effects on physical and mental health and can lead to marital

problems (Turan, V., & Oktay,2014 cited in Amiri, Sadeqi, Hoseinpoor, & Khosravi, 2016).

It is maintained that infertile married individuals often experience feelings of inadequacy and deprivation, leading to emotions such as anger, hopelessness, depression, and denial. Some may feel guilty and consider separation or divorce due to their inability to conceive. However, supportive married individuals could work through these challenges, strengthening the bond and improving their marital relationship through sharing stress, grief, and frustrations together (Amiri, Sadeqi, Hoseinpoor, & Khosravi, 2016). Some married individuals find that infertile lifestyle increases their life satisfaction, while others find it reduced. Some attribute infertility to supernatural causes but hold onto their hope for having children in the future. Infertile individuals may struggle to relate to friends and family with children, especially in social settings like birthday parties (Rasak & Oladipo, 2017). Infertile partners experience emotions such as rage, jealousy, shame, denial, and withdrawal from social interactions (Pienimäki & Tukala, 2014). In a study by Hess, Ross, and Gililland (2018) which maintained that children are highly valued in sub-Saharan African countries for cultural, economic, and social reasons. It is argued that for marital stability, emotional and social security, a meaningful life, and the dignity of motherhood, women in sub-Saharan Africa desire children to continue the family line. Rasak and Oladipo (2017) posited that infertility has significant psychological and social consequences for those affected, especially in cultures that value fertility.

Kussiwaah, Donkor, and Naab (2017) argued that the expectations from extended families and society indicate that in African culture, marriage is only consummated when the parties conceive and give birth to a child. In Africa, having a child is considered a source of strength and pride. This implies that not having

children means an individual is not recognized in society. It is revealed observed that a man without children with his wife may decide to divorce or marry another woman (Tabong and Adongo, 2013). In the study of Whitehouse and Hollos (2014), the authors reported that infertile women are denied access to some women's rituals and are discouraged from participating in rituals performed in the community. These women are prohibited from attending women's association meetings and performing some essential tasks. In Ghana, having children or becoming parents is important for partners because it improves their status in the family and community (Kussiwaah, Donkor, & Naab, 2017). Infertile women experience psychosocial trauma, depression, frustration, high levels of anxiety, social isolation, stigma, physical violence, suicidal thoughts, threats from husbands and families, rejection, abandonment, divorce, and ridicule (Kussiwaah, Donkor, & Naab, 2017). Donkor and Sandall (2007) state that infertile women face stigmatization due their inability to give bath. In addition, women with infertility suffer social repercussions than their male partners.

In addition to the roles that society imposes on them, women and men may experience infertility differently due to their sexual characteristics. The extent to which women and men are affected by infertility may also vary according to their level of education. The higher level of education of married individuals living in cities increases their ability to share their problems in relational and social terms (Amiri, Sadeqi, Hoseinpoor, & Khosravi, 2016). According to Vizheh, Pakgohar, Rouhi, and Veisy, (2015), infertile married individuals, the female is less satisfied with marriage and sex than the males.

2.4 Perceived Causes of Infertility

Rasak and Oladipo, (2017), state that low sperm count, smoking, alcoholism, and sexually transmitted diseases (STDs), are causes of infertility in men while infertility in women is caused by ovulation problems, fallopian tube blockage, uterine injury and abortions. It is revealed that the Aowins in Ghana hold a strong belief that witchcraft causes infertility. Some Turks believed that hard manual labour makes a woman infertile. The Ndembu of Zambia believed infertility is a curse from the ancestral powers of a deceased relative (Atang, 2016). The author added that some tribes in Central Celeb Island known as the Toradja believed the cause of infertility is as a result of anger from some ancestors because of incomplete marriage rites by married individuals. In addition, the North African Somalis believed infertility is caused by some astrological influences. The Middle Eastern communities have a strong belief that infertility is a divine act that determines fate and destiny to be infertile and not the result of any ancestral or astrological forces (Atang, (2016).

Tabong, and Adongo, (2013), observed that uterine fibroid and Sexual Transmitted diseases (STDs) are examples of female conditions that can affect fertility. Participants in the study believed that causes are chlamydia, syphilis, and gonorrhea as common community cause of infertility. Both male and female participants agreed that the use of contraceptives could lead to infertility. Some infertile women firmly believe having difficulty in getting pregnant because they used contraception to avoid unintended pregnancies. The men also believe that contraceptives are a major enemy in the neighborhood since their usage encourages young people to lead promiscuous lives (Tabong, & Adongo, 2013). Additionally, males' partners blamed excessive alcohol and smoking as causes of infertility in men. Also, some participants identified low sperm count and the inability of men to

maintain an erection as typical causes of male infertility. Furthermore, some participants are of the belief that those who break their marriage vows were infertile because gods and ancestors are considered "supernatural policemen" who can reward or deny children to couples (Tabong and Adongo, 2013). In Koster-Oyekan's (1999) study, the causes of infertility among Yuroba couples were: abortion, uterine fibroids, juju, curses from ancestors (gods), witchcraft, evil spirits, and use of conventional contraceptives. Atang (2016) stated that Bunting and Bolvin identified age as the main risk factor for female infertility. He asserted that Tanzanians firmly believe that evil forces are the cause of infertility in both men and women.

In some Ghanaian communities, some believed that there are varieties of circumstances that contribute to infertility. For instance, urban residence with better educational attainment is of the believe that infertility has biological causes, whereas rural dwellers believe that infertility has supernatural causes (Polis, Otupiri, Hindin, Chiu, Keogh, Aidoo, & Bell, 2020). Sexually transmitted illnesses, blocked fallopian tubes, uterine fibroids, prior abortions, and female genital mutilation are additional biological causes (Polis, et al, 2020). Despite evidence that neither safe abortions nor reversible contraceptives had a negative impact on future fertility. It is noticed that numerous studies conducted in Ghana mentioned contraception or abortion as causes of infertility among married individuals. In addition, bewitching, promises made to gods to amass wealth in exchange for femininity, or punishment for masturbation or infidelity in marriage are some of the supernatural causes of infertility (Polis, et al, 2020).

2.5 Concept of Marital Satisfaction

Marriage is the foundation of human relationships that allows partners to meet their social, psychological, and biological needs (Kasapoğlu, & Yabanigül, 2018). Marriage is defined as living together of two people who are not biologically related but want to live as husband and wife in a holy matrimony to enjoy sexual fulfillment, love, companionship, and parenting. Marriage is a social union or legal contract that outlines the rights and responsibilities of the parties involved. A happy marriage is one in which the benefits of spouses outweigh the costs. The degree of dedication a person has towards the marriage measures his or her level of marital pleasure (Dabone, et al, 2018). It is observed that criticism, scorn, defensiveness, and stonewalling are factors that may cause marital dissatisfaction. Additionally, partners who endeavor to strengthen their marriage experience more support from one another. Spousal assistance recipients are more likely to report higher levels of marital satisfaction, fewer depressive symptoms, and more tolerable stress levels (Dabone, et al, 2018). It is revealed that married couples are averagely happier both physically and mentally than those who have experienced marital separation or divorced. A successful marriage necessitates adjustment, interaction, and sharing of the tasks and responsibilities. Marital satisfaction is an individual's mental state that reflects the perceived advantages and disadvantages of the marriage. For example, higher perceived advantages are associated with higher levels of contentment with the marriage and the partner. Therefore, marital satisfaction refers to a person's subjective assessment of how well his or her needs are met in a marriage (Kasapoğlu, & Yabanigül, 2018).

Marriage is an experience that can be evaluated by each spouse in terms of the level of marital pleasure (Peleg, 2008). Perceptions of loved ones' support for one's goals can contribute to both happiness and stability in marriage (Kaplan, & Maddux, 2002). A person's judgment of the benefits and costs of marriage is reflected in the level of marital satisfaction. Marital happiness is a key indicator of quality of life and criteria of a healthy family (Rostami, 2013). It is stated that children suffer the most when divorce occur not the parents. The rise in divorce rates is possibly the most significant changes in the family life that occurred during the twentieth century (Dabone, 2012). The birth of a child is stressful but could strengthen the bond between the husband and wife and offer a sense of joy and understanding to life, creating a sense of family togetherness (Sanders, 2010).

2.5.1 Factors Influencing Marital Satisfaction

Haris and Kumar (2018) state that if couples' communication is at a higher level, they feel closer to each other, share thoughts and feelings, and feel more intimate. This prevents any potential misunderstandings which is the root of many couple conflicts and divorce. Also, communication is essential to a happy marriage, and effective communication skills are the main indicators of marital satisfaction. There is proof that sexual satisfaction has a link with relationship satisfaction (Renanita, & Lukito Setiawan, 2018). The significance of married individuals' psychological health, conflict-resolution techniques, and family acceptance as major factors in marital satisfaction (Beyazit, & Sahin, 2018).

In the study of Haris and Kannur, (2018), it is observed that effective partner relationships promote high interpersonal communication abilities. Du Plooy and De Beer (2018) maintained that many married individuals place a high value on having effective marital communication skills, which has a positive connection with marital

satisfaction. Additional elements that contribute to high levels of marital satisfaction include the quality of time spent together, ideal problem-solving techniques, and conflict management abilities. It is stated that religion has a positive impact on any kind of marriage (Bahnaru, Runcan, & Runcan, 2019). Rostami, and Gol, (2014) maintained that religiosity and church attendance boost marital satisfaction. Also, married individuals who share the same religious practice and the same religious faith are happier in their relationships than those who did not. Again, religious activities such as praying together and social support improve marriage satisfaction among couples. In the study of Rouhbakhsh, Kermansaravi, Shakiba, and Navidian, (2019), it is observed that short-term couples' educational programs that focused on husbands' active involvement, cooperation in coping with marital conflict, education about intimacy and successful sexual relationships for couples have a positive and significant impact on women's marital satisfaction.

It is observed that lack of respect increases the chance of feeling resentful, frustrated, and unsatisfied with the partner and the marriage (Khezri, et al, 2020). In the study of Johnson and Anderson (2012), spending time together increases couples' marital satisfaction by boosting their sense of self-worth. Udofia, Bonsi, and Agbakpe (2021) state that there is a substantial positive relationship between intimacy and marital satisfaction. Marital intimacy develops when couples in a relationship are able to communicate their thoughts, ideas, feelings, and demands together as a unity. Agyemang, Agyemang, and Sekyi (2020) state that spousal expectation in terms of sharing values, and ideas about lifestyle, providing companionship, respect, satisfying sexual relationship, earning an adequate income, and becoming a good parent led to marital stability.

2.5.2 Gender and marital satisfaction

Historical data on infertility has traditionally focused on women due to their close association with reproductive systems. It is revealed that men are less likely to exhibit psychiatric symptoms related to infertility (Rhodes, 2019). Both married individuals experience the repercussions of infertility, with men and women handling the experience, diagnosis, label, and treatment differently. Women are more likely to experience a physical impact than men (Tüzer, Tuncel, Göka, Bulut, Yüksel, Atan, & Göka, 2010).

A growing quantity of research indicates that infertility has a greater detrimental effect on women's psychological health than men (Brand, 1989; Daniluk, 1996; Abbey et al., 1991). It is revealed that men who undergo stress and loss are comparable to women who are classified as infertile (Leiblum (1993). According to Greil, Leitko, and Porter (1988), men are more likely to view infertility as a troubling but non-tragic event, while women are more likely to view it as a catastrophic role failure. In a study of males visiting a specialized male infertility clinic. Gibson, (2000) discovered that the men reported feeling very anxious, thinking less of themselves as men, and taking responsibility for their infertility (Maillet, 2002). Compared to women, men assessments of the impact of infertility on their marriage were solely based on the degree to which they believed it had impacted their own sense of self-worth. They tended to believe that infertility had a detrimental effect on their marriage and they felt it had a negative impact on their own self-esteem (Pasch, Dunkel-Schetter, & Christensen, 2002). The effect of infertility on marital satisfaction is shaped by gender among heterosexual married individuals. It has been stated that men have greater relationship satisfaction than women, and many research work have supported this assertion (Greil, et al, 2018).

2.5.3 Age and marital satisfaction

It is observed that age groups especially those in the 26–30-year-old age range are less likely to experience psychological distress. There is evidence that younger age infertile married individuals experience psychological distress as compared to relatively older age married individuals. Another element that was said to lessen suffering was the spouse's lower educational attainment (Qadir, Khalid, & Medhin, 2015). In the study of Pasha, Basirat, Esmailzadeh, Faramarzi, and Adibrad, (2017), it is found that there is no significant relationship between marital satisfaction in infertile women and various factors such as age, education level, economic status, and previous use of assisted reproductive technology. It is argued the marital satisfaction scores of men were significantly lower than those of women. It has been shown that marital satisfaction increases with the age of the couples. It was observed that the increase in marital satisfaction increased with the age of the women and men participating in the study. It can be assumed that with age, the individual's ability to cope with problems increases and they are less affected by social pressure from the external environment (Kapısız, S., Gök, Yilmaz, Özcan, & Duyan, 2019). There is a universal agreement that there is an inverse relationship between age at first marriage and the possibility of divorce. This indicates that age at the time of marriage is the best predictor of marital stability in the absence other factors that seemed to be relevant (Khezri, Hassan, & Nordin, 2020).

2.6 Coping Strategies of Infertile married individuals

It noted that coping strategies are deliberate attempts to lessen stressful circumstances in marriage (Kyei, Manu, Dwomoh, Kotoh, Agyabeng, & Ankomah, 2022). Infertility causes worries for infertile married individuals across the globe. In view of this, these affected individuals use coping strategies to improve their marital

life. Infertile partners that do not employ strategies to cope, however, risk developing bio-psychological illnesses and possibly having their physiological processes negatively impacted (Keshavarz, Mosalanejad, Ghavi, Abdollahifard, & Khodabakhshi Koolaee, 2018). Infertile married individuals have psychological illnesses such as high levels of stress and anxiety symptoms (Semple & Smyth, 2019). Married individuals struggling with infertility frequently feel stressed out because of the psychological and social difficulties they encounter as they deal with the situation.

It is observed that, infertile married individuals get through their infertility problems by having firm faith and confidence in God. There is evidence that infertility-affected couples used religious practices, such as prayer to manage the difficulties associated with infertility treatment. Another coping strategy couples use is escape avoidance, which entails trying to get away from or avoid a stressful situation while thinking about a potential solution (Kyei, et al, 2022).

In Turkey, women use active avoidance, active confrontation, and passive avoidance coping mechanisms more frequently than men do (Yilmaz, & Oskay, 2017). It is observed that women with secondary infertility (10%), about 25% of women with primary infertility adopted effective coping strategies such as turning to work as a diversion (Sormunen, Aanesen, Fossum, Karlgren, & Westerbotn,2018). Studies suggest that helping others and spending time with children help infertile married individuals to cope with their situation. Also, social isolation, avoiding children and uncomfortable events including leaving situations when children are discussed, and diverting attention to other issues are some of the coping strategies used by infertile married individuals (Halkola, Koivula, & Aho, 2022). The lives of infertile women in Ghana seem to be significantly influenced by their religious beliefs (Oti-Boadi, & Oppong, 2017). Zurlo, Cattaneo, and Vallone (2020) observed that

infertile married individuals seek social support, and using coping strategies to solve infertility problems. Lastly, the use of dysfunctional coping strategies, such as self-distraction, denial, substance use, behavioral disengagement, and self-blame by infertile women are noted in the study of Iordăchescu, Paica, Boca, Gică, Panaitescu, Peltecu, & Gică, (2021).

2.7 Effects of Infertility on Marital Satisfaction

According to Rasak, & Oladipo, (2017) infertility has a variety of negative implications on society and couples' wellbeing. Couples experiencing infertility face a higher level of negative emotional and social rejection in their lives. Most couples ignore one other in order to avoid the embarrassment when strangers question them about their children. Marriages without children frequently result in divorce among married couples. The American Infertility Association (2003) claimed that infertility has a substantial impact on a couple's marriage and it is the source of stress than any other aspect of daily life. It is observed that, some couples in order to safeguard themselves, have to bear the suffering of social exclusion. Married individuals without children frequently struggle to express their sorrow and grief in private because they felt no one could comprehend their sentiments of despair and hopelessness. This phenomenon is linked to emotional reactions in both men and women, including despair, anxiety, guilt, social isolation, and low self-esteem. Social rejection, verbal and physical violence, as well as divorce, are among the social effects of infertility (Anokye, Acheampong, Mprah, Ope, & Barivure, 2017). Marital satisfaction is worsened by the physical, mental, and financial pressure that infertility brings to the married individuals. Therefore, differing perspectives on infertility among partners could cause conflict and resentment in marriages. The infertile couple

experience feelings of denial, anxiety, and fear of losing control, loneliness, and guilt (Obiyo, 2016).

In Ghanaian infertile married individuals suffer from significant social, medical, and financial consequences, including isolation from society, mental anguish, diminished sex satisfaction, marital instability, increased polygamy, strained relationships, and a lack of access to status and income. Again, infertile women in some regions of Ghana are seen as witches, abandoned by family members, forbidden from being around children, or denied hereditary chieftaincy roles. In addition, infertile women adopt family members' children to cover up their infertility challenges. It is maintained that infertile men also experience unfavorable outcomes, such as social marginalization, exclusion from community and leadership roles (Polis, et al, 2020).

It is revealed that infertile couples face social stigma which prohibit them from holding positions of authority in the community in some parts of Ghana. It is believed that these couples are ripped off the possibility of enjoying life. Most infertile married individuals participate in multiple partner sexual relationship in order to demonstrate their fertility (Anokye, et al, 2017). In the study of Amiri, Sadeqi, Hoseinpoor, and Khosravi, (2016) it is discovered that marital satisfaction of infertile participants is very low. Nyarko and Amu (2015) in their study posited that the marital relationships of the infertile married individuals who visited the public health institution are negatively impacted. The authors maintained that infertility has a negative impact on the participants' sexual lives, marital communication, and psychological well-being. They added that majority who are unable to produce children of their own are unhappy in their marriages. These two issues exacerbate existing suffering and overall dissatisfaction (Khezri, et al, 2020).

2.8 Summary of Literature Review

From the literature review, it is clear that infertility is a global challenge. It is worth noting that all the three variables namely infertility, marital satisfaction, and coping strategies were reviewed. The literature review showed that couples facing infertility go through social and psychological challenges such stress, depression, shame, guilt, trauma, frustrations, and many more, which have adverse impact on their wellbeing and their marital satisfaction. The above-mentioned social and psychological challenges lead to divorce, separation, infidelity and suicide among married individuals. From the literature review, as couples encounter these challenges, their marital satisfaction is diminished. It is evident that married individuals use coping strategies such isolation, avoidance, religion and many more to cope with the pain. These is a clear indication that infertility, marital satisfaction and coping strategies have a link that led to marital dissatisfaction.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter is an overview of the methodology used in this study. The discussion is structured around the philosophical worldview of the research design, the study area, population, sample size, sampling procedure, instrumentation, validity and reliability of instruments, the trustworthiness of qualitative data, data collection and analysis procedures as well as ethical considerations.

3.1 Philosophical Underpinnings

A paradigm is a set of assumptions about how specific problems occur and a set of agreements about how they might be investigated (Kivunja & Kuyini, 2017, Hughes, 2010 and Kamal, 2019). In other words, the paradigm chosen guides the researchers' investigation, including their methods for gathering data and analyzing it. The paradigm has significant implications for every choice made during the study process.

Epistemology is concerned with what constitutes genuine knowledge and how it is acquired. It has to do with human understanding and the sources of that information (Oppong, 2014). It is the method through which a researcher establishes or define reality. According to Creswell (2003), the epistemological perspective is determined by asking: What is the relationship between the researcher and the subject of the research? Positivism holds that there is only one objective reality that was unaffected by how people perceive it. But the epistemological premise is that, systematic scientific procedures of investigation are to be used to determine what is reality (Creswell 2003 and Kamal, 2019). Epistemology is concerned with the basis(s)

upon which the researcher considers something as true. The researcher's epistemological perspective is crucial to the choice of technique in terms of its purpose and goals. It is beneficial to the study because it helps to identify and articulate epistemological stance which inform the methodology and the decisions both of which are necessary to support how the research produces new knowledge and the credibility of its conclusions (Jackson, 2013).

Ontology is the study of the nature of things in the world and the truth made about them. (Gray 2013; Bryman & Bell, 2011, Ansari, Panhwar, & Mahesar, 2016). The ontological perspective is related to questions of how to collect study data and linking it to the ground of truth. It is advantageous for the researcher to consider, define, and confirm the methodology's compatibility with the ontological framework. This supports the methodology selection process and improves the research's credibility. In an effort to support the choices and that of the succeeding methods of data collection and analysis, the researcher should justify his or her decisions (Jackson, 2013).

The philosophy of pragmatism is open to all competing systems of reality and philosophy. In mixed methods research, this holds true because investigators frequently make assumptions that are both quantitative and qualitative. Individual researchers are allowed to make their own decisions. Researchers are free to select the research methodologies, approaches, and procedures that best serve the study's requirements and objectives. Similarly, researchers using mixed methods rely on a variety of methods rather than just one when gathering and analyzing data (Shannon-Baker, 2016). Arnon and Reichel openly indicate that pragmatism has an impact on the conceptualizations of the nature of the phenomena under investigation and the research questions before they examined the best methodological approaches to the

problem at hand. Finally, pragmatism provides a number of techniques to overcome contradictions found in the mixed methods approach (Shannon-Baker, 2016).

The stance adopted by the researcher for this study is a pragmatic theoretical framework since it acknowledges the range of elements that affect married individuals' marital satisfaction and coping strategies they adopt. The purpose of the study is to examine how infertility affects married individuals' marital satisfaction and how they cope with the situation. To do this, pragmatism offers the researcher a tool to look into the experiences of infertile married individuals. The best strategy to investigate this within a pragmatic framework is a mixed-method sequential explanatory design.

3.2 Research Approach

This research applied the mixed-method approach. A mixed methods approach is the collection or analysis of quantitative and/or qualitative data in a single study in which data are collected simultaneously or sequentially, is prioritized and involves integrating data into one or more steps in the research process (Peng, 2012). In order to address research concerns, the mixed methods study design integrates the advantages of both quantitative and qualitative methodologies. This design consists of both quantitative and qualitative stages, each of which is carried out separately. Then, for a more comprehensive knowledge of the research questions and phenomena, the quantitative and qualitative data are combined. The mixed-methods study incorporates data from both the quantitative and qualitative phases (Othman, Steen, & Fleet, 2020). Mixed methods research involves the processes and procedures for collecting, analyzing, and inferring both quantitative and qualitative data in a single study or in sequential studies, depending on the level of Priority and order of information (Du

Plessis, & Majam, 2010). Mixed methods research brings together ideas from quantitative and quantitative research as it has become the third major research method (Johnson, Onwuegbuzie, & Turner, 2007). The purpose of the mixed method is that both quantitative and qualitative methods complement each other, their combination helps to better understand and give a more clarity to the topic of the research study (Denzin, 1989). A mixed-methods approach has a number of advantages.

3.2.1 Advantages

Firstly, it provides a logical foundation, and methodological adaptability. This means mixed methodologies enables researchers to adequately address the breadth and depth of the study topics and aids in generalizing the implications of the research findings to the entire population (Maxwell, 2016; Fetters, 2016; Enosh, Tzafrir, & Stolovy, 2014 and Dawadi, et al, 2021). Secondly, mixed method offers insights into the research phenomenon that cannot be understood by using only quantitative or qualitative approaches. This shows that multiple data sources in a mixed-methods methodology help to comprehend complicated issues (Shorten & Smith, 2017; Poth & Munce, 2020; and Dawadi, et al, 2021). Thirdly, the depth of the research inquiry is enhanced by qualitative data because narratives can give the researcher a more indepth understanding of the phenomenon. Fourthly, a mixed method approach makes it possible to draw findings that are more firmly grounded by combining two methodologies.

The study made use of two methods to collect and analyze data. The study is made up of two phases. These are the quantitative phase and the qualitative phase respectively. The quantitative data was collected first through the use of two instruments. The marital satisfaction inventory and the perception about infertility

inventory while the qualitative data was collected through the use of interview guide questions. The quantitative data was analyzed first then followed by the qualitative data analyses. These data analysis and discussions were done by triangulation of both quantitative and qualitative data.

3.2.2 Disadvantages

Some of the disadvantages of Mixed Method Research are as follows; First, gathering and analyzing data can take a very long time. As a result, both the cost and the time involved could be higher. Researchers frequently struggle to plan their studies within the time and financial constraints they have set. Data collecting requires a lot of work and has a tight deadline for recruiting. Second, it can be a challenge for many researchers to integrate qualitative and quantitative data. Third, diverse epistemological and philosophical frameworks are used to guide quantitative and qualitative methodologies. Therefore, the issues with integrating them are whether each paradigm assumption is given the same weight or attention in the research and whether the results of the two approaches are seen as being incomparable (Dawadi, et al, 2021).

To address the shortcomings, the researcher took the following measure: Since qualitative data takes a long time, I prepared the interview guide questions in December 2022. I also started data gathering for the study in January 2023. Again, I trained two volunteers who helped in gathering data for the study.

3.3 Research Design: Sequential Explanatory Mixed Method

The researcher employed the sequential explanatory mixed method in conducting the study. The sequential explanatory design has two phases. These are quantitative phase and a qualitative phase that tries to explain or improve the

quantitative results. The researcher notes certain quantitative discoveries in the follow-up explanatory model, such as unexpected outcomes, outliers, or group differences that require additional qualitative investigation (Doyle, Brady, & Byrne, 2009). The steps are carried out quickly because they are divided into distinct stages. This design element makes it simple to describe and report. In actuality, the outcomes of this design are presented in two separate periods, with a concluding discussion that integrates the findings (Creswell, et al, 2003). Additionally, because this design makes it easy for quantitative researchers to acquire and analyze qualitative data, it can effectively introduce qualitative research methodologies to researchers who are not familiar with them (Creswell, et al., 2003). The major problem with this design is how long it takes data collection to complete the two separate processes. However, a sequential explanatory design that prioritizes both qualitative and quantitative approaches equally may be more appropriate than utilizing a single study (Creswell, et al, 2003). The data analysis results from the qualitative in the second phase was used to explain the quantitative data in the first phase. The data analysis of the two phases were merged to give further clarifications, explanation and conclusions of the study.

3.4 The Setting of the Study

The Korle Lottey Municipal Assembly (KoKMA) is one of the 260 Metropolitan Municipal District Assemblies in Ghana's Greater Accra Region and one of the twenty-nine (29) Metropolitan Municipal District Assemblies. It lies between latitudes 5 32"50' N and 0 11"15' W and latitudes 5 38"0' N and 0 7"50' W. On February 19, 2019, the Municipal Assembly was established and given its first official session. The Local Government Act of 1993, Act 462, which later underwent revision by Legislative Instrument (LI) 2365 to become the Local Government Act of

2016 (or Act 936), established the Assembly. The population in Korle Klottey Municipality is 68,633(2021 population census) with Gas dominating, followed by Akans with other ethnic groups. The area is noted for traditional activities such as the celebration of "Homowo" the traditional festival of the Ga people. The economic activities in the municipality are trading and fishing. For instance, at the Greater Accra Region's 2021 Annual Performance Review, Korle Klottey Municipal Health Directorate is recognized as the second-best performing district in the region. The Municipality is known for its religious activities. Municipality is made of three religious faith groups. These are Christians religious group, the Muslims religious group and the African traditional religious groups. In terms of education, the 2021 Population and Housing Census estimated that 49,392 of the residence were educated while 5,582 were not educated. There was a total land size of 11.89 km² Area and 5,770/km² in 2021.

The study site is chosen because there have been some observations and concerns about infertility among couples in Korle Klottey Municipality. This phenomenon has led to high rate of separation, high rate of divorce, infidelity, marital stress, and suicide ideation among couples. The above-mentioned factors have created marital dissatisfaction among couples in Korle Klottey Municipality. Therefore, the researcher took it upon himself to conduct a study on infertility and its impact on marital satisfaction and coping strategies among couples in the Municipality. The study made use of ten (10) churches using simple random sampling. According to Bhardwal (2019), simple random sampling is used to select respondents of population that is highly homogenous. The justification of the selection of ten (10) churches were due to the respondents' accessibility, the proximity to the churches and the homogenous nature of the respondents in the Korle Klottey Municipality.



Figure 2: Map of Korle Klottey Municipal District, Greater Accra

3.5 Population of the Study

According to Omari (2011), population is the totality of any group of units that had one or more characteristics in common that were of interest to the researcher. It involves a larger group of people, institutions, or things that had one or more characteristics in common on which a study focuses. It consists of all cases of individuals or elements that fit a certain specification (Kothari, 2004). Asiamah, Mensah, and Oteng-Abayie (2017) assert that researchers gathered data or information from participants in an effort to advance scholarly debate and knowledge. These participants are a part of the study population, a group of individuals who have one or more interesting characteristics in common.

The estimated population of married individuals in the Korle Klottey Municipality is about seven thousand two hundred and ninety-eight (7298). The target population is about nine hundred and eight (908) married individuals. The population is drawn from ten (10) churches in the Korle Klottey Municipality. The churches are

as follows; Korle Bu Community Chapel (KBCC), Healing Ark of God Church (HAGC), Ridge Church (RC), Christ the King Methodist Church (CKMC), Church of Christ (COC), Church of the Living God (CLG), Bethel SDA Church, Seraphim E.P Church, Presbyterian Church of Ghana and Shalom Congregation. Therefore, the accessible and the selected population for the study is two hundred and seventy-one (271) infertile married individuals from Korele Klottey Municipality.

3.6 Sample Size for the Quantitative Phase

A sample is a smaller group of people selected from a larger population for study purposes (Creswell, 2007). It is essential for researchers to use samples as it is not feasible to test every individual in a study. The sample size should be sufficient to support statistical analysis and must accurately represent the entire population Mason (2002). In a study by Agyemang, Agyemang, & Sekyi (2020), A larger sample size increases the likelihood of the data accurately reflecting the general population. A total of 271 respondents were selected for the study. These consisted of 133 infertile married individuals (men) and 138 infertile married individuals (women) from ten churches in the Korle Klottey Municipality.

3.7 Sampling Techniques

The study made use of two sampling techniques. These are; the simple random sample and the proportional sample. Simple random sampling is the selection of population that is highly homogenous and where respondents are randomly selected to participate in the study (Bhardwal, 2019). The ten (10) churches were selected using randomization. The researcher conducted randomization by giving numbers to the churches from one to ten (10) on pieces of papers. The researcher asked ten (10) volunteers to pick the pieces of papers at random. Any church that selected was

included in the research study. Agyemang, Agyemang, & Sekyi, (2020) state that simple random selection was chosen in research because it ensures that each person has an equal and independent chance of being selected.

3.8 Proportional Sampling

In the study of Alvi, (2016), proportional sampling is the percentage of each subgroup in the population. For instance, in a population of 200, a proportional sampling of 50%, 40%, 30% and 20% of the respondents could be determined. Etikan and Bala (2017) maintained that proportional sampling represents the characteristics of the primary population by sampling total proportions. In view of this, the researcher used proportional sampling technique to select the respondents from the churches. The researcher entered the ten (10) churches with the list of married individuals obtained from the Annual Marital Celebration Week Committee Leaders. Since the numbers were large and varied the researcher resorted to using proportional sampling technique to select the respondents for the study. In this wise, thirty percent (30%) of respondents were selected from the churches.

According to Cheung, (2021), theoretically, probability proportional sampling is employed when the sampling units differ in size or in other significant ways that the researcher wish to consider in the sample selection. The inclusion probability for each sample unit in probability proportional sampling is unique and relates to an auxiliary variable, which is often a size measure for each sampling unit. Depending on the goal of the study, the size measure may be a population size measure, a geographic measure of the sampling units, or a composite measure for other relevant information about the sampling units. Since the numbers are large and varied the researcher resorted to using proportional sampling technique to select the respondents for the

study. In this wise, thirty percent (30%) of respondents were selected from the churches (Alvi, (2016). This is shown in Table 2 below:

Table 1: Distribution of sample

No	Churches	Population	No Selected
1	Korle Bu Community	86	26
	Chapel (KBCC)		
2	Healing Ark of God	92	28
	Church (HAGC)		
3	Christ the King Methodist	98	27
	Church (CKMC)		
4	Church of Christ (COC)	90	27
5	Church of Living God	95	29
	(CLG)		
6	SDA Church	56	17
7	Seraphim E.P Church	97	29
8	Presbyterian Church of	112	34
	Ghana	1/4	
9	Ridge Church (RC)	94	28
10	Shalom Congregation	88	26
	Church		
	Total:	908	271

Fieldwork, 2024

3.9 Sample and Sampling Procedure for the Qualitative Phase

Convenience sampling is a type of non-probabilistic or non-random sampling in which members of the target population meet certain practical criteria, such as ease of access, geographical distance and availability (Etikan, Musa, & Alkassim, 2016). The participants for the qualitative phase were fifteen (15) infertile married individuals. There were eight (8) infertile married men and seven (7) infertile married women. The researcher used convenience sampling techniques to select participants.

To do this, the researcher visited the ten (10) churches one-by-one to select the participants. Since the researcher used the participants during the quantitative phase of the study, it was easier to select the participants who were willing and available for the study. The criteria for selection were that all participants had to be infertile married individuals. Also, participants should be residence of Korle Klottey Municipality for the researcher to conduct face-to-face interview when necessary.

3.10 Research Instruments

3.10.1 Marital Satisfaction Inventory (MSI)

The research data was collected using two questionnaires and one interview guide. Essuman's Marital Satisfaction Inventory (MS) and causes of infertility questionnaire adapted from Abiona, 2015. The two questionnaires were used to collect data for the quantitative phase of the study, while the interview guide was used to collect data for the qualitative phase of the study. The first questionnaire is a standardized instrument, which is Essuman Marital Satisfactory Inventory developed by Esuman (2010). The questionnaire is made up of thirty-five (35) items divided into two parts. The first part consists of five (5) items that gather demographic information about the respondents. This information includes age, gender, religion, educational level, and address. The second part consists of 30 items adopted from the The main purpose of the Marital Satisfactory Marital Satisfaction Inventory. Inventory is to help married couples to find out whether they are satisfied or not in their marriages. The 35-items inventory for men and women are put into seven scales. The small number on the scale is 3 items and the higher number on the scale is 6 items. The 4-point Likert Scale on the Marital Satisfactory Inventory ranges from Very True (4), True (3), Not True (2), and Not At All True (1). The cut-off points in the instrument are as follows: 30-45(Not At All True), 46-75(Not Satisfied), 76105(Satisfied), and 106-120(Very Satisfied) (Bentil, 2021). The seven scales of the Marital Satisfaction Inventory are as follows:

Scale item 1: Relationship (six items, 2, 5, 10, 20, 21, and 25)

Scale item 2: Affection, Love, and Appreciation (five items, 3, 4, 16, 23, and 27)

Scale item 3: Character (six items, 6, 12, 18, 19, 22, and 28)

Scale item 4: Temperament (three items, 13, 14, and 29)

Scale item 5: In-law Issues (three items, 11, 17, and 24)

Scale item 6: Marital Roles (three items, 9, 15, and 26)

Scale item 7: General Evaluation (four items, 1, 7, 8, and 30). The inventory is made of positive and negative items. There are fifteen (15) positive items, fifteen (15) negative items and five (5) demographic items. This is added up to 35 items on the Marital Satisfaction Inventory. The researcher selected this MSI because it has been used among married couples in some studies in Ghana. In this study, it is useful because it helped to determine a couple's level of marital satisfaction. The instrument was given to the respondents in the first instance and after two weeks they were made to respond to the instrument. Correlational analysis was performed and results which yielded 0.73 for the first instance and 0.74 for the second instance. The result show high test and retest reliability coefficient. Further, Cronbach Alpha coefficient was used to established interval consistency of the instrument. These measures confirmed that the instruments used were reliable. The psychometrics properties of the instrument are as follows:

Table 2: Reliability of Marital Satisfaction Inventory

No.	Scale	Cronbach Alpha
1	Relationship	0.74
2	Affection, Love and Appreciation	0.77
3	Character	0.76
4	Temperament	0.75
		Overall:
		0.89

Fieldwork, 2024

3.10.2 Perception about causes of Infertility Inventory (PACI)

The researcher used an adapted version of the Perception about Causes of Infertility Inventory (PACI) by Abiona, (2015) to gather quantitative data. It is worth noting that the original questionnaire has 8 demographic characters and 48 items. However, the researcher made an adaption and dropped some of the items. The items dropped from the original questionnaire are items: 11, 12, 14 – 23, 26, 28, 29, 31, 37 and 56 (see Appendix B). The items in the original questionnaire adapted by the researcher are: 9, 10, 13, 24, 25, 27, 30, 32, 33, 34, 35, and 36 (see Appendix B) and added five (5) new items to the questionnaire. The adapted questionnaire is made up of twenty-five (25) items with two sections. Section one consisted of six (6) items that gathered demographic information about the respondents. This included information such as age, gender, religion, educational level, occupation, marital status, and duration of marriage. Section two consisted of nineteen (19) items. The rationale for adapting the inventory is that, most of the items are not in line with the research questions that this inventory sought to answer. Also, the rationale for dropping some of the items from the inventory are these items were not relevant to the study and the research questions as most of them delt with only males. The main purpose of the

Perception about Causes of Infertility Inventory (PACI) is to find out from respondents the perceived causes of their infertility. The twenty-five (25) items inventory for both men and women were put into six scales on a 3-point Likert Scale ranged from Agree (4), Disagree (3), and Not Sure (1). The six scales of the Perception about Causes of Infertility Inventory (PACI) are as follows: Scale item 1: Medical Causes of infertility (four items, 2, 5, 10, and 17), Scale item 2: Supernatural Causes of infertility (three items, 3, 4, and 16), Scale item 3: Cultural Causes of infertility (one item, 6), Scale item 4: Biological Causes of infertility (two items, 13 and 14), Scale item 5: Social Causes of infertility (two items, 9 and 11), Scale item 6: Psychological Causes of infertility (Five items, 1, 7, 8, 12, and 15). This instrument was used to gather data to answer research question one.

3.10.3 The semi-structured interview guide

To conduct the qualitative phase, semi-structured interviews was used. Semi-structured interview guide provides more flexibility, range, and hence the ability to elicit more information from the subject by allowing the participants to elaborate. In addition, Semi-structured interviews provide participants more freedom to respond to questions on their own terms than the standardized interview does while yet offering a better framework for comparison than the focused interview (May 1997&Conroy, M. 2010). Items on the interview guide were vetted and approved by the supervisor in an attempt to check for the trustworthiness of the instrument. The interview guide was made up of two sections. The first section consisted of six (6) demographic characters: Age, Gender, Educational Level, Length of Marriage, Religion, and Occupation. The second part consists of nine (9) questions. These questions were divided into two sections. The first section deals with the experiences of infertility and the second section talks about coping strategies infertile married individuals used to

cope with the situation. Some of the sample questions used to gather data from the participants were as follows;

- i. How does your infertility situation affect your communication in the marriage?
- ii. How does your infertility situation affect your sexual life?
- iii. How does your infertility situation affect your financial support?
- iv. How does your infertility situation affect your marital respect?

3.11 Pilot Testing

Piloting of the research instrument was conducted in the Korle Klottey Municipality on respondents from other churches which are not part of the ten (10) selected churches but have the same characteristics in terms of culture and language. A sample of twenty (20) infertile married individuals was used. The researcher used snowball techniques to select the twenty (20) respondents. The data was collected through the use of questionnaires and interview guide. The responses from the 20 couples were examined using Cronbach's Alpha to determine an instrument's reliability index. It is argued that when measures had several scored items, Cronbach's alpha should be used. This resulted in a coefficient of 0.89 for the 30 items (N20), demonstrating a high degree of internal consistency of the items.

3.12 Reliability and Validity

3.12.1 Validity

Validity is the degree to which a study accurately assesses or depicts the specific idea or construct that the researcher is attempting to gauge (Thorndike, 1997; Ivankova, 2002). Face validity is the degree to which the test appears to measure what it is meant to measure. A test in which most people agree that the test item appears to measure what the test is intended to measure will have strong apparent validity

(Johnson, 2021). Content validity helps describe the set of test construction and validation techniques associated with measuring the underlying domain. This describes an important process for defending the interpretation of scores, presumably in relation to the content domain measured (Sireci, 1998). The following measures were taken to ensure the validity of the instrument: Both face and content validity were ensured. The instruments were given to colleagues in the department to observe and give comments as regarding the wording and items in the questionnaire. The comments were considered in modifying the instrument. In this way face validity was ensured. In terms of content validity, the Marital Satisfaction Inventory (MSI) and the Perception about Causes of Infertility Inventory (PACI) items in the questionnaires were scrutinized by the supervisor and experts of the field of Counselling Psychology to ensure validity. In this wise, content validity was assured.

3.12.2 Reliability

Thorndike (1997) maintains that reliability is the degree to which a measurement process is accurate and precise. In quantitative research, the validity and reliability of the instrument are essential for minimizing errors that could be caused by problems with measurement in the study (Ivankova, 2002). The researcher used pilot testing, test-retest techniques to establish the instrument's reliability. Test-retest reliability is the capacity to provide the same results when the same study respondents are given the same survey repeatedly and the results is consistent or reliable (Guion, 2004).

The instruments were given to the respondents in the first instance and after two weeks they were made to respond to the instruments. Correlational analysis was performed on the two results which yielded 0.73 for the first instance and 0.74 for the second instance. The two results show high test and retest reliability coefficient.

Further, Cronbach Alpha coefficient was used to established interval consistency of the instruments. These measures confirmed that the instruments used were reliable.

Table 2: Reliability of Marital Satisfaction Inventory

No.	Scale	Cronbach Alpha
1	Relationship	0.74
2	Affection, Love and Appreciation	0.77
3	Character	0.76
4	Temperament	0.75
		Overall:
		0.89

Fieldwork, 2024

Table 3: Reliability of Perception about causes Infertility Inventory

No	Scale	Cronbach Alpha
1	Medical Causes	0.73
2	Supernatural Causes	0.72
3	Cultural causes	0.75
4	Biological Causes	0.74
6	Social Causes	0.76
7	Psychological Causes	0.77
		Overall:
		0. 87

Fieldwork, 2024

3.13 Data Collection

To verify the researcher's identification, a letter of introduction was taken from the Department of Counselling Psychology, University of Education, Winneba. The subject of the study and the required number of respondents for the study were further discussed with the supervisor. The researcher collected data in the quantitative phase using Esuman's Marital Satisfaction Inventory and Perception about Causes of

Infertility Inventory adapted from Abiona, (2015). The marital satisfaction inventory consists of thirty-five (35) items each for both men and women. The Perception about Causes of Infertility inventory has twenty-four (24) items. The two sets of questionnaires were distributed with the help of four (4) volunteers from Valley View University. These volunteers were trained on time management, distribution of research questionnaires, identification of the right respondents and collating of results and data entry. The questionnaires were given to the respondents in the churches, communities, and workplaces. One hundred and seventy-one respondents received and returned the two sets of questionnaires. A hundred percent return rate was achieved because the inventories were distributed and collected on the same day by the volunteers. The data collection exercise lasted for two weeks. For the qualitative phase, the semi-structured interview guide was used to collect data from the participants. Some of the sample questions used to gather data from the participants were as follows;

- v. How does your infertility situation affect your communication in the marriage?
- vi. How does your infertility situation affect your sexual life?
- vii. How does your infertility situation affect your financial support?
- viii. How does your infertility situation affect your marital respect?

Once the participant and the researcher arrived at the agreed-upon location, the researcher conducted the interview according to a predetermined protocol. This protocol required spending some time getting to know the person and trying to put them at ease. In order to build rapport, it was necessary to make and keep eye contact with the other person, smile and greet them truly, match non-verbal cues, and start a conversation. The researcher explained both the demographic questionnaires and the

interview guide to the participants. The steps taken to ensure anonymity and the handling of the data gathered by the researcher were duly followed. The written consent form was explained and offered to the participant once they stated they have no further questions and understood their involvement in the procedure.

The study's goal, potential dangers, and projected duration are reiterated. The participates are informed that participation is optional and that withdrawal from the study would not result in any negative consequences. Two consents form were signed by each participant. The researcher retained one copy, while the participant received the other. The participants were given one more chance to ask questions after signing the consent form. The researcher urged participants to provide open and honest responses. The interviewee chose fictitious names before the start of the interview because they want to keep their identity confidential. To ensure that both the researcher's and the participant's voices are captured the researcher used a recorder having sought permission from the participants. The interview took about 40 minutes to complete for each participant.

3.14 Data Analysis

The quantitative data was analyzed with the help of the version 23. 0.0 of the Statistical Product for Service Solution (SPSS) software. During data analysis, frequencies and percentages were used for biographical data. The mean and standard deviation were used to analyze the research questions one and two while the hypotheses were tested using the simple linear regression and independent sample t-test. The independent sample t-test is used when the researcher wants to compare the mean scores of two groups. The mean scores were computed for each of the items on the questionnaire. In addition, mean od means for the overall scale was computed. So, the mean scores for the overall scale started from 30 to 120. In view of this, the

following cutoff points were determined for the overall scale: Not At All Satisfied 30 – 45; Not Satisfied 46 – 75; Satisfied 76 – 105 and Very Satisfied 106 – 120. According to Agyenim-Boateng, Ayebi-Arthur, Buabeng & Ntow, 2010 cited in Dabone, 2012), the strength of this tool is that it goes beyond simply observing variables and looking for relationships.

3.14.1 The Qualitative Data Analysis

3.14.1.1 Thematic analysis

According to Miles and Huberson, (1994), thematic analysis is used to analyze data because it deals with natural events and provides vivid descriptions and information that lead to responses from the data. Thematic analysis helps to create categories from the data, unlike qualitative strategies that predetermine categories. To achieve this goal, Braun and Clarke's (2006) thematic approach to qualitative data analysis was adapted to the study. According to Braun and Clarke (2006), thematic analysis is a method of identifying, analyzing, and reporting themes in the data. The following steps using an iterative process were used to analyze the collected data. Braun and Clarke's (2006) thematic analysis have six stages that have been outlined and described.

1. Data cleaning and familiarization with the data

To familiarize myself with the data, I listened to the audio recordings of the interview's multiple times (Gay, Mills, & Airasian, 2009). Each respondent was assigned a code number based on the order in which they were interviewed for ease of reference (Sommers and Sommers, 2002). Each respondent was assigned a specific code number. Field notes and responses were also named based on the number assigned to each participant. Separate files were prepared for the information collected from each participant,

including the transcribed interview transcripts, field notes, and participant responses during the interviews. This way, each participant's file can be identified by the number assigned to each participant, while ensuring confidentiality.

A verbatim audio recording of the interview was made and hesitations and pauses were also noted (McClellan, Macqueen, & Neidig, 2003). Each interview was recorded during the same week that the participant was interviewed. Notes were taken after each reading of the transcript to guide the participant's subsequent interview. Simultaneous data collection and transcription supported and guided the interview session with subsequent participants. Once all interviews were completed and recorded, all data was read carefully before coding. During this phase, notes were taken to identify trends and determine if any formative codes were present. This was done to preserve originality and ensure that no information was misinterpreted or lost. The transcribed data was read while listening to the tape recording to ensure there were no omissions. Each interview was summarized. This helped to conceptualize what the interviewees said and identify similarities and differences in their statements (Vanderpuye, 2013). Following the transcription process, the primary researcher carefully reviewed the data to familiarize herself with the depth and breadth of the content. This involved reading the data repeatedly in an active manner that guided the primary researcher in looking for context and patterns in what was shared. Each interview was recorded in the same week as the participant interview. Notes taken after each reading of the transcript guided the participant's subsequent interview. The simultaneous collection and transcription of data supported and guided the subsequent interview session with the participant. Once all interviews were completed and transcribed, all data was carefully read before coding. During this stage, notes were taken to identify trends and determine if any formative codes emerged.

2. Generating initial codes

Coding is the process of examining data for themes, ideas, and categories and creating code-labeled sections of similar text so that they can be easily retrieved at a later stage for comparison and further analysis (Taylor and Gibbs, 2010). After initial familiarization with the data and generating some ideas, the initial coding process begins. During coding, the data is organized into meaningful groups. The coding process involves reading the interview transcript verbatim and labeling words or parts of sentences with a pencil. Each sentence is read carefully and important words are highlighted. During the coding process, parts of sentences or words were coded and decoded multiple times throughout the process. The labels or codes represented important information that was essential to this study. I also kept notes during the coding process. Two people helped me through this process to ensure that nothing was forgotten during the tedious coding process.

3. Searching for themes

The relevant portions were examined together to identify potential themes. An analytical grid was developed to establish relationships between codes, subcategories, and categories to develop themes. Several subcategories were used in the final version of the themes, and some of them formed categories. Ultimately, four themes were developed based on the organization of the existing data.

4. Reviewing themes

This step involves refining the initially identifiable themes. Some of the initial themes are merged or split into different themes as the analysis progresses. The principles of internal homogeneity and external heterogeneity (Pattons, 1990) are used as guidelines for identifying the final themes. (Braun and Clarke, 2006) This step creates a thematic "map" for analysis if the themes work across the coded extracts and the entire data. Themes are developed by reviewing and refining the initial categories and making changes if they are not consistent. I looked at the main themes and sub-themes to ensure that themes that could not be addressed individually were grouped together and added to a similar theme. It also considered how themes related to the broader picture and research objectives.

5. Defining and naming themes

This phase of analysis aimed to refine the specifics of each theme and tell the overall story of the analysis, creating clear definitions and names for each theme (Braun and Clarke, 2006). I ensured that the names given to the subthemes were catchy and immediately communicated to the reader what they were about. In total, four main themes and 24 sub-themes were identified and refined based on the nature of the content each theme represented as well as identifying the aspect of the data each theme captured.

6. Producing the report

The final analysis was done, allowing for the report to be written. The report described all the themes in a valid and logical narrative from the raw data. It helped to understand the results and how the themes developed. The discussion focused on describing the themes generated as well as the

arguments related to the research questions. The themes developed during this process were related to each other and to the research questions. The analysis process, from coding to thematic and interpretation, was iterative. Notes were kept and used to establish a check of the results and final data presentation. Throughout the data analysis process, as codes and themes were developed from the raw data, the research supervisor was contacted and periodic discussions took place to ensure the 'data analysis' process was guided. Additionally, the research results were sent to the research supervisor to ensure that the process was followed and that the relevant results made logical sense from the data collected.

3.15 Trustworthiness

There are various standards for establishing credibility in qualitative research (Thomas & Magilvy, 2011). Credibility, transferability, dependability, and confirmability are the four main categories of reliability in qualitative research that Lincoln and Guba identified. The researcher used the following techniques to establish the study's trustworthiness of qualitative data: Credibility, triangulation, member checks, transferability, dependability, and confirmability were among the criteria (Valenzuela, D. 2016). In order to maintain the credibility of this study, the researcher used various strategies to present the results in a fair manner. This study attempted to establish its credibility by maintaining the credibility, transferability, and reliability of the findings.

3.15.1 Credibility

Shenton (2004) provided strategies for building credibility among researchers to inspire trust in their ability to analyze the phenomenon under study with accuracy.

Shenton contends that strategies that support participant honesty might enhance credibility. Credibility is associated with presenting an authentic picture of the participants and their experiences. At various points during the research process, those who are asked to participate in the study should have the option to decline.

This is to make sure that participants who were actually willing to participate and contribute freely were included in data collection sessions. The researcher got along with the participants and urge them to be honest when sharing their thoughts and facts. In this study, the researcher made an effort to build rapport. In order to build rapport, it was necessary to make and keep eye contact with the other person, smile and greet them truly, match nonverbal cues, and start a conversation.

Triangulation during data collection and processing further enhances the validity of the research findings (Denzin & Lincoln, 2008). Several methods, such as field notes, individual interviews, and observation, may be used in triangulation (Shenton, 2004). The researcher conducted individual interviews with study participants. The researcher also kept a journal for reflection. After the interviews were over, observations and notes are taken. The researcher's notes contained information about the date, time, and place of the interview. The researcher also made observations the participants, taking note of things like on their behavior before, during, and after the interview. Body language, responses to inquiries, and themes that emerged during the interview are all captured as observations (Valenzuela, 2016).

It is observed that peer debriefing helped build credibility by giving the study process to an outside audit, as explained by Creswell (2007). In the study, a peer debriefed is employed. An individual with a doctorate from the University of Education, Winneba served as the peer debriefed. Every transcript of the interviews is

giving to the peer debriefed. This person read all transcriptions, independently examined them, and then organized the information into themes. The themes discovered by the researcher and the peer debriefed were compared. There are no significant differences across the topics.

The most crucial means of establishing authority within a study is via means of member checks (Lincoln & Guba, 1985). Checks on the data accuracy can be performed right once or after the data have been gathered. The key question is whether the words actually mean what they were intended to mean (Shenton, 2004). The researcher checked the participant's membership in the study. The member checks took place during the interviews as a result of the researcher's inquiries and attentive listening. The researcher also got in touch with all of the participants once the transcripts of the interviews were completed. To ensure that the researcher fully grasped the meaning and message that the participant was attempting to express, the participant is given a summary of the interview. The researcher, in the opinion of all participants, faithfully captured the point they were making. Additionally, the use of quotes from participants when presenting results also adds to the credibility of the study. It allows for consistency between coding raw data and developing categories or themes from it.

3.15.2 Transferability

Transferability refers to the capacity to transfer study findings or methodologies from one group to another (Williams, 2015; Thomas & Magilvy 2011). The focus is on writing detailed descriptions that include research techniques and instances of unprocessed data (Houghton, Casey, Shaw, & Murphy, 2013). It is improved by giving the findings in-depth presentation together with pertinent quotations.

To facilitate the transferability of this study, participant characteristics, such as level of engagement, ability to interact, and make friends during their life experiences, played an important role in determining where and under what conditions the results of research can be transferred. It is assumed that infertile married individuals have their own perspective on life. However, it is hoped that this research can provide a clear picture of what is important to these individuals with infertility. The use of thematic and content analysis with an iterative process in data collection and analysis allowed for both the depth and breadth of the research objectives to be addressed. The researcher provided information about data collection techniques and recruiting inclusion criteria. There were also direct quotes from the interviews with the participants. The geographical locations are given, along with demographic data gathered using a demographic questionnaire.

3.15.3 Dependability

Dependability is the ability of another researcher to follow the research's decision-making process (Tenuche, B. S. 2018; Bentil, J. A. 2021). This includes explanations of the study's objectives, the criteria used to select participants, the methods used to collect and analyze data, the findings of the study, and the methods employed to assess the reliability of the data. The researcher also mentioned peer participation in the analysis process and provided a thorough description of the research techniques as ways for creating dependability. The research procedures were followed, and a peer helped with the data analysis.

3.15.4 Confirmability

Reflective qualitative research requires the researcher to consider how his or her preconceptions influence the study (Thomas & Magilvy, 2011; Williams, 2015; Valenzuela, D. 2016). Following interviews, the researcher can record field notes that

reflect their own emotions, prejudices, and insights. Reflective research enables building confirmability of the research and, ultimately, allows the reader or consumer of the research to have a sense of trust in the conduct credibility of findings, and applicability of the study. Maintaining a reflexive journal aid the researcher in seeing participants' meanings more clearly in addition to recognizing prejudices. In this study, the researcher utilized bracketing and kept a reflective journal. In order for confirmability to happen, the researcher tried to create credibility, transferability, and dependability.

3.16 Ethical Considerations

The research strictly adheres to ethical principles. All facets of any research have ethical implications (Flick, 2014). It is noted that the researcher must follow current ethical codes in order to monitor and manage the relationship between the researcher and the participants to preserve any harm that is likely to influence participants directly or indirectly (Bentel, 2021). In Joselson's (2007) opinion, interpersonal ethics requires concern for the integrity, privacy, and well-being of those being studied. The study attempted to address this through data collection, data analysis, and reporting. Ethical consideration was taken care as not to infringe on the rights of participants to provide trustworthiness of the study (Bentil, 2021).

The University of Education, Winneba graduate school's ethics code require research procedure to be based on informed consent, permission and voluntary participation of participants prior to the study. Ethical practice and ethical codes are generally focused on the principles of ensuring the free consent of participants to participate, ensuring confidentiality of materials gathered, and protection of participant from any harm that might arise from their participation (Bentil, 2021).

Consequently, I subsequently obtained notified consent and permission from participants before data collection began.

3.17 Summary

The goal of this study is to illuminate the experiences of infertile married individuals' Marital Satisfaction and their coping strategies with the phenomenon. The researcher used a Sequential Explanatory Mixed Method Research Design. Respondents and Participants are selected via snowball and a convenience sample, and a questionnaire provided demographic information on each person. The information is gathered using Marital Satisfaction Likert Scale, Perception about Causes of Infertility Inventory (PACI) and semi-structured interviews that are digitally recorded, then transcribed. Data analysis includes coding and theme identification in order to present a composite narrative of the meanings and essence of the participants' experiences. The next chapter contains the researcher's findings. The steps in data analysis are shown along with details on the sampling techniques. The quantitative results analysis and the themes from the qualitative analysis are discussed in detail in the next chapter of this study.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.0 Introduction

This chapter presents the results and findings of this study. The study was to investigate Infertility, Marital Satisfaction, and Coping Strategies among Couples in the Korle Klottey Municipality. In this chapter, the quantitative and qualitative data analysis is presented under each objective and theme. The quantitative data are presented in tabular form with figures; haven analyzed the data by percentages, Means, and St. Deviation while the qualitative data are analyzed thematically. The qualitative data are used to support the quantitative data.

4.1 Quantitative Data Analysis

The demographic characteristics of the respondents are shown in Table 4. The Demographic data consist of information about the sample according to attributes such as age, gender, religion, educational level.

Table 4: Demographic Characteristics of Respondents (n = 271)

Scale	Sub-scale	Frequency	Percentages
Gender	Male	88	51.5
	Female	83	48.5
Age Range	20-39	40	23.4
	40-59	93	54.4
	60-79	38	22.2
Education Level	Masters	16	9.1
	Degree	78	44.6
	A' Level	7	6.2
	O' Level	15	8.6
	SHS	36	20.6
	JHS	19	10.9
Religion	Christians	171	100

Source: Fieldwork, 2024

Table 4 presents the demographic characteristics of the respondents of the study. A total of hundred and seventy-one (171) respondents took part in the study. The table shows that males were eighty-eight (88) representing 51.5%, while female respondents were eighty-three (83), which represents 48.5%. In terms of age range, forty (40) respondents were between the ages of 20-39 which represents 23.4%, Ninety-three (93) fell within the age range of 40-59, represents 54.4%, and thirty-eight (38) were between the ages of 60-79 represent 22.2%. In in terms of Education level, sixteen (16) had Master's degree that represents 9.1%, Seventy-eight (78) respondents schooled up to the degree level that represents 44.6% "A" Level holders were seven (7) representing 6.2%, fifteen (15) of the respondents had O' Level which represents 8.6%, respondents while Senior High Certificate were thirty-six (36) representing 20.6%. Finally, nineteen (19) respondents claimed to have Junior High Certificate representing 10.9%. Christian respondents were hundred and seventy-one (1) 71which represents 100%.

4.2 Research Question One: What are the perceived causes of infertility in Korle Klottey Municipality?

To answer research question 1 above, results are presented in Table 5 below: Measurements: Agreed (A) = 4.0 - 3.5, Disagreed (D) = 3.4 - 2.5 and Not Sure (NS) = 2.4 - 1.5.

Table 5: The Means (M) and Standard Deviation (SD) distribution of Married individuals' perception about cause of infertility

Items	Agree (A) %	Disagree (D) %	Not sure (NS)	Mean	SD	Decision
Previous abortion causes	143	74	54			High
infertility in women	(53)	(27)	(20)	3.51	.86	perception
Blockage of the fallopian tube	140	71	60			High
causes infertility in women	(52)	(26)	(22)	4.02	.99	perception
The pelvic inflammatory	136	76	59			High
disease causes infertility in women	(50)	(28)	(22)	4.03	.94	perception
Low sperm count causes	150	69	52			High
infertility in men	(55)	(26)	(19)	4.04	.96	perception
Curses from the fetish/gods	155	64	52			High
cause infertility among couples.	(57)	(24)	(19)	3.50	.88	perception
Witchcraft causes infertility	142	75	55			High
among couples.	(52)	(28)	(20)	3.52	.85	perception
Evil spirits cause infertility in	152	71	49			High
both men and women	(56)	(26)	(18)	3.63	.93	perception
Breaking a taboo in the	89	92	90			High
community causes infertility.	(33)	(34)	(33)	4.01	.84	perception
Previous use of contraceptives	122	94	55//			High
causes infertility.	(45)	(35)	(20)	3.61	.85	perception
Past promiscuous life causes	97	130	44			Low
infertility	(36)	4(48) or SER	(16)	2.54	.64	perception
Excessive intake of alcohol	127	88	56			High
causes infertility	(47)	(32)	(21)	3.70	.97	perception
Excessive smoking causes	116	97	58			Low
infertility	(43)	(36)	(21)	3.41	.88	perception
The influence of personality	81	130	60			Low
traits causes infertility.	(30)	(48)	(22)	3.40	.86	perception
Strain family relation causes	56	153	62			Low
infertility.	(21)	(56)	(23)	2.52	.65	perception
Sexual disorders cause	152	68	51			Low
infertility.	(56)	(25)	(19)	3.41	.89	perception
Reproductive cycle disorders	144	91	36			Low
cause infertility.	(53)	(34)	(13)	2.42	.87	perception
The endocrine mechanism	90	120	61			Low
affected by stress causes infertility	(33)	(44)	(23)	3.34	.88	perception

Fieldwork, 2024 Note: N = 271 A = Agree D = Disagree NS = not sure

In this research, a decision would be made using the mean of mean value (grand mean). The researcher sums up the mean value of the items and divided by the total number of items. The mean of mean (Grand mean) d = 68.11/17 = 4.00

The Table shows that, in terms of perceived medical causes of infertility the results indicate that, "Previous abortion causes infertility in women" (Mean 3.51 and SD .86), "blockage of the fallopian tube causes infertility in women" (Mean 4.02 and SD .99), and "low sperm count causes infertility in men" (Mean 4.03 and SD .94). These fall within the score interval of 4.0 - 3.5. This indicate that infertile married individuals agreed that the above-mentioned were perceived causes of infertility. For "Pelvic inflammatory disease", (Mean 4.03 and SD .94). For Supernatural, the results indicate the following; "Curses from the fetish/gods cause infertility among couples (Mean 3.50 and SD .88), "witchcraft causes infertility among couples" (M 3.52 and SD .85) "evil spirits cause infertility in both men and women" (M 3.63 and SD.93). Regarding cultural and taboos the results indicated the following: "breaking a taboo in the community causes infertility (M 4.01 and SD.84), Biological causes of infertility recorded were; "previous use of contraceptives" (M 3.61 and SD.85), Social causes identified are; "excessive intake of alcohol" (M 3.70 and SD .88845). However, results of "Past promiscuous life" (M 2.54 and SD 64). "Excessive smoking" (M 3.41 and SD .88). For psychological Causes, respondents indicated the following; "the influence of personality traits" (M 3.40 and SD .86), "strain family relation" (M 2.52 and SD .65), "sexual disorders" (M 3.41 and SD .89), "reproductive cycle disorders" (M 2.42 and SD 87). The endocrine mechanism affected by stress causes infertility (M 3.34 and SD 88). The results of Social and Psychological causes of infertility fell within the score interval of 3.4 - 2.5. This indicate that some of respondents disagree that the above-mentioned could causes infertility among married individuals in Korle Klottey Municipality.

4.3 Research question two: To what extent do infertile married individuals satisfied in their marriages in Korle Klottey Municipality?

In answering research question 2, the research questionnaire on marital satisfaction was used. The data from table 6 is used to answer the research question. The terms on the Likert Scale are measured using the following interval scale: Not at All Satisfied (NAS) = 1.4 - 1.0; Not Satisfied (NS) = 2.4 - 1.5; Satisfied (S) = 3.4 - 2.5; Very Satisfied (VS) = 4.0 - 3.5

Table 6: Responses of married individuals on their marital satisfaction

Items	VS (%)	S (%)	NS (%)	NAS (%)	Mean	SD	DECISION
I always feel fulfilled, happy in	33	46	72	120	1.87	.86	NS
the company of my spouse.	(12)	(17)	(27)	(44)			
I like the way my spouse	43	46	78	104	2.67	.86	NS
converses and shares jokes with me.	(16)	(17) R S	(29)	(38)			
I am satisfied sexually with my	39	50	84	98	1.89	.88	NS
marriage.	(14)	(18)	(31)	(37)			
I am very worried because my	104	69	53	45	1.84	.87	NS
spouse does not appreciate all the sacrifices I put in my marriage.	(38)	(25)	(20)	(17)			
I and my spouse quarrel over	100	69	57	45	1.88	.89	NS
petty disagreements and each other's feelings very often.	(37)	(25)	(21)	(17)	1.00	.07	110
My spouse is not trustworthy.	98	67	64	42	2.84	.96	NS
He/she is cunning, not reliable.	(36)	(25)	(24)	(15)			

I will feel much happier if I move out of my present	90 (33)	70 (26)	64 (24)	47 (17)	2.19	.88	NS
marriage. My spouse is the best I can ever	49	50	80	92	1.99	.96	
have.	(18)	(18)	(30)	(34)			
I like my spouse a lot for	38	51	98	84	2.20	.93	NS
helping me with the household chores.	(14)	(19)	(36)	(31)			
My spouse always seeks my	42	48	91	90	1.97		
opinion on important issues concerning our marriage.	(15)	(18)	(34)	(33)			
My in-laws are very helpful	49	50	80	92	1.98	.85	
and give me respect.	(18)	(18)	(30)	(34)			
I am fed up with my spouse	52	60	73	86	2.18	.90	NS
because he / she is stubborn, never ready to change his bad ways.	(33) (26) (24) (17) er 49 50 80 92 (18) (18) (30) (34) 38 51 98 84 d (14) (19) (36) (31) 42 48 91 90 (15) (18) (34) (33) 49 50 80 92 (18) (18) (30) (34) 52 60 73 86 (19) (22) (27) (32) 53 46 82 90 (20) (17) (30) (33) 39 50 84 98 (14) (18) (31) (37) ey 100 69 57 45 or (38) (25) (20) (17) ne. (37) (25) (21) (17) 98 67 64 42						
My spouse is too cold for my	53	46	82	90	1.92	.98	
liking. I do not enjoy his company.	(20)	(17)	(30)	(33)			
My spouse is indifferent. He	39	50	84	98	2.84	.94	
does not care about what I do with my life.	(14)	(18) 4//ON FOR	(31)	(37)			
My spouse keeps his/her money	100	69	57	45	1.76	.90	NS
to himself. He/she does not perform his financial duties for the upkeep of the home.	(38)	(25)	(20)	(17)			
I notice that my husband is	100	69	57	45	2.01	.80	
becoming more attractive to me. I am growing to love him more and more.	(37)	(25)	(21)	(17)			
My in-laws are my worst	98	67	64	42	1.09		NS
enemies in my marriage. They make my life miserable.	(36)	(25)	(24)	(15)			
One thing I like about my	90	70	61	50	2.20	.75	NS
husband is that he admits his faults and apologizes.	(33)	(26)	(23)	(18)			

My spouse speaks to me harshly as if I am a child. I strongly dislike this.	120 (44)	60 (22)	40 (15)	51 (19)	1.08	.81	NS
Our conversation always ends in a quarrel. So, we scarcely converse these days.	90 (33)	84 (31)	49 (18)	48 (18)		.86	NS
my spouse accept disagreement without hurting each other's	98 (36)	62 (23)	59 (22)	52 (19)	1.10		
feelings. My husband nags too much to my discomfort.	78 (29)	72 (27)	66 (24)	55 (20)	2.08	.86	
My spouse appreciates my cooking always. I like this.	94	82	66	29	1.20	.86	
My spouse speaks harshly and angrily to my relatives when	(35)110(41)	(30)	(24) 47	(11) 33		.93	
they visit. This displeases me. I like the way spouse phones and converses when he travels.	90	70	(17) 64	(12)	1.75	.83	NS
He does it frequently. My spouse is committed.	(33)	(26)	(24)	(17) 92	1.60	.88	NS
He/she gives enough house- keeping money and sometimes gives more.	(18)	(18)	(30) SERVICE	(34)			
My husband has great respect for me. He admires my hard work at home.	38 (14)	51 (19)	98 (36)	84 (31)	1.90	.86	
No matter how well I cook, my spouse would find some fault.	42 (15)	48 (18)	91 (34)	90 (33)	1.82	.93	
He/ she is always complaining about my cooking.		, ,	` '	, ,	1.60	92	NC
My spouse gets angry too frequently and beats me. I am thinking of reporting him to the police.	95 (35)	79 (29)	67 (25)	30 (11)	1.60	.83	NS
I enjoy my spouse's company most times.	42 (15)	67 (25)	64 (24)	98 (36)	1.60	.88	

Fieldwork, 2024

The table revealed that married couples are not satisfied with their marital relationship. For instance, in terms of Relationship, married couples indicated the following; (my spouse converses and shares his/her experiences with me. 1.87 and SD .86), (quarrel over petty disagreements 2.67 and SD .88), and (spouse keeps in touch when he/she travels 1.84 and SD .89). The above fell within the score interval of 1.6 – 3.4, which is interpreted as not satisfying.

In terms of Affection, Love & Appreciation, the results indicated the following, (satisfied sexually with my marriage 1.88 and SD .94), (spouse does not appreciate the sacrifices I put in the marriage 2.84 and SD .96) and (My spouse respects and admire me very much. 1.76 and SD .93). These fell within the score band of 1.6 - 2.4, which is interpreted as not satisfying. Regarding the character of spouses, the results indicate the following; (My spouse is not trustworthy 2.01 and SD .85), (I am fed up with my spouse 1.09 and SD .90). These fell within the score band of 1.6 – 2.4, which is interpreted as not satisfying. Again, in terms of temperament of couples, respondents respond, (My spouse gets angry too frequently and beats me 1.10 and SD .75) and (My spouse is indifferent 2.08 and SD .81). These fell within the score band of 1.6 - 2.4, which is interpreted as not satisfying. For marital role, the results showed the following; (my spouse does not perform his/her financial duties 1.75 and SD .86) and (My spouse is committed 1.54 and SD .85). These fell within the score band of 1.6 - 2.4, which is interpreted as not satisfying. Finally, for general evaluation, the respondents responded, (I always feel fulfilled in my marriage 1.60 and SD .86) and (I feel much happier if I move out of my present marriage 1.90 and SD .93). These fell within the score band of 1.6 - 2.4, which is interpreted as not satisfying.

The details of the results of the overall level of marital satisfaction of infertile married individuals are presented below:

Table 7: The level of marital satisfaction of respondents

Level	Scored	Group 1		p 1 Group 2		
		N	%	N	%	
Not At All Satisfied	30 – 45	23	17.3	22	15.9	
Not Satisfied	46 - 75	63	47.4	65	47.1	
Satisfied	76 - 105	27	20.3	32	23.2	
Very Satisfied	106 - 120	20	15.0	19	13.8	
Total		133	100	138	100	

Fieldwork, 2024

The chi-square test shows there is a significant association between marital satisfaction and infertility of married individuals χ^2 (N = 271, 22) = 10.79, p = 008. The results show that the first group of the respondents w scores NAS = 17.3%, NS = 47.3%, S = 20.3% and VS = 15.0%. Also, the scores of the second group were as follows: NAS = 15.9%, NS = 47.1%, S = 23.2% and VS = 13.8%. Now, to answer the research question one, the data analysis show that put together 64.7% of the first group respondents and 63% of the second group respondents were not satisfied with their marriages. Furthermore, 35.3% of group one and 37% of group two were not satisfied with their marriages. Therefore, it can be said based on the data that majority of the respondents of infertile married individuals were not happy in marriages in Korle Klottey Municipality.

The above results indicate that findings are not consistent with the following studies. First, the findings do not resonate with the study of Haris and Kumar 2018, which mentioned that communication is essential to a happy marriage, and effective communication skills are the main indicators of marital satisfaction. Second, the findings do not confirm the study of Renanita and Lukito Setiawan, 2018, which

maintained that sexual satisfaction positively correlates with total marital satisfaction. Third, the findings did not resonate with the study of Du Plooy, et al, 2018, which discovered that marital satisfaction is influenced by efficient communication in marriage.

The findings from this study reject the finding from Agyemang, Agyemang, and Sekyi 2020, which confirmed that spousal sharing values, providing companionship, respect, and satisfying sexual relationships lead to marital satisfaction among married individuals. The reasons for the differences in the results is that, infertile married individuals face many challenges in their marriages such as stress, depression, trauma, anxiety, infidelity, divorce, abuse, social isolation and stigmatization. These challenges have effect on the infertile married individuals which intend affect their sex life, communication pattern, time spent together, conflict resolution and marital satisfaction.

4.3.1 Hypothesis 1

1. Ho: Infertility will not statistically significantly predict marital satisfaction of married individuals.

H₁: Infertility will statistically significantly predict marital satisfaction of married individuals.

Table 8: A summary simple Linear Regression on infertility predicted Marital Satisfaction

Hypothesis	Regression	Beta Coeff.	R ²	F	P - Value	Hypothesis Supported
H _o	Infertility — Marital Satisfaction	.579	.576	83.599	.024	Yes

Fieldwork, 2024 P < .001, Infertility: Marital Satisfaction

To investigate if infertility statistically predict marital satisfaction of married individuals in Korle Klottey Municipality. The research hypothesis is to test if infertility can predict marital satisfaction of married individuals in Korle Klottey Municipality. In this research, the dependent variable which is marital satisfaction was regressed using the independent variable which is infertility to test the research hypothesis. The results showed that, infertility significantly predict marital satisfaction f(1,219) = 83.599, p < .001. This means infertility can predict marital satisfaction (b = .579, p < .001). Again, the results indicated that the $R^2 = .576$ means that simple linear regression accounts for 57.6% of the variance in infertility. In view of this, the alternative hypothesis which stated that, "infertility will statistically significantly predict marital satisfaction of married individuals" is accepted but the Null Hypothesis is rejected.

4.3.2 Hypothesis 2

H₀: The marital satisfaction of infertile young married individuals will not be different from infertile old married individuals.

H₁: The marital satisfaction of infertile young married individuals will be different from infertile old married individuals.

Table 9: T-test comparing marital satisfaction of infertile young and old married individuals

	Young		Old				
Scale	Mean	SD	Mean	SD	T	P	sig
					values	values	
Relationship	1.87	.76	2.34	.95	3.124	.752	NS
Affection, love and	2.35	.68	1.88	.84	2.913	.644	NS
appreciation							
Character	1.79	.85	2.84	.68	3.006	.563	NS
Temperament	1.61	.76	1.92	.77	2.229	.619	NS
In-law Issues	1.55	.73	2.74	.79	2.517	.613	NS
Marital Role	3. 84	.85	2.64	.83	3.454	.043	S
General Evaluation	1.87	.84	1.88	.86	2.437	.612	NS
Marital Satisfaction	2.2347	.7814	2.3251	.8171	2.8114	.061	NS

Source: Fieldwork, 2023

df = 428, p < 0.05

The research hypothesis one sought to determine the difference in marital satisfaction among infertile young married individuals' vis-a-vis infertile old married individuals. The hypothesis was tested using independent sample t-test. The independent variable is age: younger age and older age. The dependent variable is the level of marital satisfaction. From the table, it is revealed that young infertile married individuals had a marital satisfaction level of 2.23 whilst the old infertile married individuals had marital satisfaction level of 2.32. These scores fell within the score band of 1.6 - 2.5 which is interpreted as not satisfied. This revealed that age of married individuals would not make a difference in terms of marital satisfaction. Therefore, the Null Hypothesis of this study, which stated that "The marital satisfaction of infertile young married individuals will not be different from infertile old married individuals" is sustained. However, the alternative hypothesis which states that "The marital satisfaction of infertile young married individuals will be

different from infertile old married individuals" is rejected. This implies there is no significant difference between the age of infertile married individual with regards to their marital satisfaction.

4.4 Phase II Qualitative Analysis

4.4.1 Introduction of Themes

The themes are reconnected in a meaningful way to provide a synthesis of the essential components of the events that were discussed. Themes that emerged from the interview with Participants were discussed under each research question.

4.5 Research Question Three: How does infertility affect marital satisfaction of married individuals in Korle Klottey Municipality?

The themes generated from the interview guide to answer this research question were as follows: communication, sexual life, financial support, marital respect, marital commitment and marital appreciation

4.5.1 Communication

In terms of communication, four (4) of the participants shared their stories. A participant was not happy with the way her husband communicates with her. She said;

"Hmm, we are not talking to each other as used to be...my husband is not talking to me...he will shout at me all the time." (SY0011).

Another Participant in the interview said,

"I can see my husband conversing with other women after church but he will not to that to me at home...it is very serious" (AS0015) One of the participants also said,

"I don't know how I will say it...my wife has suddenly changed. She hardly communicates with me in the house...it is a worry and getting worse" (IS004)

Participant in the interview said,

"My wife denies me sex always; I don't know why? This has really changed my mind about the marriage...it is very serious" (IS004)

4.5.2 Sexual life

During the interview, six (6) of the infertile married individuals narrated their life experiences in their marriages. One of the participants said;

"We are not having sex as husband and wife any more. I am not interested because no pregnancy comes out of it" (SU009)

Another participant also said the following;

"The fact is that you are married and you are expecting a baby within a year and you are not getting. It is a challenge. I don't remember the last time I have had sex with my wife.... we sleep separately." (AC003)

A participant recounted during the interview that she wants to be a mother. She said,

"I'm determined to have a child and also be counted as a mother. But I lost the joy of sex because it does not bring the children" (CY0013).

Another participant narrated that she needed a child and said;

"I want to experience the joy of motherhood.... when I am in the room alone with my husband, he does not touch me...we are not having sex at all...it is getting out of hand now...I am not happy in the marriage". (MA005).

Another participant also said the following;

"It has been difficult for me to have sex with husband. I will say that due to our infertility there is no sex between us nowadays" (AC003)

A participant recounted during the interview that she wants to be a mother. She said,

"In fact, our sex is now regulated by our doctor. So, I lost the joy of sex" (CY0013).

Another participant narrated that she needed a child and said;

"I have forgotten about sex completely... well, I will say I damped the desire of sex". (MA005).

Also, another participant narrated her story thus;

"For now, my sexual life is directed by the doctors...I have to wait for ovulation period...so sex is now boring and so I lost interest. It has affected my wife and the marriage (TA006)

A participant narrated his sexual life experience as follows;

"I feel useless before my wife...I cannot make love because I am depressed...I don't have the desire to make love again" (IS004).

4.5.3 Financial support

It was noted from the interview that Five (5) participants mentioned that infertility brought financial burden which affected their marriages. Many of them expressed their helpless experience in the following ways;

"I'm very helpless because all my savings is gone... It really hurt since all medications and treatment cost a lot of money. I don't receive any financial support from my husband. I don't enjoy the marriage anymore" (RI0014).

A participant narrating his financial support situation, said;

"I have spent all the money I have on fertility treatment...I don't receive any financial support from anywhere...even though my wife works" (SH0012).

Another participant also said;

".... If I think of the money spent, it is something that cannot be quantified. It's not easy. I stopped taking any medication. I was fed up. I was totally fed up" (FR002).

And yet another expressed his experiences this way;

"The medication is too costly for one person to bear but I am the only one since my wife has no paid job. It is very difficult and it is affecting our marriage seriously" (MI008)

It is observed from the interview that AB007 experienced serious financial crisis. He said:

"My in-law gave me a lot of pressure, so I withdraw all that I have at the bank...it is very serious. I used the money on medication, prayers and treatments. But there are no results, hmmm. I have has packed out of my house" (AB007)

4.5.4 Respect

Six (6) participants shared their experience about the respect that they used to enjoy both within and outside their families. One of them said;

"I used to enjoy respect from husband and the family but now I don't get that... I've never experienced any disrespect from my family like that... his family continues to disrespect me for not have a child. This has affected our marriage to the point that ... now we are about to divorce". (CY0013) From the narration of SU009, there was much disrespect which had affected her. This is what she said:

"My own husband doesn't respect me...disrespect from my friends...at times I have to keep quite in the house else my husband will disrespect me". (SU009)

One of the participants shared his experience on how his wife's senior sister who was not in Ghana but always disrespect him. Michael said;

"Hmm.... I don't know how to put it.... the disrespect from my wife's senior sister was too much for me.... I have developed severe headache right now ... hmmm, my blood pressure is very high now...all because is my wife's senior sister" (MI005)

From the data, it is observed that SU009 encountered some of the disrespectful behavior from her husband and the extended family. This was what she said;

"I encounter much so much disrespect from my own husband who thought that I am the one with a problem ...he thought because I did surgery, I will not conceive.... this made him to disrespect me and at a point he threatened to leave me...I mean divorce me.... this was something I couldn't bear at all" (SU009)

FR002 mentioned that the humiliation her experiences was enormous which nearly took his life. He said;

"My humiliation and disrespect stemmed from one lady in my office ...she said many things into my ears ...not a single day passed without telling me Hey man, 'time is far spent and you seem not to think of having a child' ...one day I decided to kill myself...God really saved my life" (FR002)

It is observed from the interview that AB007 experienced disrespect of being childless from extended family. He said;

"My in-laws are always on my neck.... Asking me questions about pregnancy. Hmm...the way they talk to me really hurts me too much...I decided to divorce their daughter" (AB007)

4.5.5 Commitment

The participants narrated the need for commitment from spouses during this difficult time of their marital journey. A participant shared her experience in the following narration. She said;

"No commitment from my husband...we started well but now, everything nothing is not going on well...no serious commitment. This affecting our marriage currently...it is very serious." (SL008).

It is observed that SL008 encountered some of the pressures with her husband. This was what she said:

"...err.... Hmm...there lack of commitment from my wife, her behavior these days is something else...I don't know why she has changed...she cares about nothing in the marriage" (SY0011).

A participant narrated his challenge with the extended my family. This was what he said;

"Initially I receive some commitment and support from the extended family but now no such support and commitment...we are left alone and this is seriously affecting our marriage." (SH0012)

From the data it was observed that one of the participants shared lack of commitment on the of part her husband. This was what he said,

"It is like I am the cause of the situation... he is not contributing anything. He not committed to our struggle for a child. I feel like seeking for divorce" (IS004)

4.5.6 Appreciation

Every human being wants to be appreciated; however, some infertile married individuals narrated their experience on how their spouses failed to appreciate them which had an impact on their marriages. TA006 narrated his side of the story during the interview. This was what he said;

"Nowadays, my wife does not appreciate the things I do in the house...she talks about all that I do...this is pushing me out of the house" (TA006)

A participant shared her experience this way;

"Any time I prepare food my husband will complain... no appreciation and encouragement...it hurts if you are being appreciated after all the effort" CY0013)

Another participant narrated said;

"I spend a lot of money of fertility treatment but my husband does not see it or appreciate it, so I decided to stop and now it is affecting our marriage" (AS0015).

This was what another participant shares during the interview. He said;

"My in-laws do not appreciate the things I do for us to get a child...they always complain to my dad and mum, for now I have stopped everything that I do in the marriage" (MI005)

4.6 Research Question Four: How do infertile married individuals cope in their marriages in the Korle Klottey Municipality?

The themes generated from the interview dates were as follows: stigmatization/shame, Self-isolation/socialization, coping with infertility, Emotional feeling, support and encouragement, support, social isolation, withdrawal and avoidance.

4.6.1 Stigmatization/ shame

It is observed that, infertile married individuals face discrimination, stigma, and solitude in many cultures across the world. People's negative attitudes are frequently cited as the most difficult social stigma they had to deal with. Infertility-related social concern caused several participants to retreat to varied degrees from social life. Others stopped attending social occasions like birthdays because of the continual pressure and questioning of their inability to have children, and in other circumstances, they are discriminated against outright by not being invited to such events (Atang, 2016). During the interview, one of the participants said;

"...when I go to functions, I isolate myself because people ask questions, 'where are your children?' 'When are going to give birth?' It's an embarrassing situation to me" (RI0014)

A participant shared his views when it comes to stigmatization from the out world.

This is what some said;

"I have encountered stigmatization several times both at home at work. In 2015 when I graduated from school, my people were coming to join me celebrate.... They were asking 'Where are your children?' 'Where is your wife?' In fact, I became ashamed of myself. My siblings were there my In-laws were there and all my loved ones were there. And everybody is looking to see my children and my wife.

Here is the case I don't have children. I will and I will never forget that day in my life. I was totally embarrassed. At times in church, when we are dedicating the children, sometimes I find it difficult to hold them, my facial expression tells it all" (AK003)

From the interview, it is observed that GA0010 encountered some stigmatization. This was what he said;

I've observed that, where I stay now, there is one woman who doesn't allow her child to come to me... Because the mother doesn't want him to come to us because we don't have a child." (GA0010)

4.6.2 Self-isolation

From the data gathered it was observed that most of the participants shared their experiences on self-isolation and socialization. One of the participants said;

"I find it difficult to mingle with colleagues at work...they talk about their families and children...they send messages to their children's teacher.... ah...hmm. it is ok ...(AB007)

Another participant also said;

"I encounter a nasty experience in a VIP bus to Kumasi...., I heard a woman saying...... 'you don't have a child but you are here making calls.... I want my child to sleep'.... I decided not to associate myself with people again." (RI0014)

One of them had similar feeling thus;

"Socially...hmmm....at first, I isolate myself from people....
especially anytime I attend events... weddings, naming
ceremonies... Graduations I decided to isolate myself from
friends and family members because a lot of people will be

asking me where are your children...am deeply hurt...?" (SY0011)

4.6.3 Coping strategies

When faced with persistent pressure from their family and the culture in which they reside, it was acceptable and only natural for childless individuals to experience a massive sense of loss, sad, frustration, and devastation. During the interviews, the participants expressed all of these emotions at some point. However, their ability to go through all of these emotions while the remaining firm was through the support from loved ones, participation in activities such as their daily jobs. The majority of them being Christians stated that they have faith in God to help them overcome their fertility problems. This was what one said;

"My strength now is God.... I tried all lot of medications.... the only support I have now is to trust in the God I know..."
(ES001)

This was what GA0010 said;

"Crying all night with tears in prayer.... I walk in the room till 5'am in the morning.... talking to God and crying ...after that, I feel fulfilled for the day" (GA0010)

A participant shared her experiences as follows;

"...very difficult to cope with this situation.... people will ask about my children... I make sure I don't expose myself ...because I don't know when I will meet my friends...even at home I withdraw from my husband to save a quarrel... I felt like leaving the home" (GA0010)

Another also said;

"For coping strategies, one strategy I used is to psych myself up.... I told myself that after all, God is the one who gives a child.... Therefore, whatever comes I don't care about it. I believe that God will give me in due time...So, I still keep my trust in the Lord.... I use Scripture to set myself up. I also rely on the church that I attend... if God has done it for Hannah.... God has done it for Sarah... God can also do it for me.... that is the coping strategies I used." (FR002)

4.6.4 Support and encouragement

It is observed that when a person is struggling with infertility, and every month's effort to become pregnant is slashed away; or if they were fortunate enough to become pregnant, only to have it taken away almost immediately by miscarriage or stillbirth, they often turn to their loved ones for hope of support and comfort. The participants' stories revolved around their family and friends' support and encouragement. Some people stated that having their spouse's support helped them deal better with the problem they face (Atang, 2016).

"For church Pastor and the wife.... they encourage me always...it has really helped support I receive it from my me" (SY0011)

A participant said;

"Colleagues at work support me financially....am most grateful...at least somebody is there to support and encourage me...my dad speaks to me with uplifting words..." (MI005)

Another participant also said;

"Sure...friends and my father-in-law.... Encourages me...I cry because I am not able to give him grandchildren..."

(AC003)

4.6.5 Spiritual support

It is observed that religion has a far-reaching beneficial influence on people's minds and attitudes. A study on cancer risk found a difference in life expectancy of more than seven years between those who participate in religious events at least twice a week and those who do not. Research had showed a link between religious participation and improved mental health, educational attainment, and economic well-being. In addition, studies of young people growing up in industrialized countries who are religiously involved reveal a lower risk of substance abuse, criminal behavior, delaying early sexual activity, and an overall favorable attitude toward settling into family life at the appropriate time (Atang, 2016).

It was noted, Hudson and colleagues (Hudson, 2009; Culley *et al.*, 2009) found similar results in their study on infertility beliefs and experiences among South Asian groups in the United Kingdom. Religion, according to the authors, plays a crucial role in conceptualizing and coping with infertility. They note that praying, fasting, going on pilgrimages, and other religious rituals were frequently mentioned as processes that may help with reproductive success and that most of their participants added that some members of their community would often engage in those religious rituals when faced with difficult situations (Atang, 2016).

Many of the participants shared their experiences. This was the narration from one of them. He said:

"My only strength is in God... I spend a lot of time with God...praying and singing throughout the night ... waiting for God to come in...." (AB007)

A participant narrated how she cope with her condition. This was what she said;

"At a point, I cannot sleep...always praying...praying because evil spirits can cause it.... I was very encouraged when I saw my friends praying for me...I wept (SL008)

The following were the words of one of the participants, said;

"My church pastor supported me in prayers...I was touched ...I attended many prayer retreats and conferences ...I was looking up to God..." (TA006)

4.5.6 Psychological feelings

It was observed that, as each monthly menstrual cycle went with no evidence of pregnancy, the ongoing effort of trying to conceive built up all kinds of sensations and emotions of despair, loss, agony, frustration, tears, mourning, and grieving. Some of the participants had suppressed their feelings for a long time because they were unable to acknowledge that there was some difficulty in conceiving a child. (Atang, 2016).

The following were some of the emotional experiences of the participants. This is what they said in the interview,

"These issues infertility had made me develop depression...
which affected my life.... I was advised to relocate to a

different location so that pressure will not be mounted upon me in order to kill me". (CY0011)

SH0012 shared the emotional feeling he went through during the interview. He said;

".... emotional issues are just too much... it is not easy... I have gone through a lot of depression... a lot of depression. At that point, I became so nervous, and depressed.... I could not eat. I could not concentrate... I could not do anything" (SH0012)

Another participant added that he goes through many emotions. This is what he said;

"I don't know the word I will use to describe the emotions I go through...at times people will say that I feel the way you feel, but it is not true ... I know what I am experiencing in this condition... When I lost the pregnancy and I went for DNC... very painful....and that kind of experience I went through cannot be explained..." (ISO04)

4.6 Integration of Quantitative and Qualitative Data

Data integration is a critical procedure and innovative strategy in the analysis and conceptualization of phenomena employing mixed methods research. Data integration combines quantitative results with qualitative insights to provide the data with a broader understanding. Data integration increases the advantages of mixed-methods research while reducing the drawbacks of a single methodology (Fielding, 2012; Fetters, Curry, & Creswell, 2013 & Othman, Steen, & Fleet, 2020).

Findings from the self-adapted perceived causes of infertility questionnaire and Marital Satisfaction questionnaire data are integrated with infertile married individuals' responses from the interviews. These integrated findings are presented as follows: perceived causes of infertility, factors influencing marital satisfaction, effects

of infertility on marital satisfaction, and coping strategies of infertile married individuals.

4.6.1 Perceived Causes of infertility

The quantitative data showed that many respondents perceived that the cause of their infertility is because of previous abortion, blockage of the fallopian tubes, low sperm count, curses, witchcraft, evil spirits past promiscuous life, breaking of taboos, and past use of contraceptives. All these had a high mean and standard deviation from the dataset in table 1 and fell within the threshold of Agreed 4.0-3.5 respectively.

Similarly, the interview data revealed that witchcraft, evil spirit, low sperm counts, abortion, and contraceptives are some of the causes of infertility as evidenced following statements.

It can therefore be concluded that respondents in the quantitative and the participants in the qualitative perceived that the above-mentioned causes of infertility applied to them. These findings were consistent with the study of Rasak and Oladipo, (2017) which stated that low sperm count, and blockage of the tubes that transport sperm, were the most common causes of infertility in men. Infertility in women was because by ovulation problems, and fallopian tube blockage. In addition, a recent study by Koster-Oyekan, (1999) maintained that abortion, fibroid in the uterus, curses by ancestors, witchcraft, evil spirit, and the deities were causes of infertility among Yuroba women in Nigeria.

4.6.2 Factors influencing marital satisfaction of infertile married individuals

From the quantitative data analysis, the results indicate that infertile married individuals are not sexually satisfied in their marriage. In addition, infertile married individuals are not satisfied with the way their spouses converse with them. The data

showed that infertile married individuals are not satisfied with the support from their spouses. Infertile married individuals are also not satisfied with conflict resolution in their marriages. The data analysis showed that infertile married individuals are not satisfied with the respect their spouses give to them. Infertile married individuals are not also satisfied with the financial support they receive from their partners.

The Qualitative data results indicate that participants from the interview were not satisfied with their marriages. Many of them expressed their dissatisfaction because of the condition of infertility, which has ruined their marital satisfaction. In conclusion, it is noted that the qualitative data is in line with the quantitative data because both respondents and participants were not satisfied with their marriage.

4.6.3 The effect of infertility on marital satisfaction

It is noted from the quantitative data that infertility had tremendous effects on marital satisfaction. From the data respondents' responses to some of the items in the questionnaire indicated that the phenomenon had a dire impact on their marriage. Some of the responses and their mean were as follows; (My spouse gets angry too frequently and beats me M=1.02), (I am fed up with my spouse M=1.09). In the same vein, participants share their views in the interview that support the e quantitative data. Some of the participants stated separation, infidelity, divorce, and lack of sexual fulfillment as some of the effects of infertility in their marriages.

In conclusion, it is confirmed that infertile married individuals' marital satisfaction is affected because of the childless situation. These findings support the earlier literature, which indicated that infertile married individuals' marriages would be affected. In the study of Anokye, et al., (2017), the authors indicated that social

rejection, verbal and physical violence, as well as divorce, were among the social effects of infertility.

4.6.4 The coping strategies of infertile married individuals

From the questionnaire, the respondents mentioned that they are fed up with the marriage. Others also stated that they would be happy moving out of their marriages. Some of the respondents mentioned withdrawal from arguments and excuses as their coping strategies. The qualitative results from the data suggest an agreement with the quantitative results. Some of the participants in the interview revealed they either withdraw or isolate themselves from the home or public events. In conclusion, the data from both quantitative and qualitative confirmed the study conducted by Kyei, et al, (2022) which stated that the coping strategy couples used were escape avoidance, which entails trying to get away from or avoid a stressful situation while daydreaming about a potential solution.

4.7 Discussion of Findings

The results of the study were discussed in line with existing concepts and theories. The discussions were also done in relation to the specific objectives of the study.

4.7.1 Perceived causes of infertility

The data analysis shows that majority of the respondents indicate that Previous abortion causes infertility in women. Majority are of the view that blockage of the fallopian tube causes infertility in women. It is revealed that majority of the married individuals perceived low sperm count as one of the causes of infertility in men. The data again indicated that curses from the fetish/gods cause infertility among married individuals. Many of the respondents perceived witchcraft as causes of infertility

among both men and women. Infertile married individuals perceived evil spirits as causes of infertility in both men and women. The study's data analysis revealed that many married individuals perceived breaking a taboo in the community causes infertility. Finally, it has emerged that excessive intake of alcohol causes married individuals to be infertile, whilst previous use of contraceptives causes infertility in women. The explanation was that respondents see infertility as both biological and spiritual because of their background as Christians.

On the other hand, a small number of the respondents do not perceive the following as a cause of infertility among married individuals. For example: past promiscuous life, Also, respondents of this study did not perceive excessive smoking, influence of personality traits, strain family relation, sexual disorders, and endocrine mechanism affected by stress as major causes infertility among married individuals in Korle Klottey Municipality.

The findings from the results are consistent with following studies conducted previously by some researchers: Koster-Oyekan, (1999) titled, Infertility among Yoruba Women's Perceptions on causes, treatments, and consequences. In this, study the author mentioned that induced abortion, fibroid in the uterus, curses by ancestors, witchcraft, and evil spirit, and the deities' causes of infertility among Yuroba women in Nigeria. Also, the current findings resonate with the study of Tabong and Adongo, 2013. In their study of "Understanding the social meaning of infertility and childbearing in Northern Ghana", they maintained that watery sperm, curses, excessive smoking, excessive intake of alcohol and breaking of the marital vow (taboo) could result in infertility among couples. In addition, reported that low-quality eggs could cause infertility in women, a blocked fallopian tube that prevents the egg and sperm from fusing, or abnormal ovulation that could occasionally lead to irregular

menstruation cycles. Again, the findings are consistent with the study of Ofosu-Budu, & Hänninen (2021), maintained that infertile married individuals occasionally turned to blame infertility on supernatural causes, such as curses and witchcraft. The findings resonate with the study of Atang 2016 which concluded that some participants in Aowin in Ghana and the Ndemu of Zambia perceived the causes of infertility to be that witchcraft and curses from the ancestors. In the study of Rasak and Oladipo, (2017) low sperm count, and blockage of the tubes that transport sperm, were the most common causes of infertility in men.

4.7. 2. The extent to which infertile married individuals satisfied in their marriages

The dynamic goal theory of marital satisfaction emphasizes the importance of achieving marital goals for satisfaction. Marital goals can be divided into friendship, personal growth, and instrumental goals. Companionship goals focus on intimacy and belonging, personal growth goals on self-realization, and instrumental goals on the effectiveness of the marriage. Social communication, sexual fulfilment, respect for one another, conflict resolution, financial support, and social support are essential for reaching marital satisfaction. This was the goal of every married individual for a successful marital journey. However, the data revealed that most of the respondents were not sexually satisfied in their marriages. It was noted that respondents were not satisfied with the way their spouses communicate with them. The data showed that infertile married individuals were not satisfied with the support they get from their spouses. They were also not satisfied with their spousal conflict resolution in their marriages. The data analysis showed that infertile married individuals are not satisfied with the respect their spouses give to them. Infertile married individuals are not also satisfied with the financial support they receive from their partners. The possible

explanation to these findings was that, respondents were overwhelmed by the negative impact of infertility and the lack of understanding of the phenomenon. The above findings were confirmed by the qualitative results. The findings were consisted with the findings of Khezri, et al, (2020), which stated that lack of respect increases the chance of feeling resentful, frustrated, and unsatisfied with the partner and the marriage. On the other hand, the findings do not support the following studies. First, the findings were not in line with the study of Haris and Kumar 2018, which mentioned that communication is essential to a happy marriage, and effective communication skills are the main indicators of marital satisfaction. Second, the findings did not confirm the study of Renanita and Lukito Setiawan, 2018, which maintained that sexual satisfaction positively correlates with total marital satisfaction. The findings were do not resonate with the study of Bahnaru, Runcan, and Runcan, (2019), which stated that elements that contribute to marital satisfaction include the quality of time spent together, ideal problem-solving techniques, and conflict management abilities. But this study's findings were contrarily to the abovementioned study.

4.7.3 The effect of infertility on marital satisfaction

The bio-psycho-social model recognizes the important role social, psychological, and biological factors play in maintaining physical health among married individuals. Infertility is not just a medical issue; it also involves psychological challenges such as stress, sadness, and anxiety, as well as social issues like stigmatization, separation, divorce, infidelity, abuse and isolation. These abovementioned challenges emanated from infertility affect the marital satisfaction of married individuals. In view of this, the findings of this study were consistent with the bio-psych-social model because it was noted that some of the participants stated

marital separation, infidelity, divorce, and lack of sexual fulfillment, financial challenges, psychological issues such as depression, trauma, stress and anxiety. Therefore, the findings support the following studies; According to Rasak and Oladipo, (2017) infertile married individuals experiencing a higher level of negative emotional and social rejection. Also, the study's findings were consistent with Obiyo, (2016) which claimed that infertility has a substantial impact on marriage and it is the source of stress for the married individuals. Anokye, Acheampong, Mprah, Ope and Barivure, (2017) posited that infertility brings about emotional reactions in both men and women, including despair, anxiety, guilt, social isolation, and low self-esteem. In addition, infertile married individuals experience social rejection, verbal and physical violence, and divorce. The findings agreed with Polis, et al, (2020) that infertile married individuals suffer from significant social, medical, and financial consequences, including isolation from society, mental anguish, diminished sex satisfaction, marital instability, increased polygamy, strained relationships, and a lack of access to status and income. Anokye, et al, (2017) maintained that, most infertile married individuals engaged in multiple sexual relationship in order to demonstrate their fertility. Finally, this study's findings resonate with Nyarko and Amu (2015), in their study posited that the marital relationships of the infertile married individuals who visited the public health institution are negatively impacted because of the financial burden. They maintained that infertility has a negative impact on the participants' sexual lives, marital communication, and psychological well-being.

4.7.4 Coping Strategies of infertile married individuals

The Systemic Transactional Model (STM) focused on coping strategies in married individuals dealing with stressors. The model highlighted the importance of married individuals' coping mechanisms, as well as seeking help outside the

relationship when needed. Coping mechanisms such as problem-solving, seeking social support, avoidance, isolation, withdrawal and retreat into fantasy when dealing with stress. External stressors can impact stress reactivity and coping mechanisms in marriage, leading to conflict and reduced intimacy. Dyadic coping, where partners work together to deal with external stressors, is crucial for maintaining a healthy relationship. Overall, the model emphasized the importance of understanding and addressing stress and coping mechanisms in marital relationship among married individuals. In this study the findings resonate with the systemic transactional model (STM) of coping strategies because the findings revealed that participants in the interview indicated they cope with infertility by withdraw or isolate, avoidance, social isolation, spiritual support and family encourage themselves from the home or public events. These findings confirmed the studies of Kyei, et al, (2022) that stated that coping strategies married individuals used were escape avoidance, which entails trying to get away from or avoid a stressful situation while thinking about a potential solution. Also, Yilmaz, & Oskay, (2017) maintained that women use active avoidance, active confrontation, and passive avoidance as coping strategies. In addition, Sormunen, Aanesen, Fossum, Karlgren, & Westerbotn (2018), observed that women with primary infertility adopted effective coping strategies such as turning to work as a diversion. Studies suggest that helping others and spending time with children help infertile married individuals to cope with their situation. Halkola, Koivula, and Aho (2022) posited that social isolation, avoiding children and uncomfortable events including leaving situations when children are discussed, and diverting attention to other issues are some of the coping strategies used by infertile married individuals. Finally, Oti-Boadi, and Oppong, (2017), noted that the lives of infertile women in Ghana seem to be significantly influenced by their religious beliefs as coping strategy.

Hudson and colleagues (Hudson, 2009; Culley *et al.*, 2009), the authors found that religion plays a crucial role in coping with infertility. They note that praying, fasting, going on pilgrimages, and other religious rituals were frequently mentioned as processes that may help with reproductive success.

4.7.5 Infertility as a predictor of marital satisfaction

The research hypothesis is to test if infertility can predict marital satisfaction of married individuals in Korle Klottey Municipality. The results indicated that the R² = .576 means that simple linear regression accounts for 57.6% of the variance in infertility. In view of this, the alternative hypothesis which stated that, "infertility will statistically significantly predict marital satisfaction of married individuals" is accepted but the Null Hypothesis is rejected. The findings of this study were consistent with the studies of Turan, & Oktay, (2014) and Amiri, Sadeqi, Hoseinpoor, & Khosravi, (2016) stated that there were negative effects of infertility on marital satisfaction because it exerts negative effects on physical and mental health that led to marital problems.

4.7.6 Comparison of marital satisfaction of infertile young and old married individuals

From the data analysis, it is revealed that young infertile married individuals had a marital satisfaction level of 2.23 whilst the old infertile married individuals had marital satisfaction level of 2.32. These scores fell within the score band of 1.6 - 2.5 which is interpreted as not satisfied. This revealed that young and old married individuals in terms of age were not satisfied with their marriages. The findings of

this study spport the study findings of Pasha, Basirat, Esmailzadeh, Faramarzi, and Adibrad, (2017), that there is no significant relationship between marital satisfaction in infertile women and various factors such as age, education level, economic status. However, the findings were not consistent with the study of Kapısız, Gök, Yilmaz, Özcan and Duyan, 2019 who stated that increase in the age of the women and men the increase in marital satisfaction. Finally, the findings were not in line with Khezri, Hassan and Nordin, (2020) avers that age at the time of marriage is the best predictor of marital satisfaction.

4.7.7 Comparison of marital satisfaction of infertile male and female

It is observed that the result of the t-test revealed that there was no statistically significant gender difference in term of marital satisfaction among infertile married individuals. The results show that there was no difference between the two groups mean (male = 2.53, female=2.46) in terms of marital satisfaction. Therefore, male and female infertile married individuals experience the same level of marital dissatisfaction in Korle Klottey Municipality. The findings were not in support of Rhodes, (2019) who revealed that men were less likely to exhibit psychiatric symptoms related to infertility. Also, the fin Women are more likely to experience a physical impact from infertility than men (Tüzer, Tuncel, Göka, Bulut, Yüksel, Atan, & Göka, 2010). The findings do not agree with Greil, et al, (2018) who avers that men have greater relationship satisfaction than women, and many research work have supported this assertion (Greil, et al, 2018).

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This current chapter focused on the summary of findings, conclusions, implications, and suggestions. In this chapter, the most vital findings from the data are highlighted and counselling implications are stated.

5.1 Summary

This study sort to find out how infertility affect the marital satisfaction of infertile married individuals and how they cope with the situation in Korle Klottey Municipality. To do this the researcher used Marital Satisfaction Inventory (MSI), which was adopted from Essuman (2010) and an adapted questionnaire on perceived causes of infertility to solicit views of married individuals concerning marital satisfaction. The researcher used Means, Standard Deviations. Simple Linear Regression and independent sample t-test with the help of the SPSS V. 23 to analyze the data to answer the quantitative research questions one and two respectively. A total of two hundred and seventy-one (271) respondents were selected for the study.

The second phase, which was qualitative was carried out using the semi-structured interview guide. This phase made use of 15 participants. The participants' interview was recorded with their consent and transcription was made using the Microsoft Office Online transcription tools. The identified themes were coded manually. The researcher duly considered all protocols and confidentiality issues. The data generated was used to answer the qualitative research questions three and four as stated in this study.

5.2 The Summary of Key Findings of the Study

- It was found from the study that infertility was perceived to be caused by Medical (abortion, low sperm count, etc.) Supernatural (curses, evil spirits, etc.), Cultural (breaking taboos), Biological (sexual cycle disorders) and Psychological (stress, trauma, anxiety, depression, anxiety, etc.)
- 2. The study found that both quantitative and qualitative results showed that respondents and participants were not satisfied with their marriages. Many of them expressed their dissatisfaction because of the condition of infertility, which has ruined their marital satisfaction.
- 3. The results indicated that infertility has affected majority of the married individuals' marriages. Some of the effects are poor communication among the couples, infidelity, divorce, separation, lack of sexual fulfilment, lack of partner support such as physical, emotional, social and financial.
- 4. It was found that the infertile married individuals adopted coping strategies such as social isolation, avoidance, religious activities, withdrawal to navigate the tremendous impact of infertility in their marital journey.

The major findings from the study's hypotheses were:

- There was statistically significant prediction of infertility on marital satisfaction of infertile married individuals. Infertility led to marital dissatisfaction of respondents.
- 2. There was no statistically significant difference between infertile young and old married individuals in terms their level of marital satisfaction.
- 3. There was no statistically significant difference between male and female respondents in terms of the level of their marital satisfaction. In this wise, there was no gender differences among married individuals.

5.3 Conclusions

First and foremost, it is evident that infertility has a wide range of intricate challenges on married individuals' marital satisfaction such as biological, psychological, social and spiritual. The bio-psycho-social model, the systemic transactional model and Dynamic goal theory had confirmed there is a relationship between infertility and marital satisfaction.

ESecondly, the findings suggest that infertile married individuals perceive causes of infertility as biological, psychological and spiritual.

Thirdly, it is found out that majority of the married individuals were not satisfied with their marriages because of the challenges of infertility.

Fourthly, the findings reveal that majority of the married individuals experienced divorce, infidelity, separation, depression, trauma, abuse and anxiety due the negative effects of infertility.

Fifthly, the findings indicate that there is no difference between infertile young and old married individuals in terms of their level of marital satisfaction.

Sixthly, the study's findings suggest that there is no difference between infertile male and female married individuals in terms of their level of marital satisfaction.

5.4 Implication for Counselling

The study has affirmed some findings, which have implications for counselors.

These implications were as follows:

 Majority of the married individuals perceived the causes of infertility as biological, psychological and spiritual. In view of these, Christian counsellors and counselling psychologists should team up and assist these individuals in Korle Klottey Municipality.

- 2. It is a troubling issue to know that infertile married individuals were dissatisfied in their marriages. They go through a lot challenges such as divorce, separation, abuse, depression, trauma, infidelity and stress. These aforementioned issues call for the support of counsellors to embark on periodic counselling sessions for these individuals in Korle Klottey Municipality.
- 3. From the study, it is deduced married individuals experience stigmatization, labelling and social isolation. This implies that counsellors and psychologists should take ken interest in the affairs of infertile married individuals in Korle Klottey Municipality.
- 4. The study's conclusion suggests that there is much more work for counsellors especially in the area of premarital and marital counselling for the people in the Municipality.

5.5 Recommendations

- 1. Religious leaders should use the word of God to teach the members to embrace religious beliefs and traditions that would deepen their faith and help them to cope with the situation while waiting upon God.
- Counselling psychologists and clinical counselors should provide professional counselling to infertile married individuals to deal with the stresses, depression, anxieties, trauma, and abuses, divorce, infidelity, and separation problems.
- 3. The health care professionals should collaborate with counselling psychologists in the Municipality to provide appropriate therapy for infertile married individuals who are distressed while receiving medical treatment.

- 4. The general government, Health Authorities, and Religious Leaders should embark on sensitization programs to educate the public, the churches, Muslim communities, and schools about the causes, effects, and possible solutions of infertility.
- 5. It is hoped that if the above recommendations were carried out, it would go a long way to reduce the divorce rate, infidelity, and separation in Korle Klottey Municipality. In addition, the people in the Municipality would understand the causes, effects, and solutions of infertility. This would help reduce the stigmatization meted out to married individuals in the Municipality. The challenges facing infertile married individuals such as stress, depression, trauma, anxiety and abuse would be addressed during the counselling session and sensitization programs. This help married individuals to be relieved of these health-pone problems. Finally, it would reduce social isolation among infertile married individuals in the Korle Klottey Municipality and these would help improve marital satisfaction.

5.6 Contributions to Further Knowledge

The results of this study are generally informative and meaningful to the research. The findings of the present study have several theoretical implications.

Firstly, the research has been able to add to the theories through the findings showing that the theoretical framework for this research is the bio-psycho-social model, the system interaction model and the motivational goal theory of marital satisfaction. The bio-psycho-social model suggests that infertility is not just a health problem. But it includes psychological challenges such as stress, depression and anxiety as well as social problems such as stress, separation, divorce, cheating, abuse and isolation. The systematic transactional model emphasized the importance of married couples

working together and seeking help outside of the relationship when needed. A robust measure of marital satisfaction emphasized the importance of achieving marital goals for marital satisfaction. These theories are important to this study because they provide a basis for understanding infertility and its negative effects on marital satisfaction and the coping strategies employed by married individuals.

Secondly, it is worth noting that this study shows that methodologically, most studies delt with quantitative and qualitative methodologies. (Asante-Afari, Doku, and Darteh, 2022, Ofosu-Budu, and Hänninen, 2021, Tabong, & Adongo, (2013), Dabone, 2012 and Bentil, 2021). However, this current study made use of sequential explanatory mixed method design.

Thirdly, the contribution made by this current study is the use of the methods and designs selected. Both quantitative and qualitative methods are used in this study. The quantitative method allowed the researcher to analyzed the data collected numerically. This type of data collection and analysis is a solid foundation for accurate measurements and results. By using quantitative methods, this study can be easily replicated by future researchers in counselling psychology. The data collected can be compared to similar studies using quantitative methods. In addition, the qualitative approach also provided a deeper understanding of infertility problems among married individuals in the Korle Klottey Municipality. Finally, this study tested the four criteria using infertile married individuals as a sample.

5.7 Suggestions for Future Research

1. This study was done in Korle Klottey Municipality; therefore, the researcher suggested that further study be carried out in other Municipalities in Accra and other Regions to compare the findings to be able to draw conclusions.

- In addition, the researcher recommend that a study should be conducted on the topic "Lived experiences of infertile couples: Qualitative Analysis" in the Greater Accra Region.
- 3. Finally, the researcher propose that a study should be conducted among infertile Muslim area in other Municipalities in Ghana.



REFERENCES

- Abbey, S. (1991). On the Evaluation of Rock Reference Materials-A "Five-Mode' Approach. Geostandards Newsletter, 15(1), 3-12.
- Abdul-Saheb, T. M., Burhan, S. A., & Hamza, N. A. (2021). The ratio of Male to Female Infertility in Baghdad Al-Karkh (2015-2020). *Ratio*, 44(05).
- Abiona, A. O. (2015). Knowledge and Perception of Married Men Towards Infertility and Its Management in Ede North Local Government Osun State, Nigeria (Doctoral dissertation).
- Agarwal, A., Mulgund, A., Hamada, A., & Chyatte, M. R. (2015). A unique view on male infertility around the globe. *Reproductive Biology and Endocrinology*, *13*(1), 1-9.
- Aghanwa, H. S., Dare, F. O., & Ogunniyi, S. O. (1999). Sociodemographic factors in mental disorders associated with infertility in Nigeria. *Journal of psychosomatic research*, 46(2), 117-123.
- Alhassan, A., Ziblim, A. R., & Muntaka, S. (2014). A survey on depression among infertile women in Ghana. *BMC women's health*, *14*(1), 1-6.
- Ali, S., Sophie, R., & Imam, A. M. (2011). I Khan, F.; Ali, SF; Shaikh, A.; Farid-Ul-Hasnain, S. Knowledge, perceptions, and myths regarding infertility among selected adult population in Pakistan: A cross-sectional study. *BMC Public Health*, 11, 760.
- Alvi, M. (2016). A manual for selecting sampling techniques in research.
- Amiri, M., Sadeqi, Z., Hoseinpoor, M. H., & Khosravi, A. (2016). Marital satisfaction and its influencing factors in fertile and infertile women. *Journal of family & reproductive health*, 10(3), 139.
- Arhin, S. M., Mensah, K. B., Agbeno, E., Badii, V. S., & Ansah, C. (2019). Pharmacotherapy of infertility in Ghana: retrospective study at the cape coast teaching hospital. Journal of Pharmaceutical Policy and Practice, 12, 1-10.
- Atang, N. C. (2016). Involuntary infertility: An interpretative phenomenological analysis of black women's experiences in Luton.
- Azize Diallo, A., Anku, P. J., & Darkoa Oduro, R. A. (2024). Exploring the psychosocial burden of infertility: Perspectives of infertile couples in Cape Coast, Ghana. Plos one, 19(1), e0297428.
- Bali, A., Dhingra, R., & Baru, A. (2010). Marital adjustment of infertile married individuals. *Journal of Social Sciences*, 24(1), 73-76

- Bassey, I. A. E., Isiwele, E. M., Omotoso, A., Ushie, E. D., & Ekwere, P. D. (2018). Knowledge, perceptions and attitudes towards male infertility: a cross-sectional survey in a tertiary institution in south-southern Nigeria. *Age*, 20, 21-30.
- Bentil, J. A. (2021). *Marital Satisfaction among Spouses in Inter-and Intra-Ethnic Marriages in the Kumasi Metropolis, Ghana* (Doctoral dissertation, University of Cape Coast).
- Bhardwaj P. (2019). Types of sampling in research. *Journal of the Practice of Cardiovascular Science*, 5(3), 157. POI:10.4103/jpcs_62_19
- Bokaie, M., Simbar, M., & Ardekani, S. M. Y. (2015). Sexual behavior of infertile women: a qualitative study. *Iranian journal of reproductive medicine*, 13(10), 645.
- Brady, A. M., & Byrne, G. (2016). An overview of mixed methods research—revisited. *Journal of research in nursing*, 21(8), 623-635.
- Brand, H. J. (1989). The influence of sex differences on the acceptance of infertility. Journal of reproductive and infant psychology, 7(2), 129-131.
- Brown, G.W., & Harris, T. (Eds.). (1978). Social Origins of Depression: A study of psychiatric disorder in women (1st ed.). Routledge.
- Callan, V. J. (1987). The personal and marital adjustment of mothers and of voluntarily and involuntarily childless wives. *Journal of Marriage and the Family*, 847-856.
- Cervi, L., & Knights, D. (2022). Organizing male infertility: Masculinities and fertility treatment. Gender, Work & Organization.
- Chaffe, M. (2017). *Untenanted lives involuntary infertility in nineteenth-century America* (Doctoral dissertation, University of East Anglia).
- Clarke, V., & Braun, V. (2017). Thematic analysis. *The journal of positive psychology*, 12(3), 297-298
- Conroy, M. (2010). A qualitative study of the psychological impact of unemployment on individuals. *Dublin, Ireland: Dublin Institute of Technology*, 1-65.
- Corley-Newman, A. (2017). The relationship between infertility, infertility treatment, psychological interventions, and posttraumatic stress disorder.
- Cox, C. M., Thoma, M. E., Tchangalova, N., Mburu, G., Bornstein, M. J., Johnson, C. L., & Kiarie, J. (2022). Infertility prevalence and the methods of estimation

- from 1990 to 2021: a systematic review and meta-analysis. Human Reproduction Open, 2022(4), hoac051.
- Creswell, J. W. (2014). *Qualitative, quantitative and mixed methods approach.* Sage. Doyle, L.
- Creswell, J. W., & Creswell, J. D. (2017). Research design: Qualitative, quantitative, and mixed methods approach. Sage publications.
- Creswell, J. W., & Plano-Clark, V. L. (2011). *Designing and conducting mixed methods research* (2nd ed.). Thousand Oaks, CA: SAGE Publications, Inc.
- Creswell, J. W., Plano Clark, V. L., Gutmann, M. L., & Hanson, W. E. (2003). Advanced mixed methods research designs. Handbook of mixed methods in social and behavioral research, 209(240), 209-240.
- Dabone, K. T. (2012). *Marital satisfaction among married people in Sunyani municipality* (Doctoral dissertation, university of cape coast).
- Dabone, K. T., Essuman, J. K., & Nyarko-Sampson, E. (2018). Family System Theory as a Counselling Strategy for Improving Marital Satisfaction Among Ghanaian Couples: Implications for Counselling.
- Daniluk, J. C. (1996). When treatment fails: The transition to biological infertility for infertile women. Women & Therapy, 19(2), 81-98.
- Dawadi, S., Shrestha, S., & Giri, R. A. (2021). Mixed-methods research: A discussion on its types, challenges, and criticisms. *Online Submission*, 2(2), 25-36.
- Denga, D. I. (1982). Infertility and marital adjustment in Northern Nigeria. Journal of Marriage and the Family, 799-802.
- Denzin, N. K. (1989). Interpretive biography (Vol. 17). Sage.
- Donkor, E. S. (2008). Socio-cultural perceptions of infertility in Ghana. *Africa Journal of Nursing and Midwifery*, 10(1), 22-34.
- Donkor, E. S., & Sandall, J. (2007). The impact of perceived stigma and mediating social factors on infertility-related stress among women seeking infertility treatment in Southern Ghana. *Social science & medicine*, 65(8), 1683-1694.
- Doyle, L., Brady, A. M., & Byrne, G. (2009). An overview of mixed methods research. *Journal of research in nursing*, 14(2), 175-185.
- Du Plessis, P., & Majam, T. (2010). Mixed method research—a new paradigm. *Journal of public administration*, 45(3-1), 456-472.

- Dzadey, G. A. (2015). Psychosocial Factors of Marital Satisfaction: A Study in Selected Congregations of the Ho East Presbytery of EP Church, Ghana (Doctoral dissertation, University of Ghana).
- Enosh, G., Tzafrir, S. S., & Stolovy, T. (2014). The development of client violence questionnaire (CVQ). *Journal of Mixed Methods Research*, 9(3), 273–290.
- Etikan, I., & Bala, K. (2017). Sampling and sampling methods. *Biometrics & Biostatistics International Journal*, 5(6), 00149.
- Etikan, I., Alkassim, R., & Abubakar, S. (2016). Comparison of snowball sampling and sequential sampling technique. *Biometrics and Biostatistics International Journal*, 3(1), 55.
- Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American journal of theoretical and applied statistics*, 5(1), 1-4.
- Faulkner, R. A., Davey, M., & Davey, A. (2005). Gender-related predictors of change in marital satisfaction and marital conflict. *The American Journal of Family Therapy*, 33(1), 61-83.
- Ferreira, M., Antunes, L., Duarte, J., & Chaves, C. (2015). Influence of infertility and fertility adjustment on marital satisfaction. Procedia-Social and Behavioral Sciences, 171, 96-103.
- Ferreira, M., Antunes, L., Duarte, J., & Chaves, C. (2015). Influence of infertility and fertility adjustment on marital satisfaction. Procedia-Social and Behavioral Sciences, 171, 96-103.
- Fetters, M. D. (2016). Haven't we always been doing mixed methods research? Lessons learned from the development of the horseless carriage. *Journal of Mixed Methods Research*, 10(1), 3–11.
- Fetters, M. D., Curry, L. A., & Creswell, J. W. (2013). Achieving integration in mixed methods designs—principles and practices. *Health services research*, 48(6pt2), 2134-2156.
- Fielding, N. G. (2012). Triangulation and Mixed Methods Designs: Data Integration with New Research Technologies. *Journal of Mixed Methods Research*, 6(2), 124–136.
- Fieldsend, M. (2019). Facing and dealing with the challenge of involuntary infertility: an interpretative phenomenological analysis (Doctoral dissertation, Birkbeck, University of London).

- Flick, U. (2014). Challenges for qualitative inquiry as a global endeavor: Introduction to the special issue. *Qualitative Inquiry*, 20(9), 1059-1063.
- Flick, U. (Ed.). (2017). The Sage handbook of qualitative data collection. Sage.
- Gerrits, T. (2018). Reproductive travel to Ghana: Testimonies, transnational relationships, and stratified reproduction. *Medical anthropology*, *37*(2), 131-144.
- Gibson, D. M. (2000). The effect of social coping resources and growth-fostering relationships on infertility stress in women. The University Of North Carolina At Greensboro.
- Gleicher, N. (2018). Expected advances in human fertility treatments and their likely translational consequences. Journal of Translational Medicine, 16, 1-13.
- Gorra, A., & Kornilaki, M. (2010). Grounded theory: experiences of two studies with a focus on axial coding and the use of the NVivo qualitative analysis software. *Methodology: Innovative approaches to research*, 1, 30-32.
- Gottman, J. M., & Krokoff, L. J. (1989). Marital interaction and satisfaction: a longitudinal view. *Journal of consulting and clinical psychology*, *57*(1), 47.
- Gourounti, K., Anagnostopoulos, F., & Vaslamatzis, G. (2011). Psychometric properties and factor structure of the Fertility Problem Inventory in a sample of infertile women undergoing fertility treatment. *Midwifery*, 27(5), 660-667.
- Graham, J. M., Liu, Y. J., & Jeziorski, J. L. (2006). The dyadic adjustment scale: A reliability generalization meta-analysis. *Journal of Marriage and Family*, 68(3), 701-717.
- Greil, A. L., Leitko, T. A., & Porter, K. L. (1988). Infertility: His and hers. Gender & Society, 2(2), 172-199.
- Greil, A. L., Slauson-Blevins, K., McQuillan, J., Lowry, M. H., Burch, A. R., & Shreffler, K. M. (2018). Relationship satisfaction among infertile couples: Implications of gender and self-identification. *Journal of Family Issues*, *39*(5), 1304-1325.
- Guetterman, T. C., Fetters, M. D., & Creswell, J. W. (2015). Integrating quantitative and qualitative results in health science mixed methods research through joint displays. *The Annals of Family Medicine*, *13*(6), 554-561.
- Halkola, S. T., Koivula, M., & Aho, A. L. (2022). A qualitative study of the factors that help the coping of infertile women. *Nursing Open*, *9*(1), 299-308.

- Harris, DL, & Daniluk, JC (2010). The experience of spontaneous pregnancy loss for infertile women who have conceived through assisted reproduction technology. Human Reproduction, 25 (3), 714-720.
- Haseley, J. L. (2006). Marital satisfaction among newly married couples: Associations with religiosity and romantic attachment style.
- Hiadzi, R. A. (2014). Couples in Search of Children: A Study of Strategies and Management of Infertility in Contemporary Ghana (Doctoral dissertation, University of Ghana).
- Hollos, M., Larsen, U., Obono, O., & Whitehouse, B. (2009). The problem of infertility in high fertility populations: meanings, consequences and coping mechanisms in two Nigerian communities. *Social science & medicine*, 68(11), 2061-2068.
- Houseknecht, S. K. (1979). Infertility and marital adjustment. Journal of Marriage and the Family, 259-265.
- Huijts, T., Kraaykamp, G., & Subramanian, S. V. (2013). Infertility and psychological well-being in context: A multilevel study on 24 European countries. *European Sociological Review*, 29(1), 32-47.
- Hulings, M. (2013). Looking back and moving forward: A mixed methods study of elementary science teacher preparation. Oklahoma State University.
- Hultsch, D. F., MacDonald, S. W., Hunter, M. A., Maitland, S. B., & Dixon, R. A. (2002). Sampling and generalisability in developmental research: Comparison of random and convenience samples of older adults. *International Journal of Behavioral Development*, 26(4), 345-359.
- Imeson, M. (1995). A phenomenological study of infertility: the couple's perspective.
- Inhorn, M. C. (1994). *Quest for conception: gender, infertility and Egyptian medical traditions.* University of Pennsylvania Press.
- Iordăchescu, D. A., Paica, C. I., Boca, A. E., Gică, C., Panaitescu, A. M., Peltecu, G., ... & Gică, N. (2021, April). Anxiety, difficulties, and coping of infertile women. *In Healthcare* (Vol. 9, No. 4, p. 466). MDPI.
- Ivankova, N. V., Creswell, J. W., & Stick, S. L. (2006). Using mixed-methods sequential explanatory design: From theory to practice. *Field methods*, 18(1), 3-20.

- Jackson, E. (2013). Choosing a methodology: Philosophical underpinning. *Practitioner Research in Higher Education*, 7(1), 49-62.
- Jenkins, L., & Macadar, D. (2018). *Challenges posed by low fertility in Latin America and the Caribbean.*
- Johnson, E. (2021). Face Validity. In: Volkmar, F.R. (eds) *Encyclopedia of Autism Spectrum Disorders*. Springer, Cham. https://doi.org/10.1007/978-3-319-91280-6_308.
- Johnson, R. B., Onwuegbuzie, A. J., & Turner, L. A. (2007). Toward a definition of mixed methods research. *Journal of mixed methods research*, *I*(2), 112-133.
- Kapısız, S., Gök, F. A., YILMAZ, N., Özcan, S., & Duyan, V. (2019). Marital satisfaction and influencing factors in infertile couples. *Cukurova Medical Journal*, *44*(3), 1074-1084.
- Keshavarz, F., Mosalanejad, L., Ghavi, F., Abdollahifard, S., & Khodabakhshi Koolaee, A. (2018). Coping strategies and perceived stress in infertile couples. *Journal of Client-Centered Nursing Care*, 4(2), 80-87.
- Khandkar, S. H. (2009). Open coding. *University of Calgary*, 23, 2009.
- Khezri, Z., Hassan, S. A., & Nordin, M. H. M. (2020). Factors affecting marital satisfaction and marital communication among marital women: Literature of review. *International Journal of Academic Research in Business and Social Sciences*, 10(16), 220-236.
- Kielmann, K. (1998). Barren ground: contesting identities of infertile women in *Pemba, Tanzania*. Cambridge Studies in Medical Anthropology, 127-163.
- Kilbride, A. J. (2003). *The University of Hull* (Doctoral dissertation, University of Hull).
- Kim HJ, Shin HS. (2014) Validation of a Korean version of Fertility Problem Inventory. *Asian Nursing Research* 8(3): 207–212.
- Koster-Oyekan, W. (1999). Infertility among Yoruba women: Perceptions on causes, treatments and consequences. *African Journal of Reproductive Health*, *3*(1), 13-26.
- Kothari, C. R. (2004). Research methodology: Methods and techniques. New Age International.
- Kumar, M., & Singla, N. L. (2017). The practice of Surrogacy in India: A Ray of Hope for Infertile married individuals. *Asian Journal of Research in Social Sciences and Humanities*, 7(6), 92-105.

- Kussiwaah, D. Y., Donkor, E. S., & Naab, F. (2017). I am tired of being childless": Social experiences of women with infertility. *Asian Journal of Science and Technology*, 8(01), 4221-6.
- Kyei, J. M., Manu, A., Dwomoh, D., Kotoh, A. M., Agyabeng, K., & Ankomah, A. (2022). Ways of coping among women with infertility undergoing assisted reproductive technologies in Ghana. *The Pan African medical journal*, 41, 29.
- Kyei, J. M., Manu, A., Kotoh, A. M., Adjei, C. A., & Ankomah, A. (2021). Beliefs about children and the psychosocial implications of infertility on individuals seeking assisted fertilization in Ghana. *Reproductive biomedicine & society online*, 12, 88-95.
- Kyrgiafini, M. A., & Mamuris, Z. (2023). Male infertility: From genes to genomes 2022. *Genes*, 14(5), 959.
- Leiblum, S. R. (1993). The impact of infertility on sexual and marital satisfaction. Annual Review of Sex Research, 4(1), 99-120.
- Li, R., Cheung, A. K., & Liu, K. (2022). A corpus-based investigation of extratextual, connective, and emphasizing additions in English-Chinese conference interpreting. Frontiers in psychology, 13, 847735.
- Li, T., & Fung, H. H. (2011). The dynamic goal theory of marital satisfaction. *Review of General Psychology*, 15(3), 246-254.
- Lund, T. (2012). Combining qualitative and quantitative approaches: Some arguments for mixed methods research. *Scandinavian Journal of Educational Research*, 56(2), 155-165.
- Maillet, M. H. (2002). Infertility and marital adjustment: The influence of perception of social support, privacy preference and level of depression. Louisiana State University and Agricultural & Mechanical College.
- Masoumi S. Z, Poorolajal J, Keramat A, Moosavi S. A. Prevalence of Depression among Infertile Couples in Iran: AMeta-Analysis Study. *Iranian Journal of Public Health*. 2013;42(5):458.
- Maxwell, J. A. (2016). Expanding the history and range of mixed methods research. *Journal of Mixed Methods Research*, 10(1), 12–27.
- McGinley, D. M. (2009). Effects of career and marriage on newlywed individuals' marital and career satisfaction. University of Florida.
- Miall, C. E. (1986). The stigma of involuntary infertility. *Social problems*, *33*(4), 268-282.

- Moghaddam, A. (2006). Coding issues in grounded theory. *Issues in educational research*, 16(1), 52-66.
- Morgan, D. 1998. Practical strategies for combining qualitative and quantitative methods: Applications to health research. *Qualitative Health Research* 8:362–76.
- Morse, J. M. 1991. Approaches to qualitative-quantitative methodological triangulation. *Nursing Research* 40:120–23.
- Moura-Ramos M, Gameiro S, Canavarro MC, et al. (2012) Assessing infertility stress: Reexamining the factor structure of the Fertility Problem Inventory. *Human Reproduction* 27(2): 496–505.
- Ndlovu, J. N. (2013). Psychosocial predictors of marital satisfaction among married people in Gauteng province, South Africa (Doctoral dissertation).
- Newton, C. R., Sherrard, W., & Glavac, I. (1999). The Fertility Problem Inventory: measuring perceived infertility-related stress. *Fertility and sterility*, 72(1), 54-62.
- Nukunya, G. K. (1992). Tradition and change in Ghana: An introduction to sociology. (No Title).
- Obiyo, I. D. (2016). Impact of Infertility on Marriage. (A study of married couples in Lowa community, Imo State). *International Journal of Religious and Cultural Practice*, 2(1), 9-17.
- Ofosu-Budu, D., & Hanninen, V. (2020). Living as an infertile woman: the case of southern and northern Ghana. *Reproductive health*, 17(1), 1-9.
- Ofosu-Budu, D., & Hänninen, V. (2021). Ways of reducing the stigma of infertility: Views of infertile women and their herbalists. *African Journal of Reproductive Health*, 25(2), 110-119.
- Ogunlaja, O. A., Bakare, Y. T., Bobo, T. I., Idowu, A., Ogunlaja, I. P., Abiola, O. O., ... & Olasinde, Y. T. (2022). Seminal Fluid Profile of Male Partners of Infertile Couples at Bowen University Teaching Hospital. *Ogbomoso: A Three-Year Review BJMLS*, 7(1), 22-31.
- Ogunlaja, O. A., Bakare, Y. T., Bobo, T. I., Idowu, A., Ogunlaja, I. P., Abiola, O. O., ... & Olasinde, Y. T. (2022). Seminal Fluid Profile of Male Partners of Infertile Couples at Bowen University Teaching Hospital. *Ogbomoso: A Three-Year Review BJMLS*, 7(1), 22-31.

- Okere, R. O., & Ubani, S. N. (2020). The rapid increase of infidelity among married women in Nigeria-causes and effects: Implication for counselling. *European Journal of Education Studies*, 7(10).
- Oluwole, E. O., Fakayode, D. O., Olufela, E. O., Akinsola, O. J., & Ojo, O. Y. (2021). Knowledge and perception of infertility among adult males in Ibadan, Nigeria. *Annals of Ibadan Postgraduate Medicine*, 19(2), 131-139.
- Ombelet, W. (2020). WHO fact sheet on infertility gives hope to millions of infertile couples worldwide. Facts, views & vision in ObGyn, 12(4), 249.
- Oppong, S. H. (2013). The problem of sampling in qualitative research. *Asian journal of management sciences and education*, 2(2), 202-210.
- Osei, N. Y. (2014). Association of infertile married individuals of Ghana (ACCOG). Facts, views & vision in ObGyn, 6(2), 99.
- Othman, S., Steen, M., & Fleet, J. (2020). A sequential explanatory mixed methods study design: An example of how to integrate data in a midwifery research project. *Journal of Nursing Education and Practice*, 11(2), 75-89.
- Oti-Boadi, M., & Oppong Asante, K. (2017). Psychological health and religious coping of Ghanaian women with infertility. *Bio Psychl Social Medicine*, 11(1), 1-7.
- Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2015). Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. Administration and policy in mental health and mental health services research, 42(5), 533-544.
- Pasch, L. A., Dunkel-Schetter, C., & Christensen, A. (2002). Differences between husbands' and wives' approach to infertility affect marital communication and adjustment. Fertility and sterility, 77(6), 1241-1247.
- Pasha, H., Basirat, Z., Esmailzadeh, S., Faramarzi, M., & Adibrad, H. (2017). Marital intimacy and predictive factors among infertile women in northern Iran. *Journal of clinical and diagnostic research: JCDR*, 11(5), QC13.
- Patnani, M., Takwin, B., & Dahlan, W. W. (2020) The Lived Experience of Involuntary Childless in Indonesia: Phenomenological Analysis.
- Peng, T. (2012). *Infertility and marital well-being among infertile, Chinese couples from Hei Longjiang Province in China* (Doctoral dissertation, Curtin University).
- Peng, T., Coates, R., Merriman, G., Zhao, Y., & Maycock, B. (2011). Testing the psychometric properties of Mandarin version of the fertility problem

- inventory (M-FPI) in an infertile Chinese sample. Journal of Psychosomatic Obstetrics & Gynecology, 32(4), 173-181.
- Plano Clark, V. L. & Ivankova, N. V. (2016). *Mixed methods research. A guide to the field.* Sage Publications.
- Poth, C., & Munce, S. E. P. (2020). Commentary—Preparing today's researchers for a yet unknown tomorrow: Promising practices for a synergistic and sustainable mentoring approach to mixed methods research learning. *International Journal of Multiple Research Approaches*, 12(1), 56-64.
- Pozzi, E., Boeri, L., Candela, L., Capogrosso, P., Cazzaniga, W., Fallara, G., ... & Salonia, A. (2021). Do infertile couples still undergo assisted reproductive treatments without initial andrological evaluation in the real-life setting: A failure to adhere to guidelines? *Andrology*, 9(6), 1843-1852.
- Qadir, F., Khalid, A., & Medhin, G. (2015). Social support, marital adjustment, and psychological distress among women with primary infertility in Pakistan. Women & health, 55(4), 432-446.
- Quashie, N., & Andrade, F. (2017, April). Later-Life Infertility and Depression in Latin America and the Caribbean, In *PAA 2017 Annual Meeting*. PAA.
- Razeghi-Nasrabad, H. B., Abbasi-Shavazi, M. J., & Moeinifar, M. (2020). Are we facing a dramatic increase in voluntary and involuntary infertility in Iran that leads to lower fertility? *Crescent Journal of Medical and Biological Sciences*, 7(2), 212-9.
- Rhodes, R. (2019). Women, motherhood, and infertility: The social and historical context. In Infertility and Adoption (pp. 5-20). Routledge.
- Roberts, J. A., Hann, I. H., & Slaughter, S. A. (2006). Understanding the motivations, participation, and performance of open-source software developers: A longitudinal study of the Apache projects. *Management science*, 52(7), 984-999.
- Rostami, A. (2013). Marital satisfaction in relation to social support, coping, and quality of life in medical staff in Tehran, Iran (Doctoral dissertation, Umeå university).
- Rowland, D. T. (2007). Historical trends in infertility. *Journal of family Issues*, 28(10), 1311-1337.
- Samadaee-Gelehkolaee, K., McCarthy, B. W., Khalilian, A., Hamzehgardeshi, Z., Peyvandi, S., Elyasi, F., & Shahidi, M. (2016). Factors associated with marital satisfaction in infertile couple: A comprehensive literature review. Global journal of health science, 8(5), 96.

- Samadaee-Gelehkolaee, K., McCarthy, B. W., Khalilian, A., Hamzehgardeshi, Z., Peyvandi, S., Elyasi, F., & Shahidi, M. (2015). Factors Associated with Marital Satisfaction in Infertile Couple: A Comprehensive Literature Review. *Global journal of health science*, 8(5), 96–109.
- Sandelowski, M. (2000). Whatever happened to qualitative description? Research in nursing & health, 23(4), 334-340.
- Schmidt L: Social and psychological consequences of infertility and assisted reproduction: what are the research priorities? *Hum Fertil 2009*, *12(1)*:14–20.
- Schmitt, M., Kliegel, M., & Shapiro, A. (2007). Marital interaction in middle and old age: A predictor of marital satisfaction. *The International Journal of Aging and Human Development*, 65(4), 283-300.
- Semple, D., & Smyth, R. (2019). *Oxford Handbook of Psychiatry*. Oxford: Oxford university press.
- Shannon-Baker, P. (2016). Making paradigms meaningful in mixed methods research. *Journal of Mixed Methods Research*, 10(4), 319-334.
- Shorten A., & Smith J. (2017). Mixed methods research: Expanding the evidence base. *Evidence Based Nurs*, 20, 74–5.
- Singh, K., & Dewani, D. (2022). Recent advancements in in vitro fertilisation. Cureus, 14(10).
- Sireci, S. G. (1998). The construct of content validity. *Social Indicators Research*, 83-117.
- Sormunen, T., Aanesen, A., Fossum, B., Karlgren, K., & Westerbotn, M. (2018). Infertility-related communication and coping strategies among women affected by primary or secondary infertility. *Journal of Clinical Nursing*, 27(1-2), e335-e344.
- Sultan S, Tahir A. Phychological consequences on infertility. Hellenic Journal of Psychology. 2011; 8
- Sun, Y. (2023). Articles in the field of infertility (2013–2022): a bibliometric analysis. *Journal of Assisted Reproduction and Genetics*, 40(12), 2871-2877.
- Tabatabaee, A., Fallahi, A., Shakeri, B., Baghi, V., & Ghanei Gheshlagh, R. (2022). Marital satisfaction in Iranian infertile women: A systematic review and meta-analysis. *Frontiers in public health*, *10*, 1027005.

- Tabong, P. T. N., & Adongo, P. B. (2013). Infertility and infertility: a qualitative study of the experiences of infertile couples in Northern Ghana. *BMC Pregnancy and Childbirth*, 13(1), 1-10.
- Tabong, P. T. N., & Adongo, P. B. (2013). Understanding the social meaning of infertility and childbearing: a qualitative study of the perception of childbearing and infertility in Northern Ghana. *PloS one*, 8(1), e54429.
- Taebi, M., Kariman, N., Montazeri, A., & Majd, H. A. (2021). Infertility stigma: A qualitative study on feelings and experiences of infertile women. International journal of fertility & sterility, 15(3), 189.
- Tashakkori, A., & C. Teddlie. (1998). *Mixed methodology: Combining qualitative and quantitative approaches. Applied Social Research Methods Series, vol. 46.*Thousand Oaks, CA: Sage.
- Teddlie, C. &Tashakkori A. (1998). *Mixed methodology: Combining qualitative and quantitative approaches. Applied Social Research Methods Series, vol.* 209–40. Thousand Oaks, CA: Sage.
- Tenuche, B. S. (2018). A mixed-method approach to investigate individual behaviour in online health communities (Doctoral dissertation, Brunel University London).
- Thomas Agyemang, Samuel Agyemang, John Richmond Sekyi, (2020), Perception of Marital Satisfaction among Couples in the Asante Akim North Area, International Journal of Scientific Research and Management (IJSRM) ||Volume||08||Issue||07||Pages||EL-2020-1454-1480||2020||
- Turan, V., & Oktay, K. (2014). Sexual and fertility adverse effects associated with chemotherapy treatment in women. *Expert opinion on drug safety*, 13(6), 775-783.
- Tüzer, V., Tuncel, A., Göka, S., Bulut, S. D., Yüksel, F. V., Atan, A., & Göka, E. (2010). Marital adjustment and emotional symptoms in infertile couples: gender differences. Turkish Journal of Medical Sciences, 40(2), 229-237.
- Tüzer, V., Tuncel, A., Göka, S., Bulut, S. D., Yüksel, F. V., Atan, A., & Göka, E. (2010). Marital adjustment and emotional symptoms in infertile couples: gender differences. Turkish Journal of Medical Sciences, 40(2), 229-237.
- Ulbrich, P. M., Coyle, A. T., & Llabre, M. M. (1990). Involuntary infertility and marital adjustment: His and hers. *Journal of Sex & Marital Therapy*, 16(3), 147-158.
- Valenzuela, D. (2016). A phenomenological study of the experiences of voluntarily childless married couples: A lifetime decision (Doctoral dissertation).

- Valenzuela, D. (2016). A phenomenological study of the experiences of voluntarily childless married couples: A lifetime decision (Doctoral dissertation).
- Van Balen, F., & Bos, H. M. (2009). The social and cultural consequences of being childless in poor-resource areas. *Facts, views & vision in Ob Gyn, 1*(2), 106.
- Van Keep, P. A., & Schmidt-Elmendorff, H. (1975). Involuntary infertility. *Journal of Biosocial Science*, 7(1), 37-48.
- Vizheh, M., Pakgohar, M., Rouhi, M., & Veisy, A. (2015). Impact of gender infertility diagnosis on marital relationship in infertile couples: a couple-based study. *Sexuality and Disability*, *33*(4), 457-468
- West, C. P. (2012). A mixed methods sequential explanatory study of the impact of chronic pain on family resilience (Doctoral dissertation, James Cook University).
- WHO (World Health Organization) (2020). *Infertility*.
- World Health Organization. (2018). *Infertility is a global public health issue* [*Internet*]. Retrieved October 10, 2018.
- Yaw Osei N. Association of Infertile married individuals of Ghana (ACCOG). *Facts Views Vis Obgyn.* 2014;6(2):99–102. PMCID: PMC4086022.
- Yilmaz, T., & Oskay, U. Y. (2017). The Evaluation of Methods Used to Cope with Infertility Stress of Infertile Couples in Turkey. *International Journal of Caring Sciences*, 10(3).
- Zurlo, M. C., Cattaneo Della Volta, M. F., & Vallone, F. (2017). Factor structure and psychometric properties of the Fertility Problem Inventory–Short Form. *Health psychology open, 4*(2).
- Zurlo, M. C., Cattaneo Della Volta, M. F., & Vallone, F. (2020). Re-examining the role of coping strategies in the associations between infertility-related stress dimensions and state-anxiety: Implications for clinical interventions with infertile couples. *Frontiers in psychology*, 11, 614887.

APPENDIX A

SDA CHRUCH DARKUMAN BOX DK 34 DARKUMAN, ACCRA 29TH MAY 2023

THE HEAD OF DEPARTMENT
DEPARTMENT OF COUNSLLING PSYCHOLOGY
UNIVERSITY OF EDUCATION
WINNEBA

Dear Sir,

REQUEST FOR INTRODUCTION LETTER FOR DATA COLLECTION

I wish to write to request for a letter of introduction to collect data for my research on the topic: infertility, marital satisfaction and coping strategies among married individuals in Korle Klottey Municipality, Greater Accra Region. I am M.phil. Counselling psychology student at the University of Education, Winneba and my student identification number is **202121395**. My research supervisor is Professor Antwi Danso.

This request necessary because I need official authorization from the University that would make me acceptable by individuals who would be selected for the research work.

Please, attached are the instruments for data collection from the field.

I hope my request would be considered. Counting on your usual assistance.

Thank you

Yours Faithfully,

Elijah Kwaku Benyi

APPENDIX B

UNIVERSITY OF EDUCATION, WINNEBA DEPARTMENT OF COUNSELLING PSYCHOLOGY MASTER OF PHILOSOPHY IN COUNSELLING PSYCHOLOGY MARITAL SATISFACTION INVENTORY (MSI)

Please fill in the following

Age	Gender	Religion	Educational
Level	Address	(Permanent)	

INSTRUCTIONS

This inventory is designed for married couples. It is to assist you as a spouse to find out the extent you are satisfied in your marriage. Such knowledge would alert you to work to improve your marriage if your satisfaction score is low (i.e. not satisfied). If it is high (i.e. satisfied), you will be encouraged to maintain it and even examine areas which you can improve further to enrich your marriage. The richer your marriage relationship is the more satisfied you will feel.

The inventory has thirty (30) items (statements). In filling it, read each item first. Make sure you understand. On the right side of the items there is a row of boxes. Indicate in one of the boxes a tick ($^{\checkmark}$) to show how true the item applies to you. See the example below. Confidentiality of the information you provide is very much assured.

Thank you.

Very True	True	Not True	Not At All True		
	V				

FORM A (FOR MEN)

No.	Items	Very True	True	Not True	Not At All True
1	I always feel fulfilled, happy when I have my wife by me.				
2	I like the way my wife converses and shares her experiences with me.				
3	I am satisfied sexually with my marriage.				
4	I am very disturbed because my wife does not appreciate all the sacrifices				

	CATION OF	2		
	I put in my marriage			
5	We (I and my wife) quarrel over petty disagreements and each other's feelings very often.			
6	My wife cannot be trusted. She is very cunning, not reliable.			
7	I will feel much happier if I move out of my present marriage.			
8	My wife is the best I can ever have.			
9	I like my wife a lot for her financial			

	support in the marriage.			
10	My wife always seeks my opinion on important issues concerning our marriage. I like this.			
11	My in-laws are very helpful and give me respect.			
12	I am fed up with my wife because she is stubborn, never ready to change her bad ways (like her keeping bad friends).			
13	My wife is too cold for my liking. I do not enjoy her company.			
14	My wife is indifferent. She does not care about what I do with my life.			
15	My wife keeps her money to herself. She does not contribute to the upkeep of the home and family.			
16	I notice that my wife is becoming more attractive to me. I am growing to love her more and more.	MG3		
17	My in-laws are my worst enemies in my marriage. They make my life miserable.			
18	One thing I like about my wife is that she admits her faults and apologizes.			
19	My wife is insolent. She speaks to me with respect.			
20	Our conversation always ends in a quarrel. So we scarcely converse			

	these days.			
21	I and my wife accept disagreement			
	without hurting each other's			
	feelings.			
22	My wife nags almost every day and			
	makes my life very uncomfortable.			
23	My wife appreciates very much how			
	I help her in the home (with the			
	household chores).			
24	My wife does not like my relatives.			
	She treats them badly when they			
	visit. This makes me highly			
	displeased.			
25	I like the way my wife keeps in touch			
	when she travels. She phones and			
	converses to my liking.			
26	My wife cooks well and takes good	3		
	care of the home. I love her for this.			
27	My wife respects and admires me			
	very much. She says I work hard.			
28	My wife complains too much.			
	Nothing I do at home pleases her.			
29	My wife is fond of hitting me with			
	objects to harm me when she angry. I			
	feel unsafe because she is very			
	violent.			
30	I enjoy my wife's company most			
	times.			

SCORING GUIDE FOR THE MSI

	SCALE 1: Relationship						TOTALS
Item No.	2	5	10	20	21	25	
Item Scores							
	SCAL	E 2: Affec	tion, Love	and Appre	ciation		
Item No.	3	4	16	23		27	
Item Scores							
	SCAL	E 3: Chara	icter				
Item No.	6	12	18	19	22	28	
Item Scores							
	SCAL	E 4: Temp	erament				
Item No.	13	14	29	7			
Item Scores							
	SCAL	E 5: In-La	w Issues		9		
Item No.	11	17	24 Allon FO	OR SERVICE			
Item Scores							
	SCAL	E 6: Marit	al Roles				
Item No.	9	15	26				
Item Scores							
	SCAL	E 7: Gener	ral Evaluat	tion			
Item No.	1	7	8	30			
Item Scores							
		TOT	AL SCOR	RE FOR M	SI		

UNIVERSITY OF EDUCATION, WINNEBA

DEPARTMENT OF COUNSELLING PSYCHOLOGY

MASTER OF PHILOSOPHY IN COUNSELLING PSYCHOLOGY

MARITAL SATISFACTION INVENTORY (MSI)

Please fill in the following

Age	.Gender	Religion	.Educational
Level	Address (Permanent)		

INSTRUCTIONS

This inventory is designed for married couples. It is to assist you as a spouse to find out the extent you are satisfied in your marriage. Such knowledge would alert you to work to improve your marriage if your satisfaction score is low (i.e. not satisfied). If it is high (i.e. satisfied), you will be encouraged to maintain it and even examine areas which you can improve further to enrich your marriage. The richer your marriage relationship is the more satisfied you will feel.

The inventory has thirty (30) items (statements). In filling it, read each item first. Make sure you understand. On the right side of the items, there is a row of boxes. Indicate in one of the boxes a tick ($^{\checkmark}$) to show how true the item applies to you. See the example below. Confidentiality of the information you provide is very much assured.

Thank you.

FORM B (FOR WOMEN)

No.	Items	Very True	True	Not True	Not At All True
1	I always feel fulfilled, happy in the company of my husband.				
2	I like the way my husband converses and shares jokes with me.				
3	I am satisfied sexually with my marriage.				
4	I am very worried because my husband does not appreciate all the sacrifices I put in my marriage.		1		
5	We (I and my husband) quarrel over petty disagreements and each other's feelings very often.	BRMCE			
6	My husband is not trustworthy. He is cunning, not reliable.				

7	I will feel much happier if I move out			
	of my present marriage.			
8	My husband is the best I can ever			
	have.			
9	I like my husband a lot for helping			
	me with the household chores.			
10	My husband always seeks my opinion			
	on important issues concerning our			
	marriage. I like this.			
11	My in-laws are very helpful and give			
	me respect.			
12	I am fed up with my husband because			
	he is stubborn, never ready to change			
	his bad ways (like affairs with) // [1	
	women).	MOE		
13	My husband is too cold for my liking.			
	I do not enjoy his company.			
14	My husband is indifferent. He does			
	not care about what I do with my life.			
15	My husband keeps her money to			
	himself. He does not perform his			
	financial duties for the upkeep of the			
	home.			

16	I notice that my husband is becoming
	more attractive to me. I am growing
	to love him more and more.
17	My in-laws are my worst enemies in
	my marriage. They make my life
	miserable.
18	One thing I like about my husband is
	that he admits his faults and
	apologizes.
19	My husband speaks to me harshly as
	if I am a child. I strongly dislike this.
20	Our conversation always ends in a
	quarrel. So we scarcely converse
	these days.
21	I and my husband accept
	disagreement without hurting each
	other's feelings.
22	I thought it is only women who nag.
	My husband nags too much to my
	discomfort.
23	My husband appreciates my cooking
	always. I like this.
24	My husband speaks harshly and
	angrily to my relatives when they

University of Education, Winneba http://ir.uew.edu.gh

	visit. This displeases me.			
25	I like the way husband phones and			
	converses when he travels. He does it			
	frequently.			
26	My husband is committed. He gives			
	enough house-keeping money and			
	sometimes gives more.			
27	My husband has great respect for me.			
	He admires my hard work at home.			
28	No matter how well I cook, my			
	husband would find some fault. He is			
	always complaining about my			
	cooking.			
29	My husband gets angry too frequently			
	and beats me. I am thinking of ONFOR	RMCE		
	reporting him to the police.			
30	I enjoy my husband's company most			
	times.			

SCORING GUIDE FOR THE MSI

	SCAL	E 1: Relat	ionship				TOTALS	
Item No.	2	5	10	20	21	25		
Item Scores								
	SCAL	SCALE 2: Affection, Love and Appreciation						
Item No.	3	4	16	23		27		
Item Scores								
	SCAL	E 3: Chara	acter					
Item No.	6	12	18	19	22	28		
Item Scores								
	SCAL	E 4: Temp	erament	1				
Item No.	13	14	29	3				
Item Scores								
	SCAL	E 5: In-La	w Issues		4			
Item No.	11	17	24 ATION FO	OR SERVICE				
Item Scores								
	SCAL	E 6: Marit	al Roles					
Item No.	9	15	26					
Item Scores								
	SCALE 7: General Evaluation							
Item No.	1	7	8	30				
Item Scores								
	TOTA	L SCORI	E FOR MS	SI				

APPENDIX C

PERCEPTION ABOUT CAUSES OF INFERTILITY INVENTORY (PACI)

(Self-adapted)

Please, fill in the following:
SECTION A: Demographic Characteristics
Age: Gender: Religion:
Level of Education: Occupation: Length of Marriage:
INSTRUCTIONS
This inventory is to assist in find out the extent you perceive causes of infertility. If
your perception score is low, it means you (i.e. disagree). If it is high, it means you
(i.e. Agree).
The inventory has nineteen (19) items (statements). In filling it, read each item first.
Make sure you understand. On the right side of the items, there is a row of boxes.
Indicate in one of the boxes a tick ($$) to show how you agree or disagree to the items.
Confidentiality of the information you provide is very much assured.
Thank you.

SECTION B: Perception of married couples on infertility

	What are your beliefs about the causes of	Agree	Not sure	Disagree
	infertility?			
9	Infertility is caused by witches and witchcraft			
10	Infertility is caused by watery sperm			
11	Curses from fetish/gods cause infertility among couples.			
12	Evil spirits cause infertility in both men and			

University of Education, Winneba http://ir.uew.edu.gh

	women.		
13	Breaking a taboo in the community causes		
	infertility.		
14	Previous abortion causes infertility in women		
15	Blockage of the fallopian tube causes		
	infertility in women.		

		Agree	Not sure	Disagree
16	The pelvic inflammatory disease causes			
	infertility in women.			
17	Low sperm count causes infertility in men			
18	Breaking a taboo in the community causes infertility.			
19	Previous use of contraceptives causes infertility.			
20	Past promiscuous life causes infertility			
21	Excessive intake of alcohol causes infertility			
22	Excessive smoking causes infertility			
23	The influence of personality traits causes infertility.			
24	Strain family relation causes infertility.			
25	Sexual disorders cause infertility.			
26	Reproductive cycle disorders cause infertility.			
27	The endocrine mechanism affected by stress causes infertility			

SCORING GUIDE FOR THE PERCEPTION ABOUT CAUSES OF INFERTILITY INVENTORY (PACI)

	Scale 1: Medical Causes of infertility	Total
Item No.	2, 5, 10, 17	
Item scores		
	Scale 2: Supernatural Causes of infertility	
Item No.		
Item scores		
	Scale 3: Cultural Causes of infertility	
Item No.	6	
Item scores		
	Scale 4:Biological Causes of infertility	
Item No.	13 14 0	
Item scores		
	Scale 5: Social Causes of infertility	
Item No.	9 11	
Item scores		
	Scale 6: Psychological Causes of infertility	
Item No.	1 7 8 12 15	
Item scores		

APPENDIX D

INTERVIEW GUIDE FOR INFERTILE MARRIED INDIVIDUALSS IN KORLE KLOTTEY MUNICIPALITY IN ACCRA

Demographic Data

A	ge:	Gender:	Religio	on:	
Level of Ed	lucation:	Occupat	ion:	Length of Marriage	e:

1. Introduction

My name is Elijah Kwaku Benyi an M. Phil. Student from the University of Education, Winneba. The topic of my research work is "Infertility, marital satisfaction and coping strategies among couples in Korle Klottey Municipality, Accra. I am seeking responses from infertile married individuals who have difficulty to conceive naturally without success for over a year. Any information given would be treated with strict confidentiality. Names of participants would not be disclosing to any third party as far as this research work is concern.

Interview Guides Questions

- ix. How does your infertility situation affect your communication in the marriage?
- x. How does your infertility situation affect your sexual life?
- xi. How does your infertility situation affect your financial support?
- xii. How does your infertility situation affect your marital respect?
- xiii. How does your infertility situation affect your marital commitment?
- xiv. How does your infertility situation affect your marital appreciation?
- xv. Do you sometimes feel stigmatized, excluded, or left out because of your infertility situation?

University of Education, Winneba http://ir.uew.edu.gh

xvi. What did you do (in terms seeking solution) when you discovered that it was taking rather too long to get pregnant?

xvii. What are the coping strategies adopted for your infertility situation?

xviii. How do these coping strategies affect your marriage?

