

**SCHOOL OF NURSING AND MIDWIFERY
COLLEGE OF HEALTH SCIENCES
UNIVERSITY OF GHANA**



**PSYCHOSOCIAL EXPERIENCES OF MEN WITH INFERTILITY IN
THE TAMALE METROPOLIS**

BY

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(10294665)

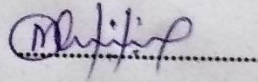
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LEGON IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR
THE AWARD OF MPhil NURSING DEGREE**

OCTOBER, 2020

DECLARATION

I, Mohammed Mujahid Baba hereby declare that this thesis, with the exception of references to literature which have been duly cited, is my own work produced from research undertaken for the award of the degree of Master of Philosophy in Nursing at the School of Nursing and Midwifery of the University of Ghana, Legon. That, no part of this thesis has been presented for another degree in this University or elsewhere. That, this thesis was supervised by Dr. Florence Naab of the University of Ghana, Legon and Dr. Josephine Kyei of the University of Ghana, Legon.

Mohammed Mujahid Baba



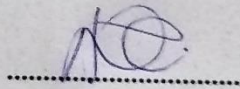
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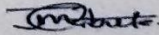
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ABSTRACT

Infertility is a public health concern and a life-threatening situation to men who experiences it. These men experience numerous psychosocial crisis in their daily lives. The literature on infertility was concentrated on women without considering men within the realm of reproduction. There is inadequate knowledge of the experiences of men with infertility in the Northern part of Ghana. This study, therefore, explored the psychosocial experiences of men with infertility. The study adopted a qualitative exploratory descriptive design with the biopsychosocial model as a guide to the study. Using a semi-structured interviewed guide, data were collected via a face-to-face in-depth interview with fourteen purposively selected men with self-reported infertility at the Natural Solution Herbal clinic. The interviews were audio-recorded and transcribed verbatim. After thematic content analysis of the transcribed data, nine (9) major themes and thirty-three (33) sub-themes emerged. The findings from the study demonstrated that men with infertility experience numerous psychosocial problems; attribute the cause of their infertility to God and the work of supernatural forces; and financial constraints when seeking infertility treatment. These men need clinical psychologist /professionally trained counsellors in the various fertility clinics and hospitals to address the needs of these men. These men experiencing infertility desire assistance in seeking infertility treatment. Therefore, there is a need for policymakers to have an insurance package for these men to cope with their infertility. The findings of this study have implications for nursing practice, nursing research and policy formation.

DEDICATION

This study is dedicated to my parents (Alhaji A. H. Baba and Mrs. Yahaya Mariama), my lovely wives (Aliu Yatasu and Mumuni Nadrata) and my daughter (Rabab Timtooni Mohammed Mujahid).

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LIST OF ABBREVIATIONS

ART	Assisted Reproductive Technology
AUA	America Urological Association
BPS	Biopsychosocial model
CSM	Cerebrospinal Meningitis
GSS	Ghana Statistical Service
HCG	Human Chorionic Gonadotropin
ICSI	Intracytoplasmic Sperm Injection
IUI	Intrauterine Insemination
IVF	In Vitro Fertilization
JHS	Junior High School
LMICs	Low and Middle Income Countries
NMIMR-	Noguchi Memorial Institute for Medical Research Institutional
IRB	Review Board
SHS	Senior High School
SMHS	School of Medicine and Health Sciences
TAMA	Tamale Metropolitan Assembly
TTH	Tamale Teaching Hospital

UDS **University for Development Studies**

WHO **World Health Organization**

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Epidemiological data has revealed that infertility is a universal problem, affecting one-fifth (1/5) of the population of married people, who desire to have children (Boivin, Bunting, Collins, & Nygren, 2007; Kovács, 2006; Szkodziak et al., 2016). Approximately 70-80 million people worldwide have difficulty conceiving (Boivin, Bunting, Collins, & Nygren, 2009; Mahadeen, Mansour, Al-halabi, Habashneh, & Kenana, 2018). Infertility is a worldwide disease affecting 49 million married people, representing 15% to 30% of couples within the reproductive age (Agarwal, Mulgund, Hamada, & Chyatte, 2015; Logan, Gu, Li, Xiao, & Anazodo 2019; Mascarenhas, Flaxman, Boerma, Vanderpoel, & Stevens, 2012). According to the World Health Organization (WHO), infertility is defined as the inability of a woman at childbearing age to conceive, after two or more years of unprotected coitus (WHO, 2014b; Zegers-Hochschild et al., 2009).

Zegers-hochschild et al., (2017) and Vander Borght and Wyns, (2018) are of the view that infertility is a “disease characterised by the failure to establish a clinical pregnancy after 12 months of regular, unprotected sexual intercourse or as a result of an impairment of a person’s ability to procreate either as an individual or with his/her partner. Fertility interventions may commence in less than one year based on medical, sexual and reproductive history, age, physical findings, and diagnostic testing. Infertility is a disease, which generates a disability as an

impairment of function” (p.9). Demographically, infertility can be defined as, an inability to become pregnant within five years of exposure to unprotected coitus, based on consistent marriage status, lack of contraceptive use, non-lactating, and preserving a desire for a child (Mascarenhas, Cheung, Mathers, & Stevens, 2012; WHO, 2014b; WHO, 2018).

Report from the WHO and World Bank (2011) indicated that infertility rated as the fifth cause of severe disability and impairment among couples in low and middle-income countries (LMICs). Clinically, infertility is referred to as a reproductive system disease, which occurred as a result of the inability of a woman of childbearing age, to conceive clinically, after one (1) year or more of unprotected copulation (Godwin, Montoro, Mudershpach, Paulson, & Roy, 2010; Hörbst & Wolf, 2014; Mustafa, Hadi, Iizam, & Aliya, 2019). Psychologists define infertility as the inability of couples to become pregnant after at least one year of regular unprotected sexual intercourse (Mahadeen, Mansour, Al-halabi, Habashneh, & Kenana, 2018). Reaves (2018), has suggested that infertility has economic, medical and psychological consequences leading to stress and trauma within society. A significant proportion of males have been identified as the source of couple infertility causing health concern (Ferlin, Dipresa, & Foresta, 2019; Limiñana-Gras, 2017). A study conducted about the causes of infertility revealed that male-related factors were up to 25-50% (Agarwal, Mulgund, Hamada, & Chyatte, 2015; Alkhedaide et al., 2016; Martinez et al., 2012; Winters & Walsh, 2014).

In the US, it is reported that 35%-65% of fertility treatment was due to male factor infertility and affecting 7.3 million men (AUA, 2011; Glazer, Anderson-

Bialis, Anderson-Bialis, & Eisenberg, 2020). On the contrary, a study indicated that the incidence and prevalence of male infertility are difficult to access because the disease was not reportable on an outpatient-based (Quallich & Faanp, 2016). Winters and Walsh (2014), reported that infertility problems projected to increase by doubling a million cases yearly. Infertility has thus become a public health issues since the number of male infertilities would keep on multiplying each year.

Studies have suggested that infertility is classified into several categories. Sharma (2017), explained that infertility can be divided into primary infertility where the man had never impregnated a woman before and secondary infertility where the man has some time impregnated a woman, even though the woman may not be the current partner. Psychogenic infertility involves the inability of a man to ejaculate due to a deep-seated psychological issue (Enache & Matei, 2016). Psychogenic combined infertility refers to a situation where both the man and the woman were either sub-infertile or infertile, which could be due to immunological condition or genetic; and unexplained infertility where the cause is idiopathic (Advanced Fertility Center, Chicago, 2015).

Psychologically, men with infertility exhibit denial, a moment of silence, avoidance, lose of self-confidence, and addictive behaviour (Enache & Matei, 2016). Some of the men with infertility suffer from social isolation, stigma, and depression (Naab, 2010). Quite apart from that, studies show that, men with infertility display depression, anxiety, somatic symptoms, and a lower rate of self-esteem and emotional distress (Joja, Dinu, & Paun, 2015; Kohlmeier & Klock, 2018; Quallich & Faanp 2016). Hudson and Culley (2013) explain that men tend to

suppress their emotions to support their partners and engage actively with the problem in a restored oriented and practical manner concerning the loss (Stroebe & Shut, 2010). Men with infertility turn to blame themselves for not being able to do what they are supposed to do and seek health care providers' support to address this emotional misunderstanding (Sylvest, Fürbringer, Schmidt, & Pinborg, 2016b). Luk and Loke (2015) indicated that infertility was a significant source of depression and dissonance in married adults. According to Budh, Chaturvedi, Upadhyay, Bhatia, and Radhakrishnan, (2017), stress, depression, anxiety, social isolation, and guilt are the psychosocial problems affecting men in long-time management of infertility as well as its expensive treatment.

Research evidence established that men experiencing infertility suffered insecurity in their marital relationship, ostracisation, and social stigma in Muslims dominated setting where procreation was highly cherished (Fisher & Hammarberg, 2012). The negative attitude and intrusion of people towards men living with infertility increase the likelihood of divorce and social stigmatisation (Amiri et al., 2015; Erginet et al., 2018). Similarly, Naab and Kwashie (2018), reported that the psychological and emotional problems experienced by men were influenced by traditional beliefs and practices. Socially, men experiencing infertility were not involved in family matters; they are verbally abused, they are ambivalent of social support and sometimes divorced by their partners (Schick et al., 2016). In fact, it was reported that infertility was the motive behind divorce in Southern Ghana (Osei, 2014).

Male infertility is related to the high cost of infertility care which causes significant psychosocial and marital stress (Winter & Walsh, 2016). This implies that if one is poor and cannot reproduce, it would be very challenging to seek treatment. This could be the reason why men do not visit health facilities. Male infertility has not received enough attention in demographic studies (Tragaki & bagavos, 2014); therefore, infertility was principally undocumented in some countries (Schounmaker & Schounmaker, 2017). It seems the focus of infertility concentrated much on female infertility, and much had not been done on male infertility. The psychological and social experiences of men with infertility have not been delved much into. Consequently, anecdotal evidence indicate that men with these problems do not know how to cope with it. No attention had been paid to the psychosocial experiences of men with infertility in the Northern part of Ghana. To understand the psychosocial experiences of men with infertility, this study was guided by the biopsychosocial conceptual model.

1.2 Problem statement

Male infertility remains a concealed reproductive health ailment even though it contributes to more than half of all cases of childlessness worldwide (Inhorn & Patrizio, 2015). In other words, male infertility is a chronic reproductive health ailment affecting millions of men globally, even though it is rarely recognised as such. As a result, women with infertile spouses are often mistakenly blamed for infertility (Naab & Kwashie, 2018). Women whose husbands were infertile tried to shield their husbands from such a condition and preferred being humiliated by the man's family and friends. Interestingly, having children is prestigious in Africa

and Ghana. The birth of a child/children brings joy and happiness to the couple and the family as a whole. This shows the man's capabilities. However, men with infertility are marginalised in society. Their voices are not heard during decision making leading to stigmatisation in society and name-calling. So, these societal outlooks and norms were found to be too influential factors for those experiencing infertility. This leads to the development of psychological problems such as anxiety, depression, suicidal ideation, and sometimes death.

However, contemporary research on infertility centers primarily on women only, consequently without considering men within the realm of reproduction, and a more significant number of this research failed to consider the influence of infertility on men. This had ensued in a lack of knowledge of the experience of male factor infertility. In Ghana, limited studies have been conducted on male infertility. Few studies have been done in southern Ghana. For example, Naab and Kwashie, (2018), Brown and Adjei, (2015), Arhin, Mensah, Agbeno, Badii, and Ansah, (2019), and Bimah, (2016) have conducted studies about male infertility. However, there is no data concerning the experiences of males with infertility in the Northern Region of Ghana. The nature and magnitude of men experiencing infertility are lacking in these study areas. However, as at the time of conducting this study, to the best of my knowledge, there was no study on this topic. This study, therefore, explored the psychosocial experience of men with infertility in the Tamale Metropolis using the biopsychosocial framework as a guide.

1.3 Purpose of the study

To explore the psychosocial experiences of men with infertility in the Tamale Metropolis.

1.4 Specific Objectives

The specific objectives of the study were to:

1. Assess the psychological factors (attitude/beliefs, behaviour, emotions, and coping skills) of men experiencing infertility in the Tamale Metropolis.
2. Assess the social support (social context) available for men experiencing infertility in the Tamale Metropolis
3. Describe the cultural factors (social context) associated with men experiencing infertility in the Tamale Metropolis
4. Explain the socio-economic status (social context) of men experiencing infertility in the Tamale Metropolis

1.5 Research questions

The specific questions this study tried to address were:

1. What are the psychological factors (attitudes/beliefs, behaviour, emotions, and coping skills) of men experiencing infertility in the Tamale Metropolis?
2. What is the social support available for men experiencing infertility in the Tamale Metropolis?
3. What are the cultural factors associated with men experiencing infertility in the Tamale Metropolis?

4. What is the social status of men experiencing infertility in the Tamale Metropolis?

1.6 Significant of the study

The findings of this study would aid health care providers to equip themselves with more knowledge and skills in managing the psychosocial problems of men experiencing infertility. It would help in providing health education programs tailored to suit men experiencing infertility. It would also add to the body of knowledge in the zone of infertility and serve as a foundation for further research.

1.7 Operational Definitions

Psychological experience: This refers to how the individual understanding, feelings and other cognitive features influence the attitude, behaviour and functions of the human mind.

Social experience: This refers to how the individual experiences influence his personality, attitudes and lifestyle within a society.

Infertility: The inability to conceive after several attempts within one year or more of regular and unprotected coitus.

CHAPTER TWO

CONCEPTUAL FRAMEWORK AND LITERATURE REVIEW

This chapter describes the conceptual framework and reviews pertinent literature on the psychosocial factors of male infertility.

2.1 Selection of Conceptual Framework

Three different frameworks were considered for this study. They were; the theory of planned behaviour model, the psychosocial model, and the biopsychosocial model. The theory of planned behaviour model by Ajzen (1991) was not relevant to the study because there are only two concepts behaviour and attitude that were related. So the model does not fit into the phenomenon of study. Also, the psychosocial model by Donatelle (2011) does not make provision on how this model would be applied to human beings in the health care setting and detailed description of its various constructs are inadequate. However, the biopsychosocial model by Engel (1977) developed to consider the human being's health as biological, psychological, and social, which interact together to give optimal health to human beings. The model related well to the phenomenon of the study. Therefore, the constructs of the biopsychosocial model modified by Ong (2018) were considered suitable to be used to guide this study. Ong (2018) biopsychosocial model provides a practical framework for assessing and managing diseases or illness due to its significance of biological, psychological, and social factors.

2.1.1 The biopsychosocial Model

The biopsychosocial model was developed by Engel (1977) and modified by Ong (2018) to explain how health was assessed and treated concerning biological, psychological, and social factors. The biopsychosocial model (BPS) of health as modified by Ong (2018) provides a useful framework for assessing and managing diseases or illness due to its significance of biological, psychological, and social factors (see figure 2.1). The model indicates the various concepts found in each construct. Ong (2018), model concentrated on how biological, psychological, and social context influence health and illness. He traditionally views health as separate entities from health and illness. On the other hand, scientific studies show that the mind and body were familiarly related and that alterations in physical health can influence mental and emotional health (and vice versa) (Ong, 2018). The biopsychosocial model is also an interdisciplinary model that adopts that wellness and health are triggered by a multifaceted interaction of biological, psychological, and social agent's whiles providing the foundation for consideration of the experiences and determinant of maladies. Ong (2018), was also of the view that illness and ill-health were influenced by an individual's biological, psychological, and social attributes since health was implicit as an incorporated amalgamation of all these constituents.

The suggested biopsychosocial model provides a foundation for investigation, a context for teaching, and a plan for action in the real world of healthcare (Engel 1977). The model attempts to integrate the psychosocial in the medical practice and education, since highlights on the biopsychosocial model, as

suggested by Engel, was on the patient's experiences of his / her disease condition. The model ensures that medical practice combines suitable listening and clinical communication skills to fully hear and related to patients' experiences of their disease condition and give proper management to it. The biopsychosocial model suggests that the management or treatment of disease should address the biological, psychological, and social constituents of the problem and not only the physical aspects (Ong, 2018). The model was considered as a guide for clinical practices. According to the author, the practical understanding of the biopsychosocial model is to comprehend the patients' subjective experiences as a crucial contributor to correct diagnosis, health results, and human care.

2.1.2 Biological Constituent

The biological constituent explains how a person's physiological process is affected by diseases and its remedies for the cause. Again, it outlines the pathology of the condition to the individual and the medical treatment available to fight the disease. It also involves what illness does to an individual's body and the various medical diagnoses as well as medical interventions that are used to fight that disease.

2.1.3 Psychological Constituent

The psychological constituent deals with thoughts, emotions, behaviours, past trauma, attitudes/beliefs, and coping methods of the individual. It also views the individual, especially during sickness how he/she adapts and adjust to the disease condition.

2.1.4 Social Constituent

The social constituent tries to address the individual relationships with friends, the social support from the community, the family background, culture, tradition, social/economic status, and educational level of the individual. This aspect tries to see how social beings interact with people and the community to ensure ultimate health.

Engel explains that constricting our reach to biological treatment of wellbeing restricts our understanding of health, which block out management efforts, and suppressed preventive measures. Again, he made it accepted that the old-style medical attitudes whereby the notion and management of ailment were limited only to what can be acknowledged or implicit by the physician are mistaken, as malady cannot be defined on the foundation of the function of physicians but also the basis of patients' experiences due to the disease. Moreover, the biopsychosocial model deduces that it is key to handle these three factors together when managing health problems. This model was settled to address the active association between the biological, psychological, and the social factors of health, and as well influencing comprehension in the treatment or management and the diagnosis of a disease condition. The model, as suggested by Engel (1977) and modified by Ong (2018), would be adapted as an organising framework to get a better comprehension of the biopsychosocial experiences of male with infertility.

The theoretical framework of the study

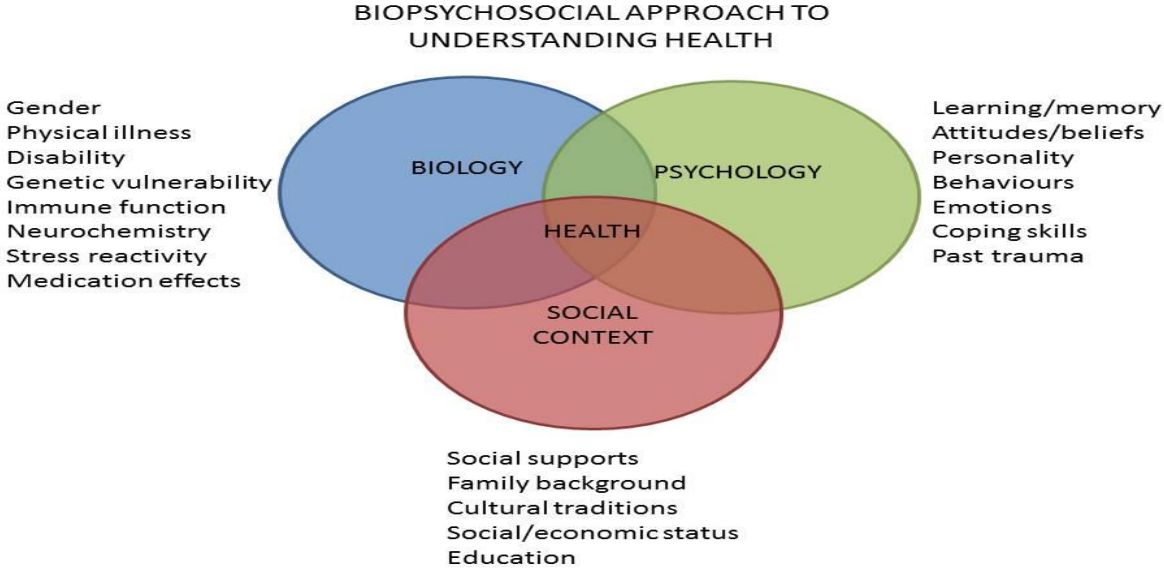


Figure 2.1: Biopsychosocial model (Ong, 2018)
(Theoretical framework)

2.1.5 Application of the Conceptual Framework to the study

Health is a state of wellbeing or balance, often physical but sometimes also mental and social. Consequently, the overall level of function of an organism is from the cellular level to the social level. The biological, psychological, and social factors or constituents interact well in equilibrium to give one optimal health. To manage or treat someone with infertility, one has to understand how these factors interact. Alteration in any of the factors would give rise to ill-health. So, the model states that health and illness are gritty by an active interaction between biological, psychological, and social factors.

Biological factors that were likely to cause infertility in individual includes; gender, physical illness, disability, genetic vulnerability, medication effects, stress reactivity, immune function, and neurochemistry. The biopsychosocial model understands how these factors can cause or contribute to infertility. Thorough physical assessment and investigations of an individual with infertility can help to identify these problems and manage them appropriately. This construct of the model would not be considered as part of the literature review because the researcher is interested in the psychosocial experiences of men with infertility.

People who have been diagnosed with infertility develop some psychological problems associated with the condition. These problems may affect a person's learning/memory, attitudes/beliefs, personality, behaviours, emotions, coping skills, and past trauma. The psychological system deals with the effects of psychodynamic factors on the experience of and reaction to illness. The model helps health workers to appreciate the psychological trauma people with infertility

go through. This model will assist the health provider in incorporating psychological management to people diagnosed with infertility.

The social factor would determine how successful a man would recover or live with infertility. The social supports, family background, cultural traditions, social/economic status, and education of the individual or family would determine whether individual experiencing infertility would be accepted into the society or not. The model highlights how social dynamics play a role in integrating people with infertility into the community. Furthermore, the Social system examines the cultural, environmental, and familial influences on the expression and experience of the illness. In this study, the biopsychosocial model was used to understand the psychosocial experience of men with infertility. However, in this study, the biological component of the model would not be applied because the biological concepts described by the model were outside the scope of this study.

2.2 Literature Review

The objectives of this study, as well as the model framework, were used to review the literature. The information were accessed through an internet search. Online databases that were used included; Taylor and Francis, PubMed, Wiley-online Library, Science Direct and Google Scholar. The boolean technique was used to get relevant articles for this research topic by a combination of words such as; male infertility, psychological and social aspect of infertility, infertility psychosocial, coping with infertility sometimes linked by “AND”, “OR”. Before the use of any article for the study, thorough scanning was done and evaluated before the review. Publication status, reference, evidence, and whether it was

reviewed were the criteria used to select the articles. For scientific studies, recent articles published from 2015 were selected. But some articles published in 2005 and above were also considered for review.

2.2.1 Biological constituent

This construct of the model would not be considered as part of the literature review because the researcher is interested in the psychosocial experiences of men with infertility. Also, to consider this biological construct would demand the involvement of invasive procedures. This was because the researcher may request that the participants undergo a lot of laboratory investigations.

2.2.2. Psychological experiences of men with infertility

Some aspects of psychological construct or factors were reviewed. Learning/memory, personality, and past trauma are concepts found in the construct but were not reviewed in this study. This is because they are not relevant to this study. The rest of the concepts were reviewed.

Review of articles on understanding infertility: psychological and social considerations from a counselling perspective in Germany revealed that men suffering from infertility distance themselves emotionally as compared to their women counterparts (Thorn, 2014). Whiles in Australia, research findings suggest that men with infertility who were socially isolated turned to adapt to avoidant coping styles (Fisher & Hammarberg, 2012). Men with infertility tend to use self-controlling coping, playful problem-solving, and distancing to deal with their infertility problems (Pasch and Sullivan, 2016). This seems to suggest that men with infertility try as much as possible to avoid talking about their condition or keep

their distance if friends were talking about their children and this reduces the psychological burden of their condition. Some other men try to find themselves engaged in a lot of activities to divert their minds off from their infertility problem.

According to Yazdani, Kazemi, and Ureizi-Samani (2016), the results of a study in Iran among 133 couples undergoing assisted reproductive treatment to access the relationship between their attitude to infertility and coping strategies posited that both men and women use self-focused and self-blame rumination coping skills towards their infertility condition. They indicated that self-blame strategies do not benefit men experiencing infertility. Still, the use of active confrontation skills has a good result, which has a link with their level of education. Another study conducted in Denmark, by Peterson, Pirritano, Block, and Schmidt (2011) regarding marital benefit and coping strategies in men and women undergoing unsuccessful fertility treatment over five years, revealed that men and women benefited from using meaning-based coping strategy to enjoy their marriage. Meanwhile, if the infertility is due to a malefactor, the woman turns to use higher active avoidance coping strategy, which causes lower marital benefit on the part of men. This shows that couples who used active-avoidance coping skills strive for relief from pressure (stress) through enthusiastically evading the situation and prompts of infertility. The meaning-based coping strategy used by men indicates continuous marital benefit over time (Peterson et al., 2011; Yilmaz, 2017).

Coping skills are cognitive and behavioural effort used by people to manage their stressful situations (Hietala, 2016; Lazarus & Folkman, 1984 as cited in Yazdani et al., 2016). Most of the strategies adapted include; maladaptive coping

strategy, emotion-focused strategy, and active and problem-focused coping strategy (Lechner, Bolman, & van Dalen, 2007). Research findings by Faramarzi et al. (2013) and Nieuwenhuis, Odukogbe, Theobald, and Liu, (2009) concerning coping strategies as predictors of anxiety and depression in couples with infertility established that men and women exhibited similar and different patterns when coping with anxiety and depression. They indicated that when dealing with anxiety, both men and women adapt escape/avoidance, accepting responsibility, distancing, confronting, and seeking social support coping strategies. But men mostly used escape/avoidance, accepting responsibility, confronting, and seeking social support coping strategies when dealing with anxiety. Positive reappraisal, avoidance, behavioural coping, and planful problem-solving support strategies do benefit men with infertility-related depression and stress (Faramarzi et al., 2013; Keshavarz, Mosalanejad, Ghavi, Abdollahifard, & Khodabakhshi Koolae, 2018).

A study conducted by Pasch and Sullivan (2017) demonstrated that men with infertility try to cope by socially isolating themselves from emotional problems, and women cope by sharing emotional reactions with people. According to Hall, Romeiro, Caldeira, Brady, and Timmins, (2017), research findings in the synthesis of qualitative studies regarding spiritual aspects of living with infertility shows that there is the need for spirituals needs and spirituality as a coping resource for infertility. Additionally, the findings of a cross-sectional survey conducted in Portugal, by Cunha, Galhardo, and Pinto-Gouveia, (2016) among 326 couples, established that 25.4% of them selected adoption as their first choice for having children. Another study's findings show that couples neither supported nor

disagreed with adopting a child (Ergin et al., 2018) and adoption in general was resisted by couples as well as their families because of patriarchal kinship system of continuity of lineage (Mumtaz, Shahid, & Levay, 2013). According to Arya and Dibb (2016), some adopted children usually leave their adopted parents when they grow up. This made them believe that adoption of children is not the best since the child is not their biological child.

In the Borno state of Nigeria, a descriptive study was conducted among 232 respondents; on coping strategies of clients with fertility challenges attending obstetric and gynaecological clinic of the University of Maiduguri Teaching Hospital. The findings revealed that 57% of males and 31.1% of females drink alcohol and smoke and indulge in drugs as escape/avoidance coping strategy, 79.2% of males and 50.3% of females avoid people who trouble them about pregnancy and children and 64.9% of males and 89.2% of females used praying to God to change their situation as a positive reappraisal coping strategy (Nelson, Danlami, Njidda, Hamina, & Jidda, 2019). Similarly, Kyei, Ankomah, and Manu, (2018) provided evidence in a study on coping with assisted reproductive technology where clients seeking infertility interventions in selected private health facilities in Ghana, used positive reappraisal, problem-solving, escape-avoidance, distance, confrontational, social support and self-control as coping strategies in dealing with treatment and self-management of infertility. In Pakistan, there was a study on rejection sensitivity, depression, self-esteem, quality of life, and coping styles among females and males experiencing infertility. The results revealed that there was a significant difference found between infertile males and females on

emotion-oriented coping and avoidance coping styles of infertility individuals. But rejection sensitivity, quality of life and avoidance coping was high among males and low among females whereas, depression and emotion-focused coping were high among females and low among males (Usman & Khan., 2019).

Volmer, Rösner, Toth, Strowitzki, and Wischmann, (2017) research findings indicated that women who were at a high risk of developing depression or anxiety tend to use active avoidance coping, while meaning-based coping are used by men who are at risk of developing anxiety. Men and women turn to benefit from active avoidance coping, and men employed purposeful problem-solving coping strategies when they were satisfied with the treatment (Szatmári et al., 2020). According to Vashkar, Ehsan, and Haseen, (2016), in Bangladesh, research findings revealed that 16% of couples avoid family gathering, 13% avoid friends, 10% avoid social parties of any kind and 14.49% said that they do not like to go out at all.

Men with infertility, are confronted with emotional and psychological trauma. In Romania, men with infertility demonstrate low self-esteem and feeling of guilt of denying their wives children (Joja, Dinu, & Paun, 2015). Men with infertility undergoing fertility treatment exhibit some high degree of anxiety and depression when the treatment fails (Chen et al., 2016). For example, in India, the male partner of infertile couples attending infertility clinic scored 20% and 10% for depression and anxiety respectively (Budh, Chaturvedi, Upadhyay, Bhatia, & Radhakrishnan, 2017). Similarly, a systematic review about male psychological adaptation to unsuccessful medically assisted reproduction treatment revealed that

men undergoing infertility treatment show the following psychological problems; depression, tragedy, and anxiety (Martins et al., 2016).

Research findings have suggested that both men and women express various emotions with regards to the news of infertility. Mclacchalan (2015) has reported that men diagnosed with infertility react in a state of shock as their first response because they are not prepared for such news. In Poland, both men and women have negative emotions regarding their diagnosis of infertility, they exhibit sadness and anxiety about their diagnosis, but men are more restrained in this respect (Nagórska, Bartosiewicz, Obrzut, & Darmochwał-Kolarz, 2019). According to Hanna and Gough (2016), men with infertility have this 'emotional rollercoaster' experiences concerning their condition, seeing it as distressing and pervasive with mixed emotions of happiness, anger, and jealousy especially when they see their friends conceiving without any effort. Men experiencing infertility border much, about the psychological problems their wives are facing (Nieuwenhuis et al., 2009). A study by Kim, Shin, and Yun, (2018), indicated in their research findings that wives experience a higher level of infertility stress, marital adjustment and depression than their husbands.

A study in Egypt, by Gamel, Hassan, and El-ezazy, (2019) among 50 men with infertility regarding male infertility and psychological repercussions, showed that 54.0% of the respondents had a moderate level of depression, 42.0% had a severe level of depression, 36.0% had a moderate level of anxiety, 30.0% had a severe level of anxiety, 46.0% had severe tension, and 40.0% had moderate tension. Psychological stressors have negative implications for men with infertility. In India,

a clinic-based cross-sectional comparative study was conducted among 60 couples. The findings revealed that the impact of emotional trauma and irrational belief was greater in male-related infertility couples, and somatisation in the unexplained group, whereas depression and interpersonal sensitivity were higher in female-related infertility couples (De, Roy, & Sarkhel, 2017).

Alosaimi et al., (2017), carried out a cross-sectional study, among 406 infertile couples about gender differences in perception of psychosocial distress and coping mechanism among infertile men and women in Saudi Arabia. The findings indicated that males suffered more from intrusive questions and pressure to conceive, remarry or get divorced, while their female's counterpart was stressed more from mental and emotional fatigue, marital conflict, attitudes of mothers-in-law or society, and persistent desire by the husband to have children. According to Thomas (2018), men with infertility displayed psychological distress after the diagnosis, which affects their everyday life. This, therefore, reflects the anxiety, depression symptoms, dyadic adjustment, and stress men with infertility face when going through first time ART treatment (Bártolo, Reis, Monteiro, Leite, & Montenegro, 2016). Due to the difficulty in expressing and communicating their emotional crisis, men suppress these emotions to support their wives (Wischmann, 2013). In Bangladesh, a study among couples indicated that both men and women experience stress, anxiety and depression; however, men were more stressed than women, and depression and anxiety were slightly higher in women than in men (Vashkar et al., 2016).

A study by Martins, Peterson, Almeida, Mesquita-Guimarães, and Costa, (2014), revealed that the stress men with infertility showed were related to their partner's low level and family support. In the Middle East, research findings demonstrated that couples with infertility experience depression, anger, frustration, shock, grief, lose of self-confidence, self-esteem and a sense of control over their destiny (Abu-Rabia, 2014). Some men experienced sorrowful event and feeling of disappointment after they were diagnosed of infertility (Parrott, 2014) and others reported anxiety, pain and frustration as they walked through the trajectory to become fathers (Joshi, 2020). In an attempt to deal with these psychological problems, a study conducted in South Africa revealed that men openly admitted that they shared their feelings of sadness to colleagues (Rouchou, 2013). Being diagnosed of infertility had a lot of emotional crisis noted among them include misery, social isolation, worthlessness, anger, denial, despondence, negotiation, frustration, feeling of guilt, and withdrawal (Drahansky et al., 2016).

According to Drahansky et al., (2016), couples who are diagnosed with infertility experience fury, feeling of worthlessness, anxiety, shock, confusion, disbelief, resentful towards each other and loss of self-confidence. Another study reported that whiles men expressed that they were feeling so sad due to infertility, the female also expressed feeling sad, afraid of getting divorced, and less feeling of ashamed of their husband and family (Coşkun Coşkun & Çavdar, 2018). A study conducted by Moyo (2013), in Zimbabwe about the indigenous knowledge systems and attitudes towards male infertility revealed that men with infertility had increased risk of suicide.

The importance of children in a marriage cannot be overemphasised. Thus the emotional states of couples with infertility need to be addressed. Dhont, (2011), provides evidence to support this since it was reported in her work that men who have infertility worries a lot about the lack of a child to continue his family lineage. This creates a whole lot of psychological burden on men, which in turn made them feel worthless as a result of their inability to father a child of their own to prove, their virility to the society (Hinton & Miller, 2013). According to Petok (2015), men who were diagnosed with infertility saw themselves to be fragile and ineffective, hence, trying to hide their condition from those who are closest to them. Another study even reported that in Rwanda, men who do not have offspring's specified that they were less motivated to work since they do not have children to support (Rouchou, 2013). It appears these men make such utterances due to the posture of members of their society. A lack of social support and systems which make men with infertility feel at ease to discuss their problems could be the cause. These men react this way in an attempt to evade their problem and to make them feel better. But the question is if they do not have to get money to treat themselves who else will do it for them? Infertility seems to have a negative impact on their sexual life, marriage-life, self-image, self-respect and future plans (Drahansky et al., 2016).

A study in Iran, by Samadaee-gelehkolaee, Mccarthy, Khalilian, & Hamzehgardeshi, (2016), among couple with infertility, shows that the act of sexual intercourse triggers their infertility. Another study conducted in Germany reported

that men who have infertility recalled it, the moment they saw friends carrying their babies or seeing women carrying babies in a stroller (Joshi, 2020).

According to Keramat et al., (2014), couples with a longer duration of infertility have low self-esteem, especially couples who infertility duration was more ten years (Ergin et al., 2018). A study conducted in Germany, by Wischmann et al., (2014), established that infertility has no impact on the self-esteem of men with infertility. This could be true looking at where this study is conducted, the support system available and the western culture. Wischmann (2013), conducted a study in which their findings have shown that men with infertility had decrease self-esteem. Quite apart from that, it was reported that men who do not have children have lower social status resulting in not meeting the social desired expectation as a parent in society (Abu-Rabia, 2014). Again, primary peer-reviewed study was conducted by Rouchou, (2013) and the study results revealed that in Bangladesh, men who are childless were demoralised which negatively affects their status as individuals who were capable of holding a job and they were disbursement for citizens who do not have a job henceforth, these men were deprived of financial means.

A study in Turkey, by Coşkun Coşkun and Çavdar, (2018), among 150 respondents concerning the effect of infertility upon the quality of life and self-esteem, revealed that self-esteem was lower in infertility women who were involuntarily married. Still, self-esteem and quality of life were higher in women who were employed; while infertility does not affect the self-esteem and quality of life of men with infertility, employment increase the point of self-esteem in male

and the way of marriage had no effects on the self-esteem and quality of life. Also, women who were raised in nuclear types of the family had a sense of self-esteem and increased the quality of life, while men who lived in the nuclear family had a higher quality of life. Coskun et al., (2018), again reported that the years to have a child did not affect the self-esteem of the man with infertility but the quality of life, while women who were afraid of getting divorced had both lower self-esteem and quality of life.

The behaviour of men with infertility is varied. This behaviour cuts across men all over the world. Several behavioural traits are linked to men with infertility. In Nigeria, having sexual intercourse outside your marriage, promiscuity, living in a polygamous home, lack of balance diet or eating hot food, alcohol abuse, elaborate weddings, gaining weight, sleeping face down and stress are mentioned as behavioural factors for infertility (Nieuwenhuis et al., 2009). The results of another study in Lagos, Nigeria concerning fertility knowledge, care-seeking behavioural pattern and attitudes of men with infertility among 226 men, revealed that 40.3% of respondents switched treatment attributing it to the competency of the new care places, 26.5% changed treatment due to failure of previous care, and 22.1% switched treatment due to exorbitant price (Enwuru et al., 2020). These authors added that their study findings revealed that 45.1% of the respondents had one sex partner, 27.9% had two sex partners, and 27% has more than two sex partners. This clearly shows that men who have more than one sex partners need to work extra hard to know the menstrual cycle of all the partners in order to father a child.

According to Hammarberg, Collins, Holden, Young, and McLachlan, (2017), men with infertility universally value parenthood, want and expected to become fathers, and inspired to have at least two children, but have inadequate knowledge about the limitation of male and female fertility. Men experiencing infertility were of the view that the right time to have children included having achieved personal maturity, completed one's studies, having a stable and loving relationship, having a partner who desires children, secured a permanent job, dependable income and a perfect potential co-parent (Hammarberg et al., 2017). Additionally, Dhont, (2011), indicated that men who were abusive and engaged in extra-marital affairs tend to be friendly towards their spouses after the diagnosis, which is contrary to this assertion. Rouchou, (2013), has indicated that in Ghana, there was an increased risk of unstable behaviour of both men and women who were diagnosed with infertility. Again men started seeking treatment for their infertility in the medical facility after marrying for more than five years with higher income (Dhont, 2011; Dhont et al., 2010)

The attitude people portray is usually due to available information and their beliefs. According to Koropeckyj-Cox and Pendell (2007) and Kessler et al. (2013), the general attitude towards men with infertility has been negative. For example, in Brazil, Castro et al. (2014), indicated that infertility is a woman's thing, a threat to masculinity/virility, and men with infertility are equated to silence. This suggests that men with infertility hardly talk about their health problems and, therefore, do not converse about their health allied to their infertility condition. In Iran, a survey conducted among 111 male and 59 female college students to assess their

knowledge, attitude and beliefs about infertility revealed that 43-79% of the male respondent's believed that infertility is a disease, which affects men's fertility as they grow old and that sexually transmitted infections, psychological stress, environmental factors, and genital tract infections cause infertility in men (Alaee, Yousefian, Talaiekhosani, & Ziaee, 2019).

The availability of modern medical equipment's and technological advancement in the 21st century does not stop people from having varied and interesting beliefs about infertility. According to Mclacchalan (2015), people still believe that infertility is a woman's problem. It is also interesting to note that in Kenya, people believe that men and women suffering from infertility had pre-marital sex, have refused to give birth, bewitched and slapped by a ring on a finger (Odek, Egesah, & Masinde, 2014). In 2014, Odek and colleagues established that having sex with older women, being circumcised, improper handling of babies at birth and using sperms for rituals are believed to predispose men to have infertility (Odek et al., 2014). Similarly, a qualitative study in Nigeria indicated that supernatural factors such as; being punished by offended witches, wizards or elders and powers of darkness, called 'juju' are believed to be the cause of infertility (Nieuwenhuis et al., 2009). In a cross-sectional study conducted to assess the awareness and attitude towards infertility and its treatment in a United States primary care population, the results indicated that non-Caucasian men mention that infertility was a severe condition, and decreases a man's quality of life (Gerhard, Ritenour, Goodman, Vashi, & Hsiao, 2014).

Evidence has also suggested that having a biological child confirmed the existence of an adult self, which satisfies the tradition and compensatory social functions for the individual and the family enrichment (Pacheco Palha & Lourenço, 2011). In Africa, these rituals of fathering a child seem to ensure the continuity of family lineage. As a result, men with infertility are not respected, not considered adults, excluded from leadership roles or from sharing their opinion in community meetings and are not treated as real “men” (Moyo, 2013). In Nigeria, findings revealed that children born through ART are; believed to have different behaviour pattern which is characteristic of the lineage, not accepted by culture and religious obligation forbids people to have children through an artificial process (Jegade & Fayemiwo, 2010). Similarly, in the Middle East infertility is still considered a woman’s issues and couple with infertility were a subject of gossip (Abu-Rabia, 2014). This attitude about infertility may lead to unpleasant consequences like divorce for some couples. Research evidence found among college students in Grenada to assess their knowledge, attitude and beliefs on infertility suggest divorce should not be an option for couples with infertility after one of them has been diagnosed of having infertility, but rather adopt a child to complement their marriage (Rouchou, 2015).

2.2.3. Social experiences of men with infertility

Social constituent is conceptualised as a specific set of tense events that may differently influence the mental health of people from different social environments.

Couples or individuals in society need social support one way or the other to function fully. Lack of social support or inadequate social support appears to instigate psychosocial problems for the couple. The social support men and women received from society seems to vary. A study demonstrated that men who received oral information concerning their treatment, prefer to receive emotional assistance from infertility clinicians rather than from mental health professionals, self-help support groups or friends (Fisher & Hammarberg, 2012). According to Kroemeke and Kubicka, (2018), in Poland, men with infertility show higher adjustment to infertility but benefited less from social support. In Iran, there was a lack of support for infertility clients (Zandi et al., 2017). A cross-sectional study in Japan among 411 patients who attend human reproductive clinic revealed that men with infertility received warm care from their wives, benefited from counsellors, and self-help group (Asazawa, Jitsuzaki, Mori, Ichikawa, & Shinozaki, 2018).

In the UK, a qualitative analysis of post on an online forum for male infertility revealed that men with infertility value male help from those with know-how, and that masculinity influences support-seeking requests (Hanna & Gough, 2018). Hanna and Gough (2016), indicated that men valued help coming from their colleague men who they can share their problems with. It appears coping with infertility is not an easy job, people suffering from it will go at any mile to seek treatment or support. In Kenya, a study reported that 31% sought support from friends, 1% sought solace from dead ancestors, 6% sought support from self-help group members, 10% either sought treatment from herbalist or resorted to prayers and 1% sought support from other sources (Odek et al., 2014). So what happens

when hopes from these sources of support prove futile? Where else will these people turn to again for support? Who will dry their tears off? Whilst there is social support for men and women suffering from infertility, a study in Nigeria shows that there is lack of support from family members, friends, neighbours and relatives (Nieuwenhuis et al., 2009).

In the UK, a study conducted on the gender differences in preferences for psychological treatment, coping strategies, and triggers to help-seeking among 347 participants, shows that men like support groups than women, used sex or pornography to cope with stress than women did and prefer a female therapist whereas women prefer female therapist (Liddon, Kinglerlee, & Barry, 2018). According to Mirzaei-Moghadam, Zaheri, Hasheminasab, and Roshani, (2019), study findings shows that social support has a significant impact in reducing stress in couple with infertility especially among those within 31-40 age brackets (Enwuru et al., 2020) and less than five years marriage duration (Nelson et al., 2019). This social support will seem to benefit couples who have a short duration of infertility. Sykes, Wills, Frings, Church, and Wood, (2020), conducted a multidimensional eHealth literacy for infertility among men with infertility. The findings show that men with infertility access online to know about any emotional and support network, collaborative and social networking site, and information-based website that would provide the necessary support system to put a smile into their face and more couple turned to access the internet to solve their infertility problem (Alosaimi et al., 2017). It was evident that couple with low-income level benefited less from

social support, leading to failure of treatment and sexual dissatisfaction (K et al., 2014).

It was reported in Malawi, that men with infertility were supported in a form direction by friends and family to a particular rural hospital because they were noted of providing effective treatment to people who had infertility problems (Parrott, 2014). Parrott added that couples with infertility problems were encouraged to put their faith in God and concentrate on prayers (Parrott, 2014). In the same Africa continent, peer-reviewed research indicated that men and women reported receiving support and advise from family (Rouchou, 2013).

A review of the qualitative research literature reveals that men with infertility are regarded as being in crisis, face stigma and have the desire for paternity (Hanna & Gough, 2015). Also, because men are the bread-winners of their families, this role changes in society as a result of infertility (Thorn, 2014). In Africa and Ghana inclusive, it appears culture and tradition have a lot of influence on the behaviour and thinking of its people. According to Naab and Kwashie (2018), men with infertility were traumatised as a result of traditional influence and pressures on their wives. This is typically how indigenous Ghanaian people behave, but what about Islam and Christianity? Do they also have an influence on couples and individuals with infertility?

In Africa, when a man marries, within months the wife must show signs of pregnancy, and if she failed the family members, neighbours, and friends would taunt her and start calling her name likes; witch, empty basket, male pawpaw, walnut or barren sister (Nieuwenhuis et al., 2009). Men are always free from

infertility. All the blame is on the wife, and these are the perceptions Africans have. A cross-sectional survey conducted among 226 men with infertility in Nigeria, shows that 23.5% of the participants have sex once per week, 34.1% have sex two times per week, 34.5% have sex three times per week and 8% have sex more frequently (Enwuru et al., 2020). This suggests that a lot of men do not have enough sex in order to impregnate their wives per WHO standards.

In Pakistan, study findings established that couple with infertility experiences less marital satisfaction and more marital conflict than a fertile couple (Gul & Mushtaq, 2018). Peterson and Buday, (2020), reported in their study regarding sexual coercion in couples with infertility: prevalence, gender differences, and associations with psychological outcomes among 105 participants shows that 37% of men being reported to be verbally pressured by their spouses to engage in coitus for the purposes of pregnancy than 12% of women. They added that men experience sexual coercion during intercourse for pregnancy was related to psychological distress and low relationship adjustment. A study in China, by Luk and Loke, (2019) reported their findings that significant proportion of women than men reported that their spouse did not comprehend how the problem of infertility affect them and had disturbance which drove them apart in their relationship. Also, significant men reported to considered sex life to be lacking in quality in their union.

A study conducted in South Africa, by Zarrabi and Kruger,(2018), in their findings, they reported that men with infertility were shunned from the community and also their families and which can lead to suicide among this infertility people.

According to Lu et al., (2019) their study findings established that men with infertility feel grief and loss connected to his inability to father a child and have a family, have problems of interacting with their spouses, leading to emotional isolation from their wives. Also, they reported that men with infertility viewed their primary role as problem solvers, which consequences can lead to men frequent self-blaming, loss of manhood, and feelings of guilt and isolation. According to Hadley, (2018) men with involuntary infertility faces the following challenges such as upbringing, economics, the timing of events, sexual orientation, partner selection, bereavement, interpersonal skills, relationship formation and dissolution and assumption of fertility. Sykes, Wills, Frings, Church, and Wood, (2020), reported in their multidimensional eHealth literacy for infertility showed that men with infertility experience social stigma and isolation in their society. Men with infertility were viewed as a failure of masculinity, as stigmatising and silencing, which causes isolation and traumatic experiences (Hanna & Gough, 2020). In view of this, infertility was still seen as a women issues leading to marginalisation of men with infertility.

Qualitative study findings established that men with infertility had a strong desire to be fathers due to everyday ridicule within the community, which is threatened masculinity (Thomas, 2018). According to Zandi et al., (2017), in Iran, a study conducted concerning confronting infertility in Iranian clients: a grounded theory approach revealed that clients protect personal and family identity, facing cultural-economic dilemma's, frustration, continuing threat to identity, and insecurity about personal and family identity. Another study conducted on effects

of gender roles, child wish motives, subjective wellbeing, and marital adjustment on infertility-related stress, established that Hungarian men demonstrate emotional wishes to have a child than men in the German reference group. Also, Hungarian men desired the need for parenthood than men from the Canadian reference group and all this group of men were within 25-49 years bracket (Cserepes, Kollár, Sápy, Wischmann, & Bugán, 2013).

In Zimbabwe, a research finding indicated that men with infertility experience domestic violence, divorce, frustration, discomfiture, social discrimination, social stigma, pain, social ostracism, marital instability, and overtones of failure (Moyo, 2013). It was interesting to know that in Bangladesh, a study conducted there indicated that none of the men with infertility reported any marital insecurity but few women do so, but 36% of the women reported to have been pressured frequently by her husband family members to have children, and 28.57% of men reported the same problem (Vashkar et al., 2016). In view of this, Keramat et al., (2014), study findings indicated that the higher education level and income of men with infertility were satisfied with their marital relationship thus, shortening their infertility duration. It was also described that in Middle Eastern society, men drive social recognition of their masculinity and legitimise by having children which proved their virility and sense of honour (Abu-Rabia, 2014).

Abu-Rabia reported that couple with infertility were cursed, shunned or criticised, excluded from social events, and mistreated leading to lose of self-esteem (Abu-Rabia, 2014). Though couples face a lot of psychosocial consequence as a result of infertility, women were more affected than men. A study in Pakistan,

among couple with infertility, the results established that women experience abuse, exclusion and stigmatisation, while men only experienced minor taunting from friends. Again research findings indicated that infertility weakens the marital bonds of affected women with harsh psychological, social, emotional and physical consequence, whiles weakening the marital bonds, did not affect men social status, security or power (Mumtaz et al., 2013). Rouchou, (2013), report findings in a primary peer-reviewed signposted that in South Africa, men stated that they were mocked as being a failure, “castrated cows”, “bad swimmers”, “shooting blanks”, “having water penis” to humiliated and isolate them. The study also added that men might marry women to bear offspring’s, whiles women sleep around in anticipation of reversing their infertility (Rouchou, 2013).

It seems most men with infertility have difficulty in accessing treatment due to financial constraints. A study conducted in Egypt shows that there is a big difference in accessibility and availability to ART treatment between the developed and developing countries, between the rich and the poor in the same country (Serour & Serour, 2017). A mixed study in Kenya, conducted by Odek et al. (2014), reported that 77% of respondents cited poverty as an economic consequence of infertility, 34% of the respondents interviewed were concern about the possibility of less or no inheritance as a result of childlessness, 11% expressed lack of concern with the notion on inheritance, 49% find it difficult to concentrate on their work. Therefore, infertility seems to be a real heavy burden on men in Africa. Some of the respondents in that study lamented on the financial exploitation by herbalists to be the economic consequence of infertility (Odek et al., 2014). In Nigeria, it is

costly to carry out investigations and treatment of infertility, whether it is biomedical treatment, traditional and faith-based treatment (Nieuwenhuis et al., 2009). Most often, men with infertility move from one hospital to another, one herbalist to the other and one faith healer to another and all these movements demand financial resources.

A qualitative study conducted in Uganda, regarding perceptions, expectations and challenges among men during in vitro fertilisation treatment in a low resource setting, shows the following findings; fear of treatment failure, inadequate sensitisation, feeling insignificant, IVF as an emotional bridge, societal influence on IVF treatment experience, social support during IVF treatment and a financial burden (Zaake, Kayiira, & Namagembe, 2019). Couples going through this treatment procedure actually need both family and friends support for it to be successful. This support can be a form of emotional and financial support.

According to Raheem, Rees, and Ralph, (2019), their study report shows that treatment of infertility depends on the cause. They indicated that treatment preferential available couple with infertility include; assisted reproductive technology (ART), adoptions and donor insemination, surgery, intracytoplasmic sperm injection (ICSI), microsurgery, key-hole surgery or embolisation, hormonal medicine, micro-TESE and the use of antibiotics therapy. Though the desired to the used modern method for conception was good, a study reported that the cost of care for male infertility insurance package was lacking (Leung, Henry, & Mehta, 2018). According to Leung, Henry and Mehta, the cost for treatment of male infertility for IVF and ICSI were approximately \$ 12, 500 for an individual in the US (Leung et

al., 2018). Study evidence shows that in Iran, treatment of infertility was adversely associated with low social support and sexual satisfaction (Keramat. et al., 2014), especially among men with infertility above 50 years of age (Enwuru et al., 2020). Sexty et al., (2016), conducted a cross-sectional study among 750 couples concerning the cross-cultural comparison of fertility specific quality of life in German, Hungarian and Jordanian couples attending a fertility centre, their results revealed that in Hungary patient's health insurance covered diagnostic procedures and five times IVF or six-time artificial insemination treatment as well as national health insurance fund support up to 70% medical treatment. While in Germany, health insurance companies covered the cost of diagnosis and 50-100% medication treatment. This insurance package is very good as it relieved the burden of the cost of treatment on those who cannot afford this exorbitant treatment can enjoy. Can Ghana, emulate Germany and Hungary insurance package for infertility couples? If this is implemented can put a smile on the faces of couple with infertility in Ghana.

According to Mustafa, Hadi, Iizam, and Aliya, (2019), medical treatment used for infertility couple includes; medical devices, surgery, fertility medications or a combination of some of them. The cost of medical treatment pushes some of the patients who cannot afford money for medical procedures into the used of local treatment. Similar Study in Iran, by Jahromi, Mansouri, Forouhari, Poordast, and Salehi, (2018) research results shows that medical treatment for infertility includes; intrauterine insemination (IUI), in vitro fertilisation (IVF), intra-cytoplasmic sperm injection (ICSI) and pharmacological medication such as Anastrozole, HCG,

Testosterone, vitamins/antioxidants, Clomiphene (Glazer, Anderson-Bialis, Anderson-Bialis, & Eisenberg, 2020). In the USA, a study conducted among participants concerning the used of out-of-pocket costs of men undergoing infertility care and associated financial constrain, established that out of the 111 participants, 16% of them spent more than \$50, 000 dollars on treatment, 16% spent between \$30, 000 and \$49, 999, 30% spent between \$15, 000 and \$29, 999, and 37% spent less than \$15, 000 on treatment. 47% of these patients reported financial constrain during the cost of treatment (Elliott et al., 2016). This implies that some of the patients will incur debts during the period of seeking treatment. Can an ordinary Ghanaian who have infertility problems use the services of the modern method of conception of a child?

A study in Germany and Denmark revealed that men with infertility desire for care but uninvolved in the treatment process and push aside and focused on the woman and the perception of roles function as men were not involved in the treatment process respectively (Schick, Rösner, Toth, Strowitzki, & Wischmann, 2016; Sylvest, Fürbringer, Schmidt, & Pinborg, 2016). It appears that this attitude of health provided towards men with infertility is a big problem. It seems infertility affects only the women and not the men. Could it be among the reasons why men with infertility do not report at the hospitals and clinics to get their problem solve? A study reported that men with infertility frequently have a challenges to treatment, couples with frustration concerning lack of information about male infertility, and difficulty of finding a good resource center regarding male reproductive health, as well as scarcity of male reproductive health specialists (Lu et al., 2019).

In China, a study was conducted among couples concerning dyadic approaches to infertility stress, marital adjustment, and depression on quality of life in infertile couples. The results indicated that financial burden of infertility treatment was handled by 84.3% of their wives and 94.2 of their husbands and had been treating infertility for more than two years now (Kim et al., 2018). According to Gamel et al., (2019) their study findings indicated that 90.0% of men with infertility treated their infertility for more than five years, in which 80.0% of the respondents used traditional treatment and 20.0% used assisted reproductive technology (ART), while in Saudi Arabia, 38.5% of male and 51% of female reported using alternative medicine (Alosaimi et al., 2017). Zandi et al., (2017), reported in their findings that there were difficulty and distress during treatment leading to abandoning infertility treatment among couples. In another point men lamented that they feel at times they were marginalised as onlookers, detached from or humiliated by medical procedures and services, henceforth refusing them the opportunity to provide the needed support for their partners/spouses (Hinton & Miller, 2013). Men with infertility in Zimbabwe turned to used traditional herbs and traditional healers' divination to treat their infertility (Moyo, 2013). Primary peer-reviewed research findings indicated that in Nigeria, the current cost of infertility investigation and treatment was expensive as well as traditional healers are more expensive than faith-based healers (Rouchou, 2013).

According to Enwuru et al., (2020), in Nigeria, a study was conducted among men with infertility concerning fertility knowledge, care-seeking behavioural pattern and attitude of infertile men in Lagos, established that 14.2%

do not know the factors responsible for infertility, 2.2% mention the gods/witches, 11.1 % mention male and female factor, 45.1% mention female factor and 27.4% mention malefactor. This seems to suggest that a lot of people still have it in mind that infertility is a female sickness. It is interesting to know that similar research findings in Japan, revealed that 43.3% of participants mentioned that the cause of infertility was unexplained, 10.3% of them mention male factor, 15.9% of them mention female factor, 12.1% of them mention male and female factors and 18.4% of them mention that they were uninformed about the cause of infertility (Asazawa et al., 2019). A study in Egypt showed that 36.0% indicated that infertility was caused by sperm production problem, 28.0% indicated blockage of sperm transportation as a cause of infertility, 20% was hormonal problems, 14.0% were caused by male-related infertility and sexual problems, and 2.0% indicated sperm antibodies problems as the causes of infertility (Gamel et al., 2019). It appears like respondents could have provided different options if they were allowed to do so, but they had no option than to react to the option available to them.

Odek, Masinde, Egesah, Irungu, and Munyae, (2016) and Dhont, (2011), study findings reported that male having too many sexual partners, being circumcised, too much work, too much cycling, improper handling of a child at birth, using sperm for rituals, having sex with older women, blood not rhyming, parental curse, vowing never to have a child, God's plans or decision, rituals performed with a cloth, a bad omen from an evil person, witchcraft, and having sex before marriage were mention as the sociocultural factors that predisposed men to infertility. A similar study done by Dhont et al., (2010), in their findings, they

indicated that traditional beliefs, medical problems and I do not know, to be the causes of male infertility. A side the sociocultural causes of infertility, medical expert attribute the cause of infertility to the following risk factors or causes; smoking, age, obesity, diet (alcohol and caffeinated beverages), occupational exposure, electronic devices, stress, scrotal temperature, reactive oxygen species, male reproductive tract infections, ejaculatory disorders, varicocele, endocrinal disorders, and immunological factors (Kumar Mahat & Arora, 2016).

Rouchou, (2015) conducted research among college students regarding the knowledge, attitudes and belief about infertility, the students mention; blocked fallopian tubes, genetic, abnormal sperm production and/ or function, irregular menstrual cycle, and I did not know as the causes of infertility. Rouchou reported that both students also believed that infertility was due to God will and do not know whether infertility can be caused by voodoo means (Rouchou, 2015).

A study done by Glazer, Anderson-Bialis, Anderson-Bialis, and Eisenberg, (2020), who reported in their findings indicated that 2.3% were motivated to seek information from family/friends. Ethnography study in Malawi, narrated by Parrott, (2014), showed that men with infertility and their wives were motivated to seek help after the effort of different herbalist had failed, in addition to the encouragement from family and friends to visit the hospital directly.

2.2.4 Summary of the Literature Review

Men with infertility experiences psychological trauma as a result of their condition. This condition affects their attitude/beliefs, behaviours, emotions and their coping skills. Some men with this condition exhibit sadness, anxiety, anger,

depression and other symptoms. To live with this condition men with infertility adapt to different coping skills such as avoidance, self-controlling coping, playful problem-solving and distancing to deal with their infertility. In this 21st century, people still believe that infertility is a woman's problem and affect men fertility as they grow old. However, literature indicated that promiscuity, having sexual intercourse outside marriage and elaborate wedding constitute a behavioural factor for infertility.

Social support is very crucial to men with infertility as a result of the psychological problems they are facing. When they received this support from the families, friends and relatives than they can be integrated into society very well. Literature showed that men with infertility benefited from the warm care they received from their wives, counsellors and self-help group. However, in other parts of Africa, there is a lack of social support from families and friends towards men with infertility.

Culture plays a very vital role in the lives of Africans. Men with infertility are traumatised as a result of traditional influence and pressure on their wives. They have been called with several names and stigmatised in society as a result of not able to father a child. Their wives have been taunted and called several names such as empty basket, male pawpaw etc. and this makes the society uncomfortable for men with infertility to survive.

Financial capability is the remedy for men with infertility to enable them to go through treatment. However, poverty landed some men with infertility into the

hands of traditional and faith-healer, who extort money from these vulnerable people.

CHAPTER THREE

METHODOLOGY

This chapter presents a description of the methods employed. It covers the study design, study setting, target population, inclusion and exclusion criteria, sampling technique and sample size, a tool for data collection, data collection procedures, methodological rigour, data management, data processing and analysis, and ethical consideration.

3.1 Research design:

According to Kumar (2011), the research design is a procedural strategy adopted by the researcher to answer questions validly, objectively, accurately, and economically. Research design is the policies and techniques for research that span the decisions from broad assumptions to specific methods of data collection and analysis (Creswell, 2009).

The study adopted a qualitative research approach, employing an exploratory descriptive study design. The qualitative method allows the researcher to explore and understand the meaning individuals or groups ascribe to a social or human problem (Creswell, 2014). According to Boateng (2018), the qualitative method also explores the meanings, attitudes, values, and beliefs people associate with a phenomenon to establish a better understanding, rather than to test to either support or disprove a relationship. A qualitative approach was used in this study because the researcher's purpose was to discover the detailed experiences of men with infertility.

Wood and Ross-kerr (2011), indicated that explorative descriptive designs allow the researcher to engage participants with interviews to obtain an understanding of a phenomenon from the participants' perspective. The explorative descriptive design was, therefore, be used to study this topic: "psychosocial experiences of men with infertility" since little was known about it in the study setting.

3.2 Research setting

The Northern region is the second-largest region in Ghana, in terms of landmass covering 70,384 square kilometres, where the Tamale Metropolitan Assembly (TAMA) is located (Ghana Statistical Service, 2013). The northern region has Tamale as its capital city with TAMA been one of the local units within the capital (Ghana Statistical Service, 2014; Ghana Statistical Service, 2013). The TAMA lies between latitude 0°36 and 0°57 West and 9°16 and 9°34 North as the locus of the region. The Metropolis is surrounded by Mion district to the east, Savelugu to the north, East Gonja to the south Central Gonja to the south-west, and the Sagnarigu district to the west and north (Ghana Statistical Service, 2014). The Tamale Central Sub-Metro and Tamale South-Metro comprise the Tamale Metropolis. The Metropolis is made of 371, 351 population with 112,143 to 371,356 female and 111,109 to 185, 995 male (Ghana Statistical Service, 2012, 2014; Ghana Statistical Service, 2013). The people living in this Metropolis consist of diverse ethnic groups such as Ewe, Mamprusis, Guan, Frafra, Dagombas, Gonjas, Akan, Dagaabas, Mande, Nanumbas, and Ga-Dangme. The main ethnic group is the Dagombas. Islamic religion (80.5%) and Christians (11.5%) are the predominant

religion in the Metropolis (Ghana Statistical Service, 2014; Ghana Statistical Service, 2013). The two weather condition patterns for this region are; the raining season which starts from April to October and the second season is the dry season which usually begins from November to April. The region is prone to cerebrospinal meningitis (CSM) due to low humidity and a higher temperature of 40⁰ c. The inhabitants of the region are engaged in trading, craftwork, and farming. The region has a teaching and regional hospital. The five Northern regions refer their cases to the Tamale Teaching Hospital located in the Metropolis.

The Tamale Teaching Hospital is located in the eastern part of the Metropolis occupying 490, 000 square meters. It was upgraded to teaching hospital in 2005 when it was commissioned by the head of state Lt. Col. I. K. Acheampong, in 1974 as a regional hospital. The teaching hospital served as a significant centre for referred cases from health facilities since it is the only contemporary tertiary level hospital in the Northern, Upper East, part of Brong Ahafo and Upper West region. It also serves as a teaching facility for the School of Medicine and Health Sciences (SMHS) of the University for Development Studies (UDS), Tamale. It provides “clinical teaching for Nursing and Midwifery Training Colleges both within and beyond the Metropolis. The hospital has a bed capacity of about four hundred (400). It offers specialist services in the following areas: Obstetrics and Gynaecology, Surgery, Orthopaedics and Trauma, Internal Medicine, Child Health, Pathology, Ear Nose & Throat, Eye Unit, Endoscopy, Neurosurgery, Anaesthesia & Intensive Care Unit, Psychiatry, Dentistry, Pharmacy, Laboratory, Out-Patient Unit, etc. The Obstetrics and Gynaecology department has a total of 94 Midwives,

and 120 Nurses as at the end of the year 2016 with a total bed complement of 122. However, labour, prenatal, and postnatal wards together have a 60-bed capacity .

Tamale Metropolis was preferred to other places because of personnel experiences I gained from friends and a brother who were experiencing infertility. Again this metropolis was preferred because of its proximity to the researcher.

3.3 Target Population

The target population for this study were men who had fertility problems by self-report within the Tamale Metropolis.

3.3.1 Inclusion Criteria

Men who are 18years and above, and consented to the study, understand and speak Dagbani or English language, having fertility problems by self-report were included in the study.

3.3.2 Exclusion Criteria

Men who have fertility problems, with obvious emotional crises were excluded from this study.

3.4 Sampling Technique and Sampling size

According to Boateng (2018) sampling “is a process of selecting samples from a group or population to become the foundation for studying a population to obtain data to address a research problem” (p.184). The sampling technique that was used for this study was purposive sampling. This technique was used because it allows the researcher to select participants of homogeneity in features that have rich information regarding the purpose statement of the study. Purposive sampling: is

a type of non-probability sampling technique where the researcher selects all possible participants that fit particular criteria, using the various method (Neuman, 2011). The technique also allows the researcher to choose participants who are knowledgeable about issues under study (Kumar, 2011; Polit & Beck, 2010). Neuman (2011), further explained that purposive sampling used the judgment of key informants in selecting cases, or it selects cases with a specific purpose in mind. The phase when new data collection would show no new developing theme would be the point of data saturation (Lacey, 2015). Hence, by the fourteenth participants, data saturation was reached, thus amounting to a sample size of fourteen (14) self-reported men experiencing infertility.

3.5 Data Collection Tool

A Semi-structured interview guide (appendix E) was used to collect information from the study participants. A semi-structured interview guide is a tool or instrument with open-ended questions (Kumar, 2011; Tod, 2015). Tod (2015), explained that a semi-structured interview guide allows some degree of flexibility, control, and direction of the interview process. The flexibility nature of the semi-structured interview guide enables the researcher to explore by probing to get new and exciting responses. The semi-structured interview guide would comprise of two sections. The first section would elicit the respondents' demographic data, and the second section would be guided by open-ended questions and probes, to get rich data on the topic of study. The questions would be formulated based on reviewed related literature following the objectives of the study. The instrument was pre-tested at one of the private clinics (Amin Scientific Clinic) in Tamale Metropolis

with two men having fertility problems, for correction of any ambiguities before using the guide for the actual data collection.

3.6 Data Collection Procedure

This study explores the psychosocial experiences of men with infertility via qualitative face-to-face in-depth interviews. To answer the research questions of this study, the semi-structured interview guide was for the interview process. An introductory letter (appendix B) from the School of Nursing and Midwifery of the University of Ghana and ethical clearance (appendix A) from the Noguchi Memorial Institute for Medical Research Institutional Review Board (NMIMR-IRB) of the University of Ghana was presented to the clinics. This clinic is where the study was conducted and sought authorisation as a site for selecting respondents' for this study. The researcher then contacted the management of the clinic with an authority letter permitting the usage of the clinic and the rationale of the study. In the clinic, rapport was established with the health providers (doctor and nurses) of the facility, and the purpose of the study was explained to them to gain cooperation. The researcher gave an introduction and established rapport with the men who had fertility problems. The rationale for the study was explained to them and other relevant information about the research. The men's contact numbers and home addresses were taken with their permission, and the researcher made a follow-up later to schedule appointments for interviews. However, the researcher did not get the recruitment of the participant effortless. Five participant initially declined to take part in the study after the researcher explained the purpose of the study to them. But they changed their minds later and gave permission to be

included in the study. The consent form (appendix C) was explained to the participants to sign or thumb-print. They also signed the volunteer agreement form (appendix D) to indicate the request to participate before the interview process. A face-to-face interview was conducted at the convenience of the participants, and with their permission audio recorded. The interview was conducted either in the English language or Dagbani (local dialect) because the researcher fluently speaks and understands the languages. Field notes were also sent to take note of non-verbal gestures of participants. Each interview lasted from 40 minutes to one hour. The help of a clinical psychologist was not needed since few of the participants who were a bit emotional about their challenge were able to be handle as soon as the current researcher paused the interview session and gave them some reassurance.

3.7 Data Management

Data management in qualitative research is reductionist, which was to say, it involved converting large masses of data into smaller, more manageable segments (Polit & Beck, 2010). The information gathered from the field that was the interview was recorded with audiotape, and transcribed verbatim, in addition to field notes. The information recorded was downloaded into a personal password-protect computer for safekeeping with a security code for confidentiality. The information collected was shared with my supervisors, and matters arising from the interview was discussed, and only my supervisors had access to this data. To ensure privacy, the researcher transcribed the interview himself and avoided others from having access to the information. During transcription of the interview, the researcher listened very carefully to identify any errors and correct them, using

Microsoft word to do the typing. All the hard copies of the transcripts and field notes were kept in a file under lock, and key for storage. The recorded interview was played back to cross-check the typing errors or omissions and correct them. A code was used to label the participant's name to ensure anonymity. At the same time, soft copies of the research work were copied into pen drives, emails, google drive, and CD with a password to serve as a backup for future use, and security purposes. The transcribe data was printed, in addition to the field note and consent form, and file them in a labelled file.

3.8 Data Processing and Analysis

Qualitative data analysis, according to Creswell (2009), entails collecting open-ended data, based on asking general questions and developing an analysis from the information supplied by participants. Qualitative data analysis is a “method of fitting data together, of making the imperceptible obvious, of linking and attributing consequences to antecedents. It is a process of conjecture and verification of correction and modification, suggestion and defense” (Morse & Field, 1995, as cited in Polit & Beck, 2010, p.464). The researcher read the transcribe data several times to immerse himself into the data, scrutinise the data, and deliberately search for meaning and in-depth understanding. The data was analysed using thematic content analysis. According to Braun and Clarke (2006), thematic content analysis entails identifying, analysing, and reporting patterns within data, allowing the researcher to organise, and describe data set in rich detail minimally. Since little was known about the phenomenon of study, the thematic content analysis would suit this study because of the exploratory, and contextual nature of the data.

All the interviews that conducted were transcribed verbatim by the research after each meeting. The transcribed data were read several times to ensure that the meaning and depth of each interview was understood. The crucial statements and related ideas were identified and assign codes (appendix F) based on the objectives of the study, and this was done concurrently with data collection. The transcribed data was summarised into sentences and phrases or themes. The emerging themes and sub-themes were review in the analysis process. The field notes from participants were quoted to back the themes. Codes were developed and assigned to the main theme by using numbers or keywords. The coding themes were categorised into different information (Kumar, 2011). These themes and sub-themes that emerged were concurrently revised in the analysis process as supervisors of the research reviewed them. It was to ensure that the right themes and sub-themes are developed. The field notes jotted from the interviewed session were analysed and quoted verbatim to support the main themes and sub-themes which were organised under the conceptual framework, and objective of this study.

3.9 Methodological Rigour

Trustworthiness or methodological rigour or integrity is very crucial when it comes to evaluating the findings of a qualitative study. The researcher used the framework by Guba (1994), and Lincoln and Guba (1985) to ensure the trustworthiness of the study. In qualitative paradigms, the terms Credibility, Neutrality (Confirmability), Consistency (Dependability), Applicability (Transferability), and authenticity are the essential criteria for quality.

Confirmability refers to objectivity. It is the potential for congruence between two or more independent people about the data's accuracy, relevance, or meaning (Polit & Beck, 2010). To ensure confirmability, the researcher presented the findings that must reflect the participants' voice and the condition of the research, and not the biases, impetuses, or viewpoints of the researcher. Also, independent coding of the data during the concurrent analysis of the study ensures the confirmability of the study. Again, the keeping of audit trails of the research process, and member checking assisted in establishing confirmability of the research work.

Credibility refers to confidence in the truth of the data, and interpretations of them. In qualitative research, the researchers must strive to establish confidence in the truth of the findings for the particular participants and contexts in the study (Tracy, 2013). Lincoln and Guba (1985), pointed out that credibility involves two aspects: first, carrying out the study in a way that enhances the believability of the findings, and second, taking steps to demonstrate credibility to external readers. For the credibility of the study, prolonged engagement of the participant during the interview was ensured, member checking of the data to represent a true reflection of the participant, and peer debriefing. According to Polit and Beck (2010), peer debriefing simply involves sessions with peers to review and explore various aspects of the inquiry. The researcher engaged one or several colleagues who hold impartial views of the study to examine the researcher's transcripts, final report, and general methodology.

Transferability refers to the extent to which qualitative findings can be transferred to or have applicability in other settings or groups. Lincoln and Guba (1985), explained that the investigator has to provide adequate descriptive data in the research report so that readers can evaluate the applicability of the data to other contexts. To ensure the transferability of the study, a detailed description of the setting, the approach used, and the features of the participant were captured in the study. The researcher also ensured that the findings of the study were realistically applied to other situations that are similar to the one being studied.

Dependability, according to Polit and Beck (2010), refers to the stability (reliability) of data over time and conditions. Dependability was achieved through the audit trail that was by using the same interview guide, and audio recorded for all the participant's couples with the same method of analysis. The researcher ensured immediate transcription of the data to make sure the meaning of the information was not misinterpreted to assure confirmability in addition to the research findings to reflect participant experience. Field notes and data collected were discussed with the researcher's supervisors to get the correct interpretation of the information created.

Authenticity refers to the extent to which researchers fairly and faithfully show a range of realities (Polit & Beck, 2012). Authenticity emerges in a study when the researcher report conveys the feeling tone of participants' lives as they are lived (Polit & Beck, 2010). To achieve authenticity, creative writing was employed to invites readers into a vicarious experience of the lives being described and enabled readers to develop a heightened sensitivity to the subjects being

portrayed. There is some sense of mood, experience, feeling, language, and context of those lives.

3.10 Ethical Consideration

Ethical considerations were associated with moral principles that deal with issues of right and wrong in the society or community, and among groups (Babbie, 2015). Ethical approval (appendix A) was acquired from the Institutional Review Board of the Noguchi Memorial Institute for Medical Research (IRB-NMIMR) for the study to be conducted. An introductory letter (appendix B) from the School of Nursing and Midwifery of the University of Ghana and also permission was sought from the Natural Solution Herbal Clinic to carry out the study in the Metropolis. The rationale of the study was explained to participants including the right to withdraw from the study at any time or decide not to answer a particular question before they consent (appendix C) to participate in the study obtained.

To ensure confidentiality, the purpose of the study was explained to the participants as well as written consent for the study. The participants were assured that the information collected was used for the research. The researcher and his supervisors were the only people to had access to the participants' data. The information gathered was kept under lock and key or electronic version passwords to maintain confidentiality. Informed consent provides prospective participants with the information needed to make a reasoned decision about participation, usually involve signing a consent form to document voluntary and informed participation (Polit and Beck, 2010). The researcher also ensures beneficence and justice as a way of protecting research participants (Marczyk et al., 2005).

Anonymity was ensured by labelling each participant's information with a code such as MF1, MF2, and MF3, etc. to ensure privacy during the transcription process, and analysis. A clinical psychologist was arranged for participants who were at risk of an emotional breakdown during the interview session at the expense of the researcher. The researcher would also ensure that some incentives were given to the research participant as a form of motivation for their participation.

To ensure privacy, the participants would decide where the interview session would take place that is whether their homes or any place that was convenient to them without the presence of an unapproved person. The interview transcripts, demographic data, and field notes were identified by each participant's pseudonym.

In summary, this is qualitative research, employing exploratory, descriptive design. Participants with self-reported fertility problems were purposively selected to take part in the psychosocial experiences of men with infertility in the Tamale Metropolis. The interview session was conducted using the English language and Dagbani (local dialect).

CHAPTER FOUR

FINDINGS

This chapter presents the findings of the study. The demographic characteristics of the participants are reported first followed by themes and subthemes. For confidentiality and privacy purposes, participants' names have been substituted with pseudonyms. The nine (9) themes and thirty-three (33) sub-themes are presented and supported with verbatim quotes from participants.

4.1 Demographic characteristics

A total of fourteen men were interviewed in this study. All the participants were Ghanaians who were either in a monogamous or polygamous relationship. The age for participants ranged between the ages of twenty-four to sixty-five years. Eight participants had attained tertiary education; three had obtained a bachelor's degree, two attained diploma and two obtained certificates in various areas. One of the participants attained senior high school, three completed junior high school, and two of the participants completed primary school. With their employment status; eleven (11) of them were employed, while two (2) were unemployed, and one (1) was a student. Twelve of the participants were Dagombas, and other tribes were Frafras and Komkombas. Thirteen of the participants were Muslims, and only one was a Christian. For the duration participants' had experienced infertility, five of them had ranged between 1-3 years and 4-6 respectively, three of them experienced

infertility for 7-10 years, and one experiences above 11 years. Details of the demographic characteristics are in table 4.1

Table 4.1
Demographic data of Participants

Demographic data	Category	Frequency (n=14)	Percentage (%)
Age (years)	21-30	3	21.43
	31-40	7	50.00
	41-50	3	21.43
	51and above	1	7.14
			Total 100
Ethnicity	Dagomba	12	86
	Frafra	1	7
	Komkomba	1	7
			Total 100
Level of education	Tertiary	8	57.14
	SHS	1	7.14
	JHS	3	21.43
	Primary	2	14.29
			Total 100
Employment status	Employed by private	1	7
	Employed by government	5	36
	Self-employed	5	36
	Student	1	7
	Unemployed	2	14
			Total 100
Duration of infertility	1-3	5	36
	4-6	5	36
	7-10	3	21
	11 and above	1	7
			Total 100
Religion	Islam	13	93
	Christianity	1	7
			Total 100

Source: Transcribed data (2020)

4.2 Organization of Main themes and Sub-themes

Using thematic content analysis, nine main themes and thirty-seven sub-themes were derived from the data after analyzing fourteen interview transcripts. Among the nine main themes, four of them were consistent with the objectives of the study, and the constructs of the biopsychosocial model. Four of the sub-themes were directly grounded in the framework. On the other hand, five other main themes and thirty-three sub-themes emerged after content analysis. The themes and sub-themes are presented in table 4.2.

Table 4.2

Themes and Sub-themes

S/no	THEMES		SUB-THEMES	CODES
	Theoretical	Emerged		
1.	Psychological experiences of men with infertility		<ul style="list-style-type: none"> • Attitude/Beliefs • Behavioural factors • Emotional factors • Coping skills • Mental disturbance • Self-esteem • Life perceptions • Psychological triggers/reminders 	Psychofac
2.	Cultural factor associated with men experiencing infertility		<ul style="list-style-type: none"> • Masculinity • Sexual desire • Promiscuity • Care for Wife • Desire to have biological child 	Culfac
3.	Social factors affecting men experiencing infertility		<ul style="list-style-type: none"> • Social pressure • Social stigma • Social isolation • Cost of treatment 	Socfac
4.		Marital factor affecting men experiencing infertility	<ul style="list-style-type: none"> • Marital conflict • Pressure from wife 	Marfac
5.		Opinion of the cause of infertility	<ul style="list-style-type: none"> • Attributing to God • No knowledge about the cause • Spiritual cause 	Opiocau

S/no	THEMES		SUB-THEMES	CODES
	Theoretical	Emerged		
6.		Motivational factors to seek help	<ul style="list-style-type: none"> • Advertisements on TV/radio • Personal decision • Significant others decision • Failure of local treatment 	Motfact
7.		Treatment of infertility	<ul style="list-style-type: none"> • Medical treatment • Local treatment • Faith-based 	Treat
8.		Treatment preferential	<ul style="list-style-type: none"> • Medical treatment • Local treatment • Desire to used modern method to conceive • Feeling disappointed on a service provider 	Trepre
9.	Social support available for men experiencing infertility		<ul style="list-style-type: none"> • Moral support • Spirituality and faith-based support • Financial support • Treatment support 	Sosup

Source: Transcribed data (2020)

4.3 Psychological experiences of men with infertility

These are mental and emotional challenges men with infertility experience when they get married or cohabit. This theme has eight sub-themes which included; Attitude/beliefs, Behaviour, Emotions, Coping skills, Mental disturbance, Self-esteem, Life perception, and Psychological triggers/reminders.

4.3.1 Attitude/beliefs

This includes the mental acceptance of a claim as faith, or truth participants hold in the reality of something. This often based upon one's reasoning, trust in a claim, and desire of actuality. Some participants affirmed that before they were diagnosed with infertility, they thought being able to have sex with their partner was enough to father a child. This made them believe they were healthy and accused their wives of being the reason for their infertility. Lamptey, a 65 year old office cleaner had this misconception about himself by blaming his wife for their infertility and laments that;

...when it happens that way we only treat the woman because if you can have sex with your wife, you think you are healthy. So, I was treating my wife, thinking that the fault is from her (Lamptey).

Based on their religious belief, and advice from significant others, some of the participants believed that marrying a second wife was a solution. Asiamah, 35 year old electrical engineering student and Akomea, a 40 year old photojournalist shared their opinions as follows;

You know in Islam, marriage is very important, but giving birth is like a profit that is what I believe. Some Islam scholars said that marriage is very important to the man before your religion will be complete. But giving birth is not by force, is by choice (Asiamah).

...you know our religious belief; they are advising me to add another wife and see the result. You see sometimes our fathers, have seen many situations like these, the moment the husband adds the second wife, it may happen that luck will come in the family so that the first one will also conceive (Akomea).

4.3.2 Behavioural factors

Participants shared their experiences about how society behaves towards them. Some stated that they discussed their problem with others to get a solution. On the other hand, some reported that the behaviour of people towards men with infertility had mixed feelings. Amid colleagues, some participants had a reassuring atmosphere because of their empathetic nature and vice versa. Appiah, a 30 year old professional graduate teacher and Mawuko, a 24 year old carpenter shared their experience below;

Ooh, for me, I found myself with very good people. Those I am working with at my workplace, they behave normally. Because they feel they have empathy for me (Appiah).

Others will spread wrong information about you that you don't want to give birth now. Someone even said my wife went for family planning contraceptive not to give birth, and I am struggling with her (Mawuko).

However, few recounted that they do not discuss their problems with others. They thought that if you had a problem, they would rather seek professional help. Boye 27 year old military officer puts it this way;

I don't go about discussing my issues with anyone. The hospital is there, you go and do your checkups, so I don't go discussing the problems with everyone I see (Boye).

4.3.3 Emotional factors

Participants were interviewed about their emotional experiences concerning their infertility, and they were of the view that they experience a lot of emotional problems such as depression, anxiety, stress, and distress. Some of them stated that their infertility interferes with their daily physiological functions such as sleeping, happiness, and enjoyment. Ampem, a 40 year old diploma teacher, Mantey, a 32 year old professional welder, and Ampofo, a 32 year old baker shared their thought;

Hmm, it is not comfortable leaving in a married life where there is no fruit of the womb. Frankly speaking, it is not easy. Most of the time, you sit down, and then what you only do is to be thinking and thinking. So, it is not easy at all (Ampem).

Master, hmm when you are there, you do not have happiness. Always you do not feel well. When you remember your infertility, you do not feel happy. Your mind is not at peace (Mantey).

It worries me a lot. When you marry to date, and there are no children from the marriage, it is a big problem for me, and I have sleeplessness because of that (Ampofo).

For Asiamah, a 35 year old electrical engineering student, the remembrance of not fathering a child puts him in a bad and pitiful mood.

Even though we know as a human being, sometimes you would feel bad, feel pity for yourself, and your wife. Sometimes you ask yourself why is it that you are not able to give birth, while others are giving (Asiamah).

However, few of the participants have divergent experiences. Whilst some were not happy, felt sad or disturbed, others felt they were normal and ready to accept their situation. Boye, a 27 year old military officer, and Adofo, a 32 year old service personnel have these to say;

I know it is normal. Any human can have a problem, so I don't get worried a lot. I don't think I am completely impotent (Boye).

No matter how life is, there is a good side to life, and there is a bad side to it. So no matter how the circumstance, I prepare myself to accept anything that comes on my way (Adofo).

4.3.4 Coping Skills

When it comes to coping skills, participants affirmed that they adopted diverse coping mechanisms to deal effectively with life threats and confrontational situations. Akomea, a 40 year old photojournalist, Gyan, a 40 year old businessman, and Appiah, a 30 year old professional graduate teacher used diversional skills to adjust themselves.

The only thing I did recently as a man when this infertility issue came into my mind, I pick my phone and called my ex-friends who are ladies, and we just remember the moment we were having fun (Akomea).

...when I remember the need of a child, I would call my daughter's mother and instruct her to let me talk to my daughter. If she wants, she will give the phone to the child, and if she wants, she will refuse. The day I get to talk to my daughter, the kind of excitement I get is more than a gift I am given (Gyan).

Hmm, it usually is not easy. But what I usually sort to do is by listening to motivational songs and others. Also recalling people who have similar situations like mine, I feel better. Most of the time, I looked for movies that portray my situation and just console myself. (Appiah).

Whilst some adopted diversional tactics to cope with their situation, others employed faith as a form of coping mechanism to deal with their infertility. This faith comes in the form of prayers, fasting, and trust in God. Amoabeng, a 43 year old fashion designer and Mantey, 32 year old professional welder have these to say;

When it came into my mind like that it worries me, so what I do is to leave everything and start fasting (Amoabeng)

When I remember my infertility problem, what I do is to give everything back to God and have faith in Him. He provides and does everything (Mantey).

Some participants reported that they adopted children as a form of coping mechanism to help them in their work and also keep them in the company. Mantey, a 32 year old professional welder, and Lamptey, a 65 year old office cleaner expressed their opinions below;

Hmm, currently my brother's child is with me, I am taking care of him. I can be sending him when the need arises, and also, he can be supporting us in the house (Mantey).

I have adopted two children to take care of. That is my wife's junior sister child is with us and my brother to the child is there. We adopted them to help us solve our problems. For instance, they keep us from boredom or keeps us company and also solve children's problems. If the need to send a child, you can send them, and if they need to solve a child problem involving children, you can use them (Lamptey).

4.3.5 Mental disturbance

Some participants expressed mental instability, resulting from the experience of infertility. They narrated that these infertility problems keep them always thinking, which affects them psychologically process. So, some preferred to be surrounded by people, and others preferred to distance themselves from people because of their utterances. Below are some statement made by Mantey, a 32 year old professional welder, and Asante, a 36 year old professional graduate teacher;

When you are sitting down, it is always in your mind. When you are in the midst of people, the infertility tension is better than when you are sitting down alone. It gives you a headache when you are thinking about it (Mantey).

If you want peace of mind, you know for guys, sometimes you sit with them, and the utterances someone would make at least psychologically will affect you, that is, you will not be happy, or you will feel sad (Asante).

4.3.6 Self-esteem

This self-esteem, some participants referred to the set of values and prestige attached to giving birth. They believe that giving birth is necessary because of the respect and dignity society attaches to childbirth. Lamptey, a 65 year old office cleaner, explained that;

For Dagombas, if you do not have a child, they do not value you. If you are there, the first question, they would ask “does he have a wife” if you do not have one, they will not value you, does he have a child, if you do not have a child, they would not appreciate you (Lamptey).

He added that;

...when the work of the child comes, you have to perform it, and if the work for the adult comes, you have to perform it. So, because of that, you are not valued since there is no child. Always you are going to be a child or look down upon (Lamptey).

Few participants indicated that they were mocked and teased by people because of their situation. Most of these utterances occurred during their attendance at ceremonies. These are what Mantey, a 32 year old professional welder, and Boye, 27 year old military officer have to say;

When you are with friends or even in the house because you don't have a child, someone may use his children to tease you. You know this part of our country people doesn't respect other people who don't have children. If you don't have children, they don't regard you, and sometimes you cannot send other people children (Mantey).

Some colleagues would say that they invest in their children because they know you have no child, they say this to mock you. You have nothing to say about children (Boye).

Some participants explained the relevance of having children in his culture. A participant indicated that children are equated to wealth. This is what Amoabeng 43 year fashion designer has to say;

You know in our culture children are very important. Some even say that if you have children, you have wealth. So that is why we are all struggling now to have children (Amoabeng).

4.3.7 Life perceptions

Participants frequently narrated the feeling that life is meaningless without children, indicating that who will take care of them when they grow old. Also, they reported that the purpose of marriage is to give birth to children. Ampofo, a 32 year old baker, Lamptey, a 65 year old office cleaner, and Amoabeng, a 43 year old fashion designer expressed their views below;

...“when they say if your father gives birth to you, you give birth to yourself”. Everybody is getting married because of the children. (Ampofo).

...people take care of those who give birth to them. So, if I grow old and I don't have a child, how will life be? Life is not going to be good for me. So, I don't have peace of mind, because of childlessness (Lamptey).

Hmm, life seems meaningless to me now. Because my parent gave birth to me so that when they grow old, I will take care of them. So, see my situation now, if I don't give birth and grow old, who will take care of me (Amoabeng).

Mawuko, a 24 year old carpenter, buttressed the fact that when you marry, and you do not have children, you feel less of a man. You earn no respect from the cultural environment, and this puts one in an uncomfortable situation. He echoed that children are needed to support you in different activities.

Hmm, right now, I feel I am not complete. That is the way I feel. So, assuming that such a thing should happen, you know in our culture or family background you will not have respect, not only the respect, you don't feel

comfortable. It will reach a time when you will need a child to support you like helping you on your daily bases, and some people will have a problem with you to use their children (Mawuko).

4.3.8 Psychological triggers/reminders

Most participants narrated that seeing their colleagues' children normally reminds them of their infertility. Some stated that whenever they saw their brothers sending their children to school, this issue of childlessness will surface in their minds. These are the statement made by Boye, a 27 year old military officer, and Akomea, a 40 year old photojournalist;

At a time when you visit your colleagues, and you see they have children and you came home and there is none. At the time it is very sorrowful. You come home, and there is no child, it is you and your wife. (Boye).

When I see my young brother's carrying their children to school, and you can't do that means a lot. ...anytime I enter the market, and maybe I saw a beautiful thing for babies, I said to myself, ooh if I had a child, I would have bought it for him or her (Akomea).

Appiah, a 30 year old professional teacher, reinforced the point that seeing your brother taking their children to school or seeing your colleagues' children growing up prompts him of his infertility.

Every morning my elder brother would be taking his children to school. So, when I see them, this drew my attention to my situation. Usually, when I see a child, a baby, it reminds me. A newly born baby reminds me (Appiah).

4.2 Cultural factors associated with men with infertility

These are factors that participants believed influenced their lives in society. These factors were described in five categories; Masculinity, Sexual desire, Promiscuity, Care for wife and desire to have a biological child.

4.2.1 Masculinity

Family members and friends usually have certain expectations from a freshly married couple, more, especially the man. The participants reported that people were expecting them to have children after marriage. Anything less of this casts doubts on the masculinity or potency of the man. Participants expressed these worries that family members and friends had trust in them to make their wives pregnant. However, these expectations seem to be failing, which makes them feel worthless. Boye, 27year old military officer and Ampofo, 32year old baker shared their experiences as below;

...when you turned to look at your family and the society you begin to realize that they are expecting you to have a child. At this moment a lot of concerns come in. You know when they expect that erm you should have kids and you are not, they think you are not a man (Boye).

...you can be sitting among friends, and someone can just make a statement, and it looks like you are either a boy or not a man, and without given birth, you are nothing. You don't have manhood (Ampofo).

4.2.2 Sexual desire

Participants expressed that the issue of their infertility did not influence their sexual behaviours. They still satisfied their partners' sexual desires. The following reports from Gyan, a 40 year old businessman, Appiah, a 30 year old professional teacher, and Boye, 27 year old military officer indicated that their infertility situation did not have any influence on their sexual desires and behaviours.

For sexual intimacy between myself and my wife, there is no difference since we got married. The way we make love is still the same (Gyan).

I satisfy her very well. This situation does not deny us from having sex (Appiah).

You have to satisfy your woman as far as you are married (Boye).

On the other hand, Akoto, 47 year old farmer and driver and Lamptey, 65 year old office cleaner, orated that, sexual satisfaction with their partners was difficult because maintaining penile erection and increased desire was problematic. They described as below;

The way it happened to me when I had sex with my wife, the semen would flow out alright, but my penis would not erect again (Akoto).

...what happens was that when we had sexual intercourse, sometimes it is not always, the semen would flow out from my wife's vagina when we are still on the bed. But this time it does not flow out when we are still on the bed, it happens the moment she got up to go into the washroom, some would flow out. For me, when I had sex, it will take me days to have the desire for it again (Lamptey).

Mantey, a 32 year old professional welder, however, stated that his wife refused him sex because she believed the end would not make her pregnant.

You know sometimes women when it happens that way, and you want to have sex with her, she would refuse and said that if you have sex, it is going to be the same story. It would not give birth (Mantey).

4.2.3 Promiscuity

Another cultural concern was promiscuity, Boye, a 27 year old military officer, stated that since her wife was not getting pregnant, he had to resort to extra-marital affairs in an attempt to test his ability to have children. In other words, because they were not getting results from their wives, they thought it wise to try outside and see the results.

At the time, you feel like having a side chick outside. At the time you feel like trying things outside to see maybe it would yield some result for you. That is to say, dating outside to know whether you have the possibilities (Boye).

4.2.4 Care for wife

Some participants narrated that though they are the reason for the couple's infertility their wives, however, are significantly affected. For instance, they all attested that people who do not have an idea, accused their wives of their situation, and this leads to many psychosocial problems. They emphasized that sometimes they need to comfort their spouses to relieve them of the stress. Appiah, a 30 year old professional teacher, Lamptey, 65 year old office cleaner, and Akomea, a 40 year photojournalist have these to say;

What I usually did is that I would console her, forgetting that I am also in that situation. Just to make her happy (Appiah).

...when I look at my wife, I feel sorry for her. Her colleagues, the younger sister, those she married before too, would be sending her. They would be sitting down and send her. This is a worry to me. It disturbs me a lot (Lamptey).

You know my wife narrates to me that any time she is going to programs with my brother's wives, and she would think why her colleagues would have children, and she cannot have. Sometimes her friends would be calling her and asking her how far, why is it that up till now we do not hear anything from you. She is now fed up. So I have to cool her down by saying that we should keep on praying to God everything will change (Akomea).

4.2.5 Desire to have a biological child

When discussing the issue of a biological child with participants, they narrated that it is much better to have your biological child than anything else on earth because they need their children to continue their lineage. Amoabeng, a 43 year old fashion designer and Mantey, a 32 year old professional welder made these statements;

...when I need a child to help me or send I don't have one to send. Also, concerning my workplace, I need a boy or apprentice. Any time I get an

apprentice, they would leave me. But if I have my child, he would be there, while going to school or Arabic school, and when he close from school, he would come and join me at the workplace (Amoabeng).

...this life without your biological children is terrible. Because those who are not your biological children when the situation becomes hard, they can decide to leave you. But those who are your own cannot decide to leave you. We see it in this world (Mantey).

4.3 Social factors affecting men with infertility

These are the factors that demonstrate how men with infertility relate to people within society. These men explained their social experiences in the form of; social pressure, social stigma, social isolation, and cost of treatment.

4.3.1 Social pressure

Participants reported that they had received a lot of pressure from family and friends concerning their infertility. They explained that this pressure usually comes from their mothers and sisters. Some participants narrated that their mothers are not happy and worry about their situation. Below is statements made by Mawuko, a 24 year old carpenter, Amoabeng, a 43 year old fashion designer and Gyan, 40 year old businessman.

When it comes to my family, it causes a lot of problems, and it disturbed me. My family is expecting me to give birth, but it is not forthcoming. So always there is pressure on me. ...some people say I should marry a second wife, and others would not tell you to marry a second wife, but you should do this and that (Mawuko).

...my mother cries a lot and prays for me to give birth to a child for her. My parents are not happy about my situation that I don't have a child. Both my paternal and maternal families are all worried that I don't have a child at my age (Amoabeng).

...my sisters, mothers, brothers, and friends are asking me why my wife is not yet pregnant. When I sit small to chat with my mother, she would ask me whether I will give her grandchildren (Gyan).

Whilst some participants are getting pressure from their family and friends regarding childbirth, others like Appiah, 30 year old professional teacher, and Akoto, a 47 year old farmer and a driver, explained that there is no pressure from their families. Their wives' families believe that God's time is the best and pray for them to conceive.

...I can say I am a lucky person. They talk to their daughter directly. They would talk to her, and she tells me what happens. They just called her and console her that she should not worry, God's time is the best, and we will have children, especially the mother she has been consoling her (Appiah).

My people don't say anything. They rather pray that God will bring the child. They are all praying to God to bless me with a child between myself and my second wife (Akoto).

4.3.2 Social stigma

When participants were interrogated about how society perceived them. Some participants explained that people called them names or make statements that marginalize them in society. They gave instances where people called them by using a funny but strange term such as “he carries a fridge”, “impotent man”, “a cold-headed man” or made statements like; “ your urine cannot displace a stone” and so on. Gyan, a 40 year old businessman and Amoabeng a 43 year old fashion designer, shared their plights below;

...they called me an impotent man that since they did the wedding for me, I am not able to impregnate my wife (Gyan.)

...because I don't have a child, people look down upon me, and some people even insult me ...and say, “I carry a fridge or that I cannot urinate to displace a stone” (Amoabeng).

4.3.3 Social isolation

Participants re-counted that they related very well with people in society. Some participants reported that since they got to know their condition, they did not voice it out to anybody, so their relationship with people is still the same. Others stated that because of people's utterances, they distance themselves from some friends. Asante, a 36 year old professional graduate teacher, Akoto, 47 year old farmer, and driver and Lamptey, a 65 year old office cleaner have these to say;

Psychologically it affects me, and sometimes it even makes me distance myself from some friends (Asante).

We are just leaving the same way we used to. We relate to each other well. We are just free with each other. No one knows that I have such a problem. You know it is my household I would tell, but outsiders I don't discuss my problem with them (Akoto).

We can have an occasion like the naming ceremony, not my direct family, if I don't know the person, it gives me worry because every naming ceremony or wedding ceremony I would go, but it keeps me thinking. When will these people come to my occasion, especially the naming ceremony? If not, because I have strong faith, it would prevent me from going to people's occasions (Lamptey).

Nevertheless, Appiah, a 30 year old professional teacher and Ampofo, a 32 year old baker, explained that their condition does not prevent them from interacting or going to ceremonies with others.

I move freely with a friend. It does not prevent me from going out with a friend to the naming ceremony, wedding ceremony, or funerals. I don't know whether in the future it would happen. But for now, I move with friends who want to move with me (Appiah).

Though it would hurt or worry me, it is not enough to separate me or stop me from sitting with people. They are my friends so I cannot say because of this problem I would leave my friends. No, I would not stop sitting with friends (Ampofo).

4.3.4 Cost of treatment

Participants lamented about the high cost of treatment (orthodox and herbal) for infertility. The high cost of treatment had weakened the financial state of some participants. They indicated that monies were diverted to the procurement of either orthodox or herbal medications which had turned rather expensive for them. For this cost, they were unable to pursue all the medications prescribed for their treatment. This is what Mantey, a 32 year old professional welder and Akomea, a 40 year old photojournalist had to say;

...the orthodox treatment is very costly. I cannot even estimate the amount of money I have spent on treating myself and my wife. All the money I labour for all goes into seeking treatment. So I cannot give the exact amount of money I have spent on treatment (Mantey).

You know the herbalist side in those days when you went to the herbalist, you only give kola, so that if your problem solve and you come back and thank the herbalist....but now this modern day, the herbal treatment is very expensive than the hospital treatment. Looking at it, when I observed the two (2) treatment methods, the last time I went to the herbal side, I spend Ghc 200. Recently I went to the hospital, myself and my wife, we spend Ghc 180, but we didn't collect all the drugs. So, we told them we don't have money. They should collect some of the drugs back so that when we organize ourselves, we will come for the remaining drugs (Akomea).

Appiah, a 30 year old professional teacher, affirmed that the cost of infertility treatment is even more expensive when it is a private orthodox hospital. The drugs, consultation, and other things are costly, and they do not operate the national health insurance scheme at such private facilities.

The drugs are expensive, you know when it comes to this infertility, it is not like our usual sickness, where you used your national health insurance to go for the drugs. Because, at the private hospitals, consulting you have to pay, after which they prescribe drugs for you. You must also go and buy them in a very high amount (Appiah).

4.4 Marital factors affecting men with infertility

This is an emerging theme from the data. Marital factors are problems originating from the marriage as a result of infertility. These problems could be coming either from the man or the woman or both. Such problems were reported in two categories; marital conflicts and pressure from wives.

4.4.1 Marital conflicts

Participants gave an account of what happens in their marital homes. They recounted that infertility brings a lot of problems in their marital homes. Some participants even indicated that if not faith, they would have divorced their wives. There are issues of misunderstanding, nagging, annoyance, small quarrels, frustration, and diminishing love, as well as divorce tendencies. These are what Ampofo, a 32 year old baker, Akoto, a 47 year old farmer, and driver, and Asante, a 36 year old professional graduate teacher have to say;

...it is not about coming out to exchange blows, but you would see that we were not talking to one another. Only a handful of men can tolerate this! There is frustration in our marriage. There were times we are not fighting nor happy among ourselves. It looked like she is not your wife. All of you are fed up (Ampofo).

Infertility brings misunderstanding between us. Sometimes, I can say something, and she would say that I am fed up with her because she is not giving birth. What will have worried me was to divorce her. But I don't have the intention in my heart to divorce her. We quarrel small, small but I don't have the intention to divorce her. I don't have that intention (Akoto)

Yes, it is not easy in our marriage home. The love that was there before is diminishing. I experience a lot. As a man, I try all I can do to accommodate her, to accommodate certain things like nagging and others (Asante).

While some participants expressed worrying issues in their marital homes resulting from infertility, others experienced rather the contrary thus peaceful and loving marriage because they understand each other well. Gyan, a 40 year old businessman and Appiah, a 30 year old professional graduate teacher expressed their marital peace below;

If I want to tell you it brings any problem between us, then I am lying to you. I am telling you the truth. She understands me, and I also understand her (Gyan).

My wife and I live peacefully together (Appiah).

4.4.2 Pressure from wives

Some participants reported that aside from parental and sibling pressure, their wives do not put any pressure on them. But few of the participants explained how their wives treated them because of infertility. They reported instances that their wives divorced them or moved to stay with their parents because they are not conceiving. Lamptey, a 65 year old office cleaner, and Amoabeng, a 43 year old fashion designer shared their lamentation;

...but my second wife has moved to stay with her family. According to her, the problem is because she is not able to give birth since we got married. Because of the childlessness, she does not have peace of mind, and always when I talk to her, she becomes annoyed (Lamptey).

Due to no sign of the child, my wife left me, we separated with her reason being she is not getting pregnant, and that is the reason why she married me (Amoabeng).

4.5 Opinions about the cause of infertility

Diverse opinions about the cause of their infertility were reported; attribution to God, no knowledge about the cause, and spiritual causes. This theme emerges after a content analysis of data.

4.5.1 Attribution to God

When participants were interviewed regarding the cause of their infertility, some participants believed that their conditions are caused by God. They are of the view that nothing can cause their infertility except God. Akomea, a 40 year old photojournalist and Appiah, a 30 year old professional graduate teacher had this to share;

Yes, this sickness is from God, it is not from any human being or witches. I believe it is from God. This is something I have been telling my wife, so let us pray whilst treating ourselves (Akomea)

I would just say the test we have done shows nothing is wrong with us. I would just say God's time is the best. All the tests we have gone through, and there is nothing wrong (Appiah).

On the contrary, Asante, a 36 year old professional graduate teacher, believed that his condition was a test from God, so he did not attribute his situation to any supernatural forces.

Ooh, for me as a person of religion, I believe, is a test of God. I don't attribute it to somebody behind it. I have it that it is a test of God (Asante).

4.5.2 No knowledge about the cause

Participants were interviewed about their knowledge regarding the cause of their infertility. These men believed that they performed sexually as men yet, it yielded no results. They wondered whether their sperms were not healthy enough. This is what Amoabeng, a 43 year old fashion designer and Gyan, a 40 year old businessman had to say;

I cannot tell whether the sperms were not healthy enough to give birth to a baby or the sperms were too small (Amoabeng).

I don't know; I perform as expected as a man, my wife is there you can ask her, I do it. And if they expect a man to ejaculate, I do that. I don't know for the sperms (Gyan).

Gyan emphasizes that;

...the way they expect a man to perform so that his wife can become pregnant by God's grace I have it. But I cannot tell about the sperm. The way the sperm is, it's still the same sperms I used to father my first daughter. (Gyan).

4.5.3 Spiritual cause

When participants were asked about the cause of their infertility, some participants were of the view that their situation was not natural. Some participants believed that supernatural forces were the cause of their predicament. Others believed that demonic forces prevented them from conceiving. Akomea, a 40 year old photojournalist, Adofo, a 32 year old service personnel, and Ampem, a 40 year old diploma teacher shared their thoughts below;

Some people would think negatively about you, and other people will advise you to dig into your extended family relations, that perhaps someone may have played witchcraft on you to prevent you from bearing children (Akomea).

...when I interviewed my wife, she said, she had sexual intercourse with another man in her dream, which is not me. And she cannot identify this man who had an affair with her. When things of this nature happen, it is the work of the "Jinns", and they have the power to block you the man from giving birth (Adofo).

...but I would attribute this my infertility to people. They work with Mallams who have the power to cast demons into people, and these demons have this kind of supernatural power to prevent people from given birth. So I'm considering handling it both spiritually and physically (Ampem).

4.6 Motivational factors to seek help

These are factors that encourage participants to seek an assistant to be orthodox or local treatment. This particular theme has four categories, which include; advertisements on TV/radio, personal decisions, significant others' decisions, and failure of local treatment. This another emerging theme after content analysis.

4.6.1 Advertisement on TV/radio

Participants narrated that they seek help base on the information they heard from the television and radio stations. Some participants explained that they know they have a problem, but where to seek treatment was the problem. So information from this media motivates them to seek treatment. Mantey, a 32 year old professional welder, Gyan, a 40 year old businessman, and Adofo, a 32 year old service personnel shared their experiences below;

It happens that I listen to the radio, what they were saying was that when you have this problem which happens to be an infertility program, you can come and they will treat you (Mantey).

I was in the hall watching a program in “Sagani” TV concerning infertility. Fortunately, my wife was also watching this program in the bedroom. So she called me daddy come and see. When I entered, she said I should listen to the man. So my wife said we should go and see that doctor. That was how we make our decision (Gyan).

...I saw the advertisement on television, so I decided to come and see what will happen to us (Adofo)

4.6.2 Personal decision

Participants explained that they seeking helped for treating their infertility were personally driven. Some participants reported that they take the bold decision to seek assistant regarding infertility treatment. Adding that this personal motivation

made them seek treatment (orthodox or local). Adofo, a 32 year old service personnel, Asante, a 36 year old professional graduate teacher, and Appiah, a 30 year old professional graduate teacher narrated their ordeal below;

I decide for myself. I am a grown man to decide for myself. I am a grown to make a decision for myself and to take steps for myself (Adofo)

The decision was made by myself, and it was back by my wife (Asante).

I think I decide because we had an infertility problem. Also, the equipment the hospital has can better explain or detect what was wrong with us (Appiah).

4.6.3 Significant other decision

Participants reported that family and friends were behind the reason why they seek infertility treatment. They explained that where to get the right treatment was a difficult task for them, but significant others in their lives gave them the right direction where they will get the right treatment. Some participants narrated that constant demand for grandchildren from their parents drove them to go in for treatment. Adofo, a 32 year old service personnel and Akomea, a 40 year old photojournalist described their experiences as follows;

My family and friends called me and told me about the natural herbal clinic that they are healing with natural herbs, so I should go there and try my luck (Adofo).

I had a friend who told me to visit the natural herbal center they are good. A friend of mine experienced this, and they went there and Insha Allah they have a solution to their infertility problem (Akomea).

Boye, a 27 year old military officer, explained that his wife complained of a menstrual problem that forces them to seek help from the hospital.

It was my wife that makes me go to the hospital. It was my wife because she couldn't menstruate properly (Boye).

4.6.4 Failure of local treatment

When participants were interrogated to know the factors that motivated them to seek treatment, they elucidated the failure of local treatment for infertility. Some participants stated that they were using local herbs to treat their infertility, but they did not see any changes. As a result, they have a second thought to visit the clinic or hospital for further treatment. Ampem, a 40 year old diploma teacher, Akomea, a 40 year old photojournalist, and Ampofo, a 32 year old baker have this to share;

When I was using the local herbals, I was not getting any results. So I decided to visit the hospital where I think they have the experts, who do not guess but do the right thing for me (Ampem).

As I said, my friends told me, look, my guy, people go to the hospital, and they get a solution to their problems. So why don't you depend on the hospital and leave the herbal, because you do not see changes from the herbal site (Akomea).

...we follow the local treatment for the number of time, and we did not see any changes. You know the hospital has a specialist who takes care of this problem we are facing, and people are also saying it (Ampofo).

4.7 Treatment of infertility

This concerns the treatment modality used in treating infertility by participants. The treatment modality reported by participants includes; medical treatment, local treatment, and faith-based treatment. Treatment of infertility is an emerging theme from the content analysis.

4.7.1 Medical treatment

Participants indicated that they contacted different consultants from different clinics or hospitals for infertility treatment. They stated that the doctors prescribed some drugs for them after laboratory investigations. Some participants reported that

they were advised to do some exercises and eat a healthy diet. Asante, a 36 year old professional graduate teacher and Appiah, a 30 year old professional graduate teacher shared their experiences below;

*I contacted another midwife who made do a semen analysis. ...she told me to check my diet and doing a lot of exercises. She prescribed some drugs for me that would boost my semen and give me healthy sperms to. ...she also gave us some antibiotics, herbal one of course to treat infections. So we were taking it, and in fact, I see some changes and my woman also saw changes (**Asante**).*

*I went to see a specialist in one private hospital, who after several tests prescribed some drugs for me to buy. The doctor advises me to follows the instruction he gave to me after the consultation (**Appiah**).*

4.7. 2 Local treatment

Concerning treatment, participants indicated that they had used local treatment for treating infertility. Participants narrated that the herbalist they usually consulted gave them some herbs and concoction to be taking. Adding that it is not easy to use the local treatment. These are what Appiah, a 30 year old professional graduate teacher, Adofo, a 32 year old service personnel and Asante, a 36 year old professional graduate teacher had to report;

*Yes, I have used herbs to treat my infertility. A friend of mine introduce me to a herbalist known for treating people with infertility, and he gave us some herbs. But these herbs did not work for me. So I stop using (**Appiah**).*

*...those I have consulted, they are not in the hospital. But they also treat with local herbs. They are just local herbalist in the community popularly known for assisting people with infertility. I used the herbs for many time, but it is not that effective for me (**Adofo**).*

*For the local treatment, that is the one I happen to use several times. It is about to try your luck. Most at times, you will go there, and the herbalist would give the woman attention more than you, the man. ...drug or concoction they give usually is for the woman (**Asante**).*

Gyan, a 40 year old businessman, stated that instead of going to the herbalist, he went to “Mallam” who is known to help couples who have infertility problems and the “Mallam” prepared some concoction for them.

... “Mallam” prepared some local medicine for us to use, but after using it, there was no sign of pregnancy. ...I went in for another one where the “Mallam” would prepare some medicine in a slice of meat. When the couple eats the meat, if the woman eats two of the meat, she will conceive and give birth to twins. But if the woman eats only one of the meat, then she will conceive and give birth to one baby, and if she cannot eat the meat, then she will not conceive (Gyan).

4.7.3 Faith-based treatment

Participants explained that they depend on prayers and having faith in God to cure them of their infertility. Some participants reported that they pray to God to direct them to the right place for treatment. Ampofo, a 32 year old baker, Adofo, a 32 year old service personnel, and Lamptey, a 65 year old office cleaner have this to say;

We are praying that was ever the solution is God; he should let us know (Ampofo).

I have faith in God, and I always pray to him to solve my infertility problem for me (Adofo).

...they support me in Islamic ways to, by preparing some concoction for me combine with prayers for God to bless us with a child (Lamptey).

4.8 Treatment preferential

This is the treatment of choice selected by participants. This theme emerges after a content analysis of data. Medical treatment, local treatment, desire to the used modern method to conceive, and feeling disappointed in service providers are categories under treatment preferential.

4.8.1 Medical treatment

Participants recounted that they prefer medical treatment to other treatments because they have trained experts or specialists who can give them the necessary care they need to be fertile. Some participants prefer this treatment as a result of the failure of local treatment. Ampem, a 40 year old diploma teacher, Asiamah, a 35 year old electrical engineering student, and Amoabeng, a 43 year old fashion designer shared their experiences below;

I prefer the hospital because, in the hospital, there are trained expert, for instance, a gynaecologist who know what they are doing, but the traditional or local way of treatment, the people only know what type of herbs to used but what goes into the reproductive organs they don't know (Ampem).

After taking the traditional medicine and the hospital drugs I saw the difference between them, so I think the hospital treatment is better and I prefer it than the local treatment just that it is costly (Asiamah).

For now, I would say the hospital treatment will be good for me because I have tried the local treatment and see how it work. So I will prefer hospital treatment (Amoabeng).

On the contrary, Akoto, a 47 year old farmer and driver vow not to use medical treatment because of its cost and treatment failure.

For the hospital treatment, I vow not to retake it. I spent almost Ghc 600 for treatment but when I finish taking the drugs and check to see whether my sperm count had increased, but to my surprise, it is still the same thing (Akoto).

However, Adofo, a 32 year old service personnel, Akomea, a 40 year old photojournalist, and Lamptey, a 65 year old cleaner, explained that they prefer any treatment that will solve their problems.

In a nutshell, I prefer all. I will go for all because all of them can be used to treat infertility (Adofo).

The only one, the one that can help me to get the solution (Akomea).

We are just trying to see which one would solve our problem. Because we don't know. We are trying to see the better one, whether the local or orthodox treatment we don't know. So anyone of them that is good to solve our problem is what we prefer (Lampzey).

4.8.2 Local treatment

Some participants explained that they prefer local treatment because of its affordability. Akoto, a 47 year old farmer and driver shared his experiences as follows;

For me the local treatment, even if you don't have money and you know the herbalist, you can give him Ghc 10, and they will get you the medicine, and you settle the money any time you get it (Akoto).

Mantey, a 32 year old professional welder, and Gyan, a 40 year old businessman narrated that they were advised to stop using the local treatment and continue with the orthodox treatment. They were adding that the local treatment people do not have adequate knowledge to treat infertility.

They said I should stop the local treatment and continue with the orthodox treatment. If I take the drugs continuously, I will get a change (Mantey).

I will not lies to you, the local (Dagbani) and Islamic both don't know about the treatment of infertility. For the orthodox, God makes them go to school and acquire knowledge. So they can be specific in their treatment (Gyan)

4.8.3 Desire to used modern method to conceive

Some participants are willing to use modern methods to conceive if they know the actual cause of their infertility. Adding that if the sperms they are going to use is from them, they will accept and used it. But if the sperms are from donors, they will not reject it. Gyan, a 40 year old businessman and Boye, a 27 year old military officer have this to share.

I want to know the actual cause of my infertility. If I know, even if it demands that I should get money and they do what they called artificial insemination, or in vitro, I will do it (Gyan).

... If the sperm cannot pass through the woman vagina maybe because there is a blockage or the sperm might have a short tail to swim, or maybe the sperms might have a problem in swimming than I can think of accepting artificial insemination. ...also, if the sperm is personally from me and I will prefer it. I don't have a problem. What I need is my child. So if there are other means to get her pregnant by artificial insemination her directly, which is not going to be like I'm going to take someone sperm, if it is my sperm and my wife's ovum, it still my child. (Boye).

Interestingly, Akomea, a 40 year old photojournalist and Appiah, a 30 year old professional graduate teacher stated that because of their religious beliefs and unwillingness, they are not prepared to try modern methods to conceive a child.

All these things I don't believe in them and I would never do it. Master I told you, I am someone who believes in Islam. I don't believe in those things. I believe in God. I believe that God can change my situation within a moment (Akomea).

For artificial insemination and others, I don't think of going to that extend. I have heard of them, but I don't think I am ready for it (Appiah).

However, Mawuko, a 24 year old carpenter, explained that apart from local and orthodox treatment, he does not know the modern method to conceive a child.

I don't have any other treatment in mind for now. Quite apart from that, I don't know of any other treatment except the local and the orthodox treatment (Mawuko).

4.8.4 Feeling disappointed on service providers

Participants lamented that the doctors or specialists they consulted with their wives, were not able to engage them, the husbands of the patients what happen during each procedure carried out on their wives. Adding that they pay more attention to the women to the detriment of the men. Ampem, a 40 year old diploma teacher, Akoto,

a 47 year old farmer and driver, and Asante, a 36 year old professional graduate teacher shared their experiences as follows;

...he was not able to explain certain things to me as a husband of the lady. So he carries out some tests on the lady, but when my woman came out, she was sharing some kind of information that the gynaecologist told her when he was on the process of doing the test. And then, when I sat with the gynaecologist, he didn't tell me exactly what happens. So he should have at least as an experienced gynaecologist, he should have explained to me what happens during the test process, but he was not able to explain to me. So because of that, I lost the kind of trust I have for him (Ampem).

...when I went to the clinic the second time, I thought he would check me and see whether the sperm has an increase in number. But he made me put my hands on the computer, and he told me to go and repurchase the drugs for the second time. He never told us this is the reason why you and your wife are not conceiving or giving birth. He should have told us your wife is not able to conceive because of so and so problem. For me, I know I have low sperm count because of the test I have done (Akoto).

One of the doctors is having a problem because he is a gynaecologist and not a Urologist. I don't know why the gynaecologist pays attention mostly to the woman. Instead of him also at least give attention to me, the husband, his attention was on the woman. And not any proper treatment, he was always giving us a time table (Asante).

4.9 Social support available for men with infertility

This is the help society provides to participants who have challenges of fathering children. This theme is made up of five categories. They include; moral support, spiritual and faith-based support, financial support, and treatment support.

4.9.1 Moral Support

Participants reported that family and friends provide them with moral support in the form of encouragement, like not giving up in seeking treatment and prayers. Some participants indicated that significant others in their lives, give them suggestions, and even proposed of adding the second wife. Akomea, a 40 year old

photojournalist and Gyan, a 40 year old businessman shared their experiences below;

...some of my friends and family explained that people have infertility and later give birth to children. They encourage me that I should never lose hope, I will give birth. ...some people encourage me to move to a second wife, as I told, maybe I will see results (Akomea).

...a lot of people are supporting me with both moral and other ways. As I said early, some people suggest that I should change different herbalists or go to the hospital if I do not see any result (Gyan).

4.9.2 Spirituality and faith-based Support

Participants elucidated that supernatural forces cause their infertility, so they need prayers from family and friends to overcome these demonic forces. Some participants narrated that relatives introduce them to spiritual leaders who can help them overcome this spiritual problem. Others indicated that through prayers, things could change for the better. This is what Adofo, a 32 year old service personnel, Amoabeng, a 43 year old fashion designer, and Asiamah, a 35 year old electrical engineering student had to share;

Some of my friends support me through spirituality; that is, they keep remember me in their prayers. They pray to God that he should bless me with a child. I have friends who are doing this for me (Adofo).

Some relatives would tell you that they don't have money to support you, but they will prayers for you. So wherever the money will come from, for you to treat yourself, God should make it possible for you and give you a child (Amoabeng)

...my wife younger brother called me and introduced me to one spiritual man. You know my problem is not just natural; there is a spiritual problem attached to it (Asiamah).

4.9.3 Financial Support

Some participants reported that they had received some monetary assistance from family and friends. They explained that this assistance aided them to seek infertility treatment. Akoto, a 47 year old farmer and driver and Lamptey, a 65 year old cleaner had this to share;

The one who supported me was the one who introduces me to the doctor in the hospital. He gave me about Ghc 800.00 for treatment, and there was no result at the end of it (Akoto).

...the support I received was at the time I went to Dr Ofoko, who told me to bring Ghc2500.00. I was having a small amount of money with me, and I told my brother's son who gave me Ghc 200.00. I discuss it with my friends who gave me Ghc 400.00. All these people supported me to go for the operation (Lamptey).

He added that apart from the friends and the brother son, his first wife too also help him by footing the transportation bills.

...Sometimes my first wife supports me. Sometimes if we are going to the clinic or hospital and there is no money with me, she would foot the bill (Lamptey).

Divergent views from some participants indicated that they had not received any financial support from any of their family members or friends. They work hard to finance the treatment of their infertility. Below are the experiences of Ampofo, a 32 year old baker and Mantey, a 32 year old professional welder.

...when I get married in 2012 to date, there is no financial support there is no monetary support for me (Ampofo).

Financially there is no support from anybody. I am working to take care of myself (Mantey).

Appiah, a 30 year old professional graduate teacher, emphasizes that since you are a government worker and at the end of the month, you received a salary, no one wants to help you financially again.

Financially, no. You know here our culture when they see you taking something (monthly salary) at the end of the month, so they only want to show you their moral support is their concern (Appiah).

4.9.4 Treatment Support

Participants narrated that family and friends support them to seek treatment in the form of giving them the direction where they will get the appropriate infertility treatment. Adding that any time significant others in their lives heard of any powerful herbalist or any nice clinic or hospital treating infertility, they would call them and gave them the direction where they will get the special treatment. Mantey, a 32 year old professional welder, Gyan, a 40 year old businessman, and Akomea, a 40 year old photojournalist had this to share.

...when they heard of any powerful herbalist, they would called you and tell you and urge you to go and meet him. The family also gave or told you that they heard of this herbalist, you should try and go and see him (Mantey).

Friends that like you and closer to you, they would tell you to go and see this particular herbalist, that he is very powerful. When we have a similar situation, we approach him, and it works for us (Gyan).

My friend called me and instruct me to go to the natural solution herbal clinic, they are very good, and they can treat your condition for you. My uncle told me, he heard of this natural solution herbal clinic people, I should try and visit there (Akomea).

Summary of findings

Men with infertility, experience numerous psychosocial problems that manifest in several ways. Psychologically, problems such as depression, anxiety, stress, and distress were evident among men. Strategies such as diversional therapy, faith-based strategies, and child adoption were used to manage their infertility.

Culturally, it is expected that after marriage, the man should have biological children, and if this fails, it cast doubt on the masculinity of the man. Though they

reported that infertility does not influence their sexual desire, they crave for biological children led men into promiscuous lifestyles.

Social factors such as social pressure, social stigma, social isolation, and cost of treatment were evolving issues that the men faced within the society. Particular mention is made about participants reporting constant pressure from family members and marginalization by friends.

Marital factors reported by these men included marital conflicts and pressure from wives. They indicated that the issue of misunderstanding, nagging, annoyances, and others led to marital conflicts and contemplation of divorce.

Meanwhile, these men attributed the cause of their infertility to God and spiritual causes. They believed that nothing could cause their infertility except God, even though some of them thought that supernatural forces were the cause of their predicament.

Motivational factors to seek help manifested after the failure of local treatment,

Treatment modality used by these men were medical treatment, local treatment, and faith-based treatment.

Social supports reported to be received by these men include moral support, spiritual and faith-based support, financial support, and treatment support.

CHAPTER FIVE

DISCUSSION OF FINDINGS

The chapter presents a discussion of the findings of the research study. The demographic characteristics of participants are discussed first followed by the discussion of various themes.

5.1 Demographic characteristics

The age of the participants ranges from twenty-four (24) years to sixty-five (65) years, demonstrating that they were within the realm of reproduction. Men within this age bracket can still give birth even though they were being diagnosed with infertility. These men are sexually active and desired to have children of their own. This finding is similar to the previous results of Hammarbeng in Australia, where they reported that men value biological parenthood (Hammarberg, Collins, Holden, Young, & McLachlan, 2017). Also, the majority of these men with infertility were within 31-40 years of age. These men mostly appear to spent time in schooling, and this delayed their childbearing. These men concentrated on spending their sexually active lives to achieve their dreams through education. This suggests that these men are not aware that fertility decrease as they age in life.

Even though the educational level of men in this study spread from primary education to tertiary education, they all experienced infertility similarly. However, the level of education would determine the seriousness attached to the diagnosis. Men who used active confrontation coping skills in dealing with their infertility achieved a better result which linked to their educational status (Yazdani et al.,

2016). This sounds possible because these men may be able to afford infertility treatment and even know where to get the necessary social support they deserved.

The result of this study establishes that the majority of men are employed, which is very vital when it comes to seeking infertility treatment (Coskun, Coskun & Cavdar, 2018). These men who are employed can afford to pay for laboratory investigations, medical procedures, and drugs. On the other hand, as a result of poverty, men in this study setting cannot afford any infertility treatment (Odek et al., 2014).

5.2 Psychological experiences of men with infertility

Psychologically, men with infertility have numerous challenges or experiences regarding their condition. It is a traumatic experience they had to go through in the trajectory to become fathers. These men reported how infertility affected their attitude/belief, behaviour, emotions, coping skills, mental disturbance, self-esteem, life perception, and psychological reminders of their situation.

The attitude/belief of these men towards infertility was influenced by tradition and religious factors. In this study, men believed that the ability to have sex with their wives or partners were enough to father a child, and they attribute infertility to a problem for a woman. Consistent with this current finding are studies in Brazil (Castro et al., 2014) and Australia (Mclacchalan, 2015), where men believed infertility was a woman thing and a threat to masculinity. Also, this finding is reinforcing the earlier results of Naab and Kwashie (2018) in which they reported that women experience infertility were mistakenly blamed for their childlessness.

This denotes that either little is known about male infertility or traditional and religious beliefs are deep-seated in the minds of these men.

The impact of infertility on the minds of these men permits them to shared these unbearable traumatic problems with colleagues for assistance. Sharing of these problems gave them some relief, and lessen their burden as well as giving them hope to seek for treatment. This present study finding is congruent with the findings of Rouchou (2013), where men shared their feelings with friends to get relieved from these psychological problems of infertility. It indicated that men would prefer to talk about their problems with their friends than visiting health facilities. Perhaps, they depend on their colleagues for suggestions and directions on where to get assistance. Sometimes, the behaviour of people towards these men generated a feeling of emptiness as a result of their inability to father a child (Lu et al., 2019).

Men with infertility reported experiencing countless emotional problems such as depression, anxiety, stress, and distress which sometimes interferes with their daily activities. This emotional crisis takes away their happiness, enjoyment, and sleeps from these men. This study result is congruent with findings of other studies where these men experienced anxiety, depression, stress, and distress (Budh et al., 2017; Gamel et al., 2019; Vashkar et al., 2016). Men go through these experiences because they hardly shared their health issues with people; thus, they suffered a lot emotionally. These men have many health challenges, but the right institutions to support them are lacking. Unlike women where there are institutions to support them on the matter related to infertility, the situation of men is different.

When these institutional supports are available, it will help reduce stress, especially among men within 31-40 age brackets (Enwuru et al., 2020). However, this current finding opposed the studies of Hanna and Gough (2016), in which they reported that men had this “emotional rollercoaster” where their experience regarding infertility is seen as distressing and pervasive with mixed emotions. These men’s emotional experiences had a burden on their daily activities.

The emotional crisis these men go through daily is influenced by the Ghanaian traditions and religious beliefs which are very difficult to handle. They requested to adopt coping mechanisms that would suit their situation. These men reported to used diversional tactics to deal with their infertility. This current finding contradicts the work of Pasch and Sullivan (2016) and Pasch and Sullivan (2017) that established that these men use coping strategies such as self-controlling, playful problem-solving, distancing, and social isolation. In some instances, some men adopt maladaptive, emotional-focused, and problem-focused coping tactics to manage their infertility (Lechner et al., 2007).

Also, few of these men recounted having adopted faith in the form of praying, fasting, and trust in God as a coping strategy to deal with their infertility. This present finding is consonant with the studies of Nelson et al. (2019) and Keshavarz et al. (2018), where these men pray to God to change their predicament for them to father children. It implies that these men have lost hope in medical and local treatment of their infertility, thus, relying on God to heal them from this infertility. Moreover, some men reported adopting children to keep them company and help them in their daily activities. This current study is analogous to the findings of

Cunha et al. (2016), where couples adopted children as a form of coping skills to manage their situation. This present finding is contrary to studies done by Mumtaz et al., (2013) and Arya and Dibb (2016), where men resist the adoption of children due to the patriarchal kinship system of continuity of pedigree. They are also of the view that some adopted offspring usually leave their espoused parents when they grow up. It means that some of these men do not trust these adopted children. Moreover, looking into the kinship system of this study area, they are patriarchal. So, these adopted children cannot inherit the property of their espoused parents.

A side of the emotional trauma faced by these men they also recounted experiencing mental disturbances, which affects their daily lives. The mental processes of these men are affected by constant thinking of how to give birth to children. As a result of this, men want to be surrounded by friends to divert their attention from infertility. This current result is comparable to the earlier work of Moyo (2013), where these problems could lead to suicide if not controlled. Sometimes these men emotionally distance themselves from friends due to their utterance, which worsens their predicament (Thorn, 2014). It appears that this social distancing without seeking treatment may cause more psychosocial problems which can lead to the development of mental disorders.

In Africa, children are the most valuable asset to man. Traditionally, it was believed that to have self-esteem, you need to give birth to children. The number of children a man had determined his position in society. These men recounted that giving birth is necessary because of the respect and dignity society attaches to children. This present finding is congruent with findings of previous studies by

Wischmann (2013) and Abu-Rabia (2014), where men who do not have children had lower social status resulting in not meeting the social desired expectation as parents in society. This current finding refutes the earlier results of Wischmann et al. (2014) and Coskun et al. (2018), where infertility has no impact on the self-esteem of men with childlessness but the quality of life. It means that couples or individuals without children are valueless. The respect these people needed in society will not be accorded to them, just because they have a problem with infertility. These men are found to be undermined by, which negatively affects their social status in society. These men are facing too many problems that manifest themselves physically, emotionally, psychologically, and spiritually which are traumatizing their lives.

These men perceived life as meaningless without children. They reported that the primary purpose of marriage is to procreate and find themselves as failures in life as men since they cannot have children of their own. This current result is consonant with the earlier works of Hinton and Miller (2013), where men felt they were fewer self-achievers as a result of not able to father a child of their own. It means that these men believed that life in this world is about procreation, and they have attached importance to it. They recounted that their parents gave birth to them, and so, they had to give birth for the continuity of family lineage. They added that if they do not give birth and grow old, who will take care of them? So they are worried about their old age since life is not sure for them. This contemporary finding is consistent with the prior results by Dhont (2011), where men worried about the lack of children to continue their family descent. This childlessness

situation makes them feel fragile and ineffective. As a result, they are less inspired to work since they do not have children to support (Rouchou, 2013). It means that these men are worried about their old age, and without them having children, life means nothing. It demonstrates clearly why in Africa, couples and individuals place premium in having their biological children.

These men have factors that remind them of their childlessness. These reminders or psychological triggers come in various forms. They indicated that seeing colleagues with their children, children playing among others reminds them of their challenge of infertility. This present finding is consonant with the previous results in Germany (Joshi, 2020), where men recalled their infertility the moment, they saw friends carrying their babies or seeing women carrying babies in a stroller. It appears that these men are now phobic when they see children. These men situation can led to mental disorder if not adequately managed. This current result is contradicting the earlier findings in Iran (Samadaee-gelehkolaee et al., 2016), where sexual intercourse reminds couples of their infertility. These psychological triggers or reminders make these men situations challenging to handle. Therefore, these reminders or triggers need to identify and managed adequately. To prevent couples or individuals to avoid or socially isolate themselves from people and other activities that can remind them of their infertility.

5.3 Cultural factors associated with men with infertility

In the Ghanaian culture, friends and family have different expectations from a freshly married couple, more especially the man. These men reported that people were expecting them to have children after marriage. Anything less than this cast

doubts on the masculinity or potency of these men. Congruent to this current finding is the previous finding reported by Abu-Rabia (2014), and Nieuwenhuis et al. (2009), where manhood and social recognition are derived from the number of children one had to prove his masculinity and sense of honour. It symbolizes that in Africa, giving birth to children demonstrate one's potency as a man. So, if one is not able to father a child, you are valueless. Therefore, these men viewed themselves to have a strong desired to be fathers due to everyday ridiculed within the community, which is a threat to their masculinity (Thomas, 2018). Also, these men recounted that these expectations from family and friends seem to be unachievable, making them feel worthless. This indicates that these men are losing contact with reality coupled with the shunning from society and family members, which may lead to suicide as found in a previous study (Zarrabi and Kruger, 2018). Similarly, as indicated by Hanna and Gough, (2020), these traumatic experiences of men with infertility result in stigmatization, leading to social isolation.

Sexual desire is fundamental when it comes to childbearing. It is equally vital to know the science and art of sexual intercourse to achieve a healthy pregnancy. Some of these men reported that infertility does not influence their sexual behaviour, claiming that they have sexual satisfaction in their marriages. This current study refutes the previous findings of Luk and Loke (2019), where men narrated lack of quality sexual life in their marriages. It signifies that these men and their wives understood each other well and satisfied each other's sexual needs. However, few of these men in the present study reported having issues of maintaining a penile erection during coitus and makes their sexual lives less

satisfactory. Also, few of these men reported that their wives refused them sex because they believed that at the end of the act, they would not conceive. It denotes that the wives of these men engaged in sexual intercourse only for pregnancy.

Few of these men recounted that since their wives were not getting pregnant, they had to resort to extra-marital affairs in an attempt to test their ability to have children as also found in Nigeria (Enwuru et al., 2020). This behaviour shows that promiscuity appears to be a strategy for men to prove their ability to have children. Nevertheless, this promiscuity could also be a sign of desperation among men with infertility.

Some of these men reported having the desired to comfort their wives to relieve them of the stress they are going through, which is not different from what Luk and Loke (2019), reported. It means that these men understand the burden of infertility on the social status of their wives. Again these men narrated that it is much better to have your biological child than anything else on earth, which is consonant with previous findings of Pacheco et al. (2011). It implies that giving birth to one biological child satisfied tradition and social functions. Thus, fulfilling the masculinity role as a man brings honour and integrity into the family. Therefore, children are a valuable asset to the man as they protect the family identity and integrity (Zandi et al., 2017). Hence biological children elevate one's self-esteem and integrate him into society, unlike adopted children.

5.4 Social factors affecting men with infertility

These men narrated that the desired for children required by family members and friends put pressure on them. This pressure usually comes from

mothers of these men demanding grandchildren to carry on their back before they die. Congruent with this current finding, men in Bangladesh were found to have been pressurized frequently by their family members to have children (Vashkar et al., 2016). This social pressure is seen as a nightmare for these men due to their fertility problems. As a result, these men are forced to seek infertility treatment. Nevertheless, these men, therefore, see this pressure as unnecessary, since they are trying their best to father children. However, few of these men in this study reported that they had not received any pressure from family and friends. It signifies that the families of these men understood what infertility is and the challenges they are facing. However, to demand grandchildren means they are obviously pushing these men to the brim.

When men experience infertility for so long in society, their status becomes questionable. These men with infertility reported that they are called names or statements made by others that marginalize them. For instance, people called them by using amusing but bizarre terms such as “he carries a fridge”, “impotent man”, “a cold-headed man” or made statements like; “your urine cannot displace a stone” and so on. Similarly, findings of other studies have shown that men experiencing infertility are being ridiculed in society just because they cannot father a child (Mumtaz et al., 2013; Rouchou, 2013). Consequently, these men would experience social stigmatization which can lead to social isolation, depriving them of peace of mind (Sykes et al., 2020). In this study, these men experiencing infertility narrated that because of friend’s utterances, they have distanced themselves from these friends. This new finding is consistent with the prior findings of Sykes et al. (2020),

where men with infertility experience social stigma and isolation. It means that the utterances coming from these friends are not pleasant. These friends usually make statements or comment like “I have two children”, “my children are attending this particular school” which men experiencing infertility feel they are ridiculous and scornful. However, few of these men reported that they relate very well with people in society. These men can relate well because they have decided to shield their condition from family and friends to prevent embarrassment and social stigma. Yet, these men with infertility will be suffering emotionally when issues related to childlessness surface in a discussion. Nevertheless, shielding this condition is self-injury, which is unfortunate.

Aside psychosocial crisis, these men are battling with the cost of treatment for infertility. These men recounted that the high cost of treatment (orthodox and herbal) for infertility had weakened their financial status. Consonant with this present study, findings from studies in Nigeria by Nieuwenhuis et al. (2009) and Rouchou (2013) indicated that the cost of investigations and treatment of infertility is expensive whether it is orthodox, local, or faith-based treatment. This suggests that the cost of treating infertility is financially demanding for the ordinary person to afford. Thus, without financial support, some of these men cannot continue to seek infertility treatment, and this may worsen their psychosocial crisis in society. Perhaps, if the National Health Insurance Scheme had captured infertility treatment, it could have lessened the financial burden of these men. Unlike Ghana, health insurance package had covered for the diagnostic procedure, IVF as well as a medical treatment for men experiencing infertility in Hungary and Germany (Sexty

et al., 2016). It means that these men have access to infertility treatment with fewer difficulties. This high cost of treatment in the biomedical field pushes the vulnerable men into the traditional, and faith-based healers' hands, who also try to extort them financially.

5.5 Marital factors affecting men with infertility

Marriage is to be enjoyed by two people. As these two people unite together, they are expected to procreate as society demands. These men narrated that infertility brings numerous problems in their marital homes. Among these problems are nagging, annoyance, quarrels, frustration, diminishing love and divorce tendencies. Congruent with this current finding is findings by Gul and Mushtaq (2018) indicating that couples experiencing infertility had less marital satisfaction and more marital conflict. It means that these men are not enjoying their marriages. Perhaps, this marital conflict would not occur if these men and their wives or partners had discussed these infertility issues into details. Sometimes these men did not want to accept the fact that they had infertility and seek treatment for it. But, they rather accused their women of this childlessness. Again, these men narrated that if not faith, they would have divorced their wives. Similar findings have been reported by Coskun et al. (2018) where women usually feel sad, afraid of getting divorced, and feeling of embarrassment for their husbands. However, it appears women value their marriages and would do anything to cement problems emanating from the marriage. Infertility weakens the marital affection of these men with severe psychological, social, emotional, and physical consequences, and the same applies to women with infertility (Mumtaz et al., 2013). In a marital conflict, the

couple experiences the same psychosocial problems, but the magnitude varies as a result of the choice of coping strategies. On the contrary, few of these men narrated that they are enjoying peace and love in their marriages because they understand each other well. It symbolizes that these men do not see procreation to be their major priority in their marriage. They value the marriage more and would do anything to hold the union together. However, in a marital conflict, women experience a higher level of infertility stress, marital adjustment, and depression than their husbands (Kim et al., 2018).

In a marriage, the desired to give birth is a mutual decision by the husband and wife. These men reported that aside from the parental and sibling pressure, their wives do not put any pressure on them. However, few of these men recounted how their wives threaten to divorce them or move to stay with their parents because they are not conceiving. This current finding corroborates with the findings reported in Saudi Arabia (Alosaimi et al., 2017), where men suffered more from an intrusive question and pressure to conceive, remarry, or get divorced. It means that there is a lot of pressure on these men from their wives, using divorce as self-defense. Mostly the threat to seek divorce happens when these men feel reluctant to seek treatment.

Generally, it appears women also suffered from stress, fatigued, marital conflict, and negative attitude from mothers-in-law or society. The intrusion of family and society into the affair of the couple usually lead to marital disputes and divorce tendencies.

5.6 Opinions on the cause of infertility

There are diverse opinions about the causes of infertility in Africa. Participants had different opinions about the causes of their infertility. Some of these men believed that God and nothing else caused their infertility. This present finding corroborates the findings of Rouchou (2015), where men believed that it is God who gives children, and therefore, their infertility is due to God's plans. This symbolizes that these men attributed the cause of their infertility to God only. A study finding reported by Enwuru et al., (2020), indicates that men believed that their infertility was caused by gods and witches, which is inconsistent with the present finding. For these men, their infertility is caused by God only.

Other men indicated that they have had sexual intercourse with their wives, but had no results to show for it. Thus, they wondered what had happened to them about fathering a child, and this way of thinking was similarly narrated in Japan and Nigeria (Asazawa et al., 2019; Enwuru et al., 2020). This means that the creation of awareness about male infertility will be a step in the right direction. In contrast, studies elsewhere have attributed the causes of infertility to engaging in pre-marital sex, bewitchment, 'juju', having sex with elderly women, being circumcised, improper handling of babies at birth, and using sperms for rituals (Enwuru et al., 2020; Gamel et al. 2019; Odek, Egesah, & Masinde, 2014). These are evidence suggesting the numerous superstitious causes attributed to infertility. Hence having diverse opinions about the causes of infertility would help in widening the scope for health education on infertility in general. This is an

indication that health providers need to understand the socio-cultural factors associated with infertility for better client education.

5.7 Motivational factors for seeking help

People are motivated to seek infertility treatment when they are exposed to useful information amidst affordability as a significant challenge to seeking infertility treatment. Some participants narrated that the purpose of seeking help to treat their infertility was personally motivated. Perhaps the personal instincts that motivated these men to take this bold decision of seeking treatment should be applauded. However, some men cannot make a personal decision in seeking infertility treatment, probably for fear of being stigmatized.

Congruent with previous literature, these men reported that family and friends motivated them to seek for both herbal and orthodox treatment for their infertility (Glazer et al., 2020). This means that significant people in their lives played a pivotal role for these men to seek treatment. For many of these men, the failure of herbal treatments served as a push factor which motivated them to seek orthodox treatment, as reported in a previous study (Parrott, 2014).

5.8 Treatment of infertility

Medically, the treatment of infertility depends on the caused and varies from expert to expert. Men narrated that they contacted different consultants from different clinics or hospitals for infertility treatment. This implies that these men moved from one health facility to the other or one consultant to the other to seek treatment. They were perhaps moving from one health facility or consultant to the other shows how desperate these men are to father children.

In a quest to address infertility issues, people explored herbal treatment to see whether it would work for them to have children. In this current study, these men narrated that the herbalist they consulted gave them some herbs and concoction to use, which are not different from other forms of treatment reported in the past (Alosaimi et al., 2017; Moyo, 2013). Therefore, there is a need to investigate the usefulness of this herbal treatment for infertility.

5.9 Treatment preferential

Medical preference for treating infertility is recognized worldwide for its efficiency and effectiveness as also attested by some of these men, probably because of the consistent failure of an earlier choice of herbal medicine. Divergent views were narrated by a few of these men where they vowed not to use medical treatment because of its cost and treatment failure. These preferences are indications that some of these men may be in a state of ambivalence about the treatment of choice.

Meanwhile, these men lamented about being excluded, from some discussions when they visit the hospital or clinic with their spouse/partner. They claimed that doctors or specialists usually pay more attention to women at the expense of men. These complaints seem to be worldwide as men in other parts of the world similarly reported being excluded from discussions at the fertility clinics (Hinton & Miller 2013; Schick et al., 2016; Sylvest et al., 2016a). It is worth mentioning that such healthcare-related behaviour appears to suggest that infertility is disproportionately a female problem, which is misleading to the men.

5.10 Social support available for men with infertility

Some of these men narrated that some significant others provided them with emotional and moral support in the form of encouragement to seek treatment, which is consonant with findings from previous studies reported in Japan and the UK (Asazawa et al., 2018; Hanna & Gough, 2016). It is heartwarming to note that men with infertility appreciated social support from significant others because social support is an appropriated psychosocial remedy in the management of infertility. Comparable findings reported by Hanna and Gough (2018) and Rouchou (2013) have also indicated men with infertility appreciating social support. Hence, social support has a significant impact on reducing stress in individuals and couples with infertility (Mizaei-Moghadam et al., 2019). However, in Iran, Nigeria and Poland, men benefited less from social support (Kroemeke & Kubicka, 2018; Nieuwenhuis et al., 2009; Zandi et al., 2017). Therefore, family and friends are encouraged to continue providing these men with the necessary support they need to deal with their infertility.

Financial support is crucial for these men who are seeking infertility treatment. Some of these men narrated that they had received some monetary assistance from families and friends, which they described as part of social support. Contrary to these findings reported in the present study, previous studies in Iran (Zandi et al., 2017) and Nigeria (Nieuwenhuis et al., 2009) reported lack of financial support for men experiencing infertility. Perhaps integrating health insurance packages for infertility treatment may help address the financial difficulties experienced by some of these men.

5.11 Summary of discussion

The findings of this study demonstrated that men with infertility experience numerous psychosocial problems. Again, they tend to adopt diverse coping strategies to deal with their social problems. Therefore, these men desire a variety of social support to face the challenges of infertility.

The current findings showed that men with infertility attribute the cause of their infertility to God and the work of supernatural forces. Also, the present findings revealed that these men were inspired by family members, friends, the failure of herbal treatment, and social pressure to seek infertility treatment. The treatment modality used included medical, local, and faith-based treatment.

Moreover, these findings show that some of these men prefer medical treatment to other treatments and are willing to use modern methods to assist them in conceiving provided the sperm will come from them. On the contrary, few of these men reported that health providers excluded them in the treatment process but rather placed emphases on their wives when seeking treatment.

The biopsychosocial model has psychological, biological, and social constructs. In this study, the men experienced numerous psychological and social problems which need diverse coping strategies. Meanwhile, cultural and religious beliefs are influencing the wish for these men to have biological children.

CHAPTER SIX

SUMMARY, IMPLICATIONS, LIMITATIONS, CONCLUSION, AND RECOMMENDATIONS

This chapter presents a summary of the study, implications of the findings, and limitations of the study, conclusion, and recommendations.

6.1 Summary of the study

Male infertility is the inability of a man to impregnate a woman after a year of unprotected sexual intercourse. In Africa and Ghana, having children is prestige to couples and the family as a whole. Men with infertility are marginalised, stigmatised, and labelled in several ways. Societal outlook and norms found are influential factors for those experiencing infertility. Yet little is known about male infertility in Ghana. The biopsychosocial conceptual model was used as a guiding framework to explore the psychosocial experiences of men with infertility.

A review of the literature was drawn from qualitative and quantitative studies on male infertility. Studies were mainly recounting lifestyles, coping strategies, treatment, experiences, care-seeking behaviour pattern, and psychology of men with infertility. It was concluded that there are adequate studies from different parts of the world; however, there is little empirical evidence on the psychosocial experiences of men with infertility in the northern part of Ghana.

The study employed a qualitative exploratory descriptive research design. An introductory letter (appendix B) from the School of Nursing and Midwifery of the University of Ghana was obtained for the study. Prior to the beginning of data

collection, ethical clearance was sought from the NMIMR-IRB ethical board of the University of Ghana (Appendix A). Consent was sought from men with infertility who came to the natural solution herbal clinic for treatment (Appendix C). Data were collected via face-to-face in-depth interviews using a semi-structured interview guide (Appendix E). Each interview was audio-recorded, and transcribed verbatim while data were also manually analyzed using thematic content analysis. Guba (1994) and Lincoln and Guba (1985) were the criteria employed to ensure methodological rigour. Data collection, transcription, and analysis lasted between January–June 2020.

Nine major themes with thirty-three sub-themes were derived after a thematic content analysis was done. The major themes were; psychological experiences of men with infertility, a cultural factor associated with men with infertility, social factors affecting men with infertility, marital factor affecting men with infertility, opinion of the causes of infertility, motivational factors to seek help, treatment of infertility, treatment preferential, and social support available for men with infertility.

Men with infertility experience numerous psychological challenges (attitude/belief, behaviours, emotions, coping skills, mental disturbance, self-esteem, life perception, and psychological reminders) as they go through the trajectory to become fathers. These men had misconceptions about themselves and blamed their wives for their childless situation. The emotional trauma these men go through is depression, anxiety, and distress. They adopted diverse coping mechanisms to deal with these emotional problems. Also, the childlessness situation affects these men's self-esteem and life perception as a whole.

6.2 Implications of the findings

The findings from this study have implications for nursing practice, policy formulation, and future research.

6.2.1 Implications for Nursing Practice

Findings from this study indicated that men experiencing infertility encounter numerous psychological problems from the family, community and society at large. This implies that the actions of the people in society towards these men are unpleasant, therefore nursing practice can help address these problems by engaging the services of a clinical psychologist or professionally trained counsellors in the various fertility clinics and hospitals. These professionals would advise these men to use an excellent coping mechanism to adapt to the pressure coming from their families, community and society at large.

These men reported facing pressure from family to give birth. Nursing practice can aid to address this problem by educating and involving family and friends in managing these men infertility. Health providers can educate these men family members and friends about infertility.

Also, these men reported that they had been excluded from procedures and treatment when they visited the health facility, and care was focused on their wives. This implies that these health providers seem to protect privacy and maintain the confidentiality of their clients. Nurses can assist in addressing this issue by including these men in the treatment process. Health providers should always

involve men when caring for their wives for them to provide the care and support their wives need.

Moreover, the behaviour and attitude of people in society towards these men created a mixed feeling. This implies that the behaviour and attitude of people in society towards these men is either friendly or unfriendly; thus, this causes discomfort to them. Nursing practice can support to address this discomfort these men are experiencing by educating the society about infertility. Health providers need to educate the family members, friends, and the entire society about infertility, causes, and treatment available for couples and individuals with infertility.

6.2.2 Implications for Policy Formulation

It was advanced from the findings that men with infertility face financial challenges when seeking infertility treatment. The implication is that the cost of infertility treatment is expensive, especially medical treatment for men experiencing infertility. Hence policy is required to integrate infertility treatment into the National Health Insurance Scheme package to cover for medical procedures, investigations, and treatment for these men.

The findings demonstrated that these men experienced numerous psychological problems as a result of the childlessness. Therefore, a policy is required to ensure that all fertility clinics should have a clinical psychologist or trained professional counsellor, to attend to the psychological needs of these men.

Also, the present finding indicates that some of these men patronize herbal treatment due to Ghanaian cultural and religious beliefs. Thus, stakeholders can

consider developing a policy to integrate herbal and orthodox treatment to harmonize the management of infertility in health facilities.

6.2.3 Implications for Future Research

These men experience psychosocial crises in their daily lives. There is, therefore, the need for further quantitative research to be conducted on this phenomenon, to establish the association between the constructs of the model, and types of infertility. Also, research can be conducted to examine the magnitude of psychosocial crisis these men are experiences in the metropolis. This will give a more comprehensive view of male infertility.

6.3 Limitations of the study

This current study has encountered some limitations. The interview was conducted in Dagbani (local language) and transcribed into the English language. During the transcription process, some words or statements may not convey the direct meaning; hence the researcher used statements or words closest in meaning to those words or statements. These words or statements were cross-checked with the participants to ensured member checking. Also, purposive sampling was used to recruit fourteen (14) participants as a sample size for the study. Because of the sample size, transferability may be done with caution when applying findings to settings or groups with similar features.

6.4 Conclusion

Infertility is a public health concern and a life-threatening situation for these men. These men experience numerous psychosocial problems in their daily lives. These men need clinical psychologist /professionally trained counsellors in the

various fertility clinics and hospitals to address the needs of these men. Men experiencing infertility desire assistance in seeking infertility treatment. Therefore, there is a request for policymakers to have an insurance package for people experiencing infertility.

6.5 Recommendation

Based on the findings of the study, the following recommendations have been made for the Ministry of Health (MoH) and Ghana Health Service.

6.5.1 Ministry of Health (MoH)

The Ministry of Health (MoH) should:

- Develop policies that would integrate orthodox and herbal treatment of infertility in hospitals.
- Develop insurance packages for couples and individuals with infertility.
- Educate the general public about the causes, treatment available, and prevention of infertility through the media to reduce stigmatization.
- Establish fertility clinics in all sub-district, district, municipal, and metropolitans and equip them with human and logistics resources to work.
- Enact policies that would ensure that all health facilities have a clinical psychologist or expert trained counsellor to support the psychological needs of people with infertility.

6.5.2 Ghana Health Service (GHS)

The GHS should:

- Educate men about infertility and the general public as well.

- Educate families about infertility, causes, treatment available, and prevention to reduce social stigma.
- Provide social support for clients with infertility.
- Involves men in medical procedures and treatment processes when providing care to their wives with infertility.

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APPENDICES

Appendix A: Ethical clearance

NOGUCHI MEMORIAL INSTITUTE FOR MEDICAL RESEARCH
Established 1979A Constituent of the College of Health Sciences

University of Ghana

Phone: +233-302-916438 (Direct)
E-mail: nirb@noguchi.ug.edu.gh
Telex No: 2556 UGL GH

INSTITUTIONAL REVIEW BOARD



Post Office Box LG 581
Legon, Accra
Ghana

My Ref No: DF22
Your Ref. No:

8th January, 2020

ETHICAL CLEARANCE

FEDERALWIDE ASSURANCE FWA 00001824

IRB 00001276

NMIMR-IRB CPN 031/19-20

IORG 0000908

On 8th January 2020, the Noguchi Memorial Institute for Medical Research (NMIMR) Institutional Review Board (IRB) at a full board meeting reviewed and approved your protocol titled:

TITLE OF PROTOCOL : Psychosocial experiences of men with infertility in the Tamale Metropolis

PRINCIPAL INVESTIGATOR : Mohammed Mujahid Baba MPhil Cand.

Please note that a final review report must be submitted to the Board at the completion of the study. Your research records may be audited at any time during or after the implementation.

Any modification of this research project must be submitted to the IRB for review and approval prior to implementation.

Please report all serious adverse events related to this study to NMIMR-IRB within seven days verbally and fourteen days in writing.

This certificate is valid till 7th January, 2021. You are to submit annual reports for continuing review.

Signature of Chair:

Mrs. Chris Dadzie
(NMIMR – IRB CHAIR)

Appendix B: Introduction Letter



UNIVERSITY OF GHANA
DEPARTMENT OF MATERNAL AND CHILD HEALTH
SCHOOL OF NURSING

Ref. No.:.....10294665.....

November 20, 2019

The Medical Officer
Natural Herbal Clinic
Tamale, Norther Region

Dear Sir/Madam,

LETTER OF INTRODUCTION

I write to introduce to you **Mohamed Mujahid Baba**, an M.Phil student in the Department of Maternal and Child Health, School of Nursing and Midwifery, University of Ghana, Legon.

As part of the requirement of the M.Phil programme, the student is to undertake a research study. He intends to use the Natural Herbal Clinic, Tamale as the study site. The title of his research is "Psychosocial Experiences of Men with Infertility in the Tamale Metropolis."

It will be appreciated if he is given the necessary assistance.

Thank you.

Yours faithfully,

A handwritten signature in black ink, appearing to read 'Florence Naab'.

Dr. Florence Naab
Head of Department

Received on 10th Jan 2020
**THE DOCTOR
NATURAL SOLUTIONS
HERBAL CLINIC
TAMALE**

COLLEGE OF HEALTH SCIENCES

• P.O. Box LG-43, Legon, Accra, Ghana.
• Email: mch_son@mch.ug.edu.gh

• Telephone: +233 (0) 302 513 250 / 0289 531 213
• Website: www.nursing.ug.edu.gh

Appendix C: Consent Form



NOGUCHI MEMORIAL INSTITUTE FOR MEDICAL RESEARCH (NMIMR)
COLLEGE OF HEALTH SCIENCES, UNIVERSITY OF GHANA, LEGON

INSTITUTIONAL REVIEW BOARD

sNMIMR-IRB CONSENT FORM TEMPLATE

Title: **Psychosocial experience of men with infertility in Tamale Metropolis**

Principal Investigator: Mohammed Mujahid Baba

Address: School of Nursing and Midwifery, College of Health Sciences, University of Ghana

Tel: 0246750746 Email: bfirstnamemohammedmujahid@yahoo.com

General Information about Research

The study seeks to obtain the thoughts and opinions of men who have difficulties to impregnate their wives or partners. Their knowledge regarding their inability to impregnate a woman, **and how family and society influences your inability to make your wife pregnant** as well as how you deal with the situation. You are invited to participate because you have been seeking treatment for fertility problem. If you are willing to participate you will have to sign or thumbprint a form and attend an interview to share your thoughts. This interview will take 30 minutes to one hour. The interview will be audio recorded with your permission. You have the right not to answer any question you are not comfortable with. You can also choose not to participate in this study without any consequences. The interview process will take place at a venue of your choice and at your convenience.

Possible Risks and Discomforts

There are no known risks connected with your participation in this study. But, statement or questions asks may trigger past memories, so you can choose not to answer any question that makes you uncomfortable. However, a Clinical Psychologist will be present to handle any emotional breakdown. The name of the Psychologist is Mr. Emmanuel Dziwormu and his telephone number is 0249650076.

Possible Benefits

There will be no direct benefits to you. However, the information you will provide will be used to educate other men in the future





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Confidentiality

Information gathered will be available to me (researcher) and my supervisors, your information, will be destroyed after five years. Personal information about you will be coded to prevent identification. Also, publication from this study will not include any information that can be used to identify you.

Compensation

You will be given snacks, pen and a book as compensation for your time after the interview.

Voluntary Participation and Right to Leave the Research

Your participation in this study is voluntary as such you have the right to decide whether to participate or not. You may also withdraw from the study without a penalty and please note that withdrawing from this study will not affect you in any way.

Contacts for Additional Information

In case you need clarification about this research, you may reach me or my supervisors through the contacts provided below:

Researcher: Mohammed Mujahid Baba

Address: School of Nursing and Midwifery, College of Health Sciences, University of Ghana.

Email: bfirstnamemohammedmujahid@yahoo.com Tel: 0246750746

Supervisors: Dr. Florence Naab

Address: Head, Maternal and Child Health Department, School of Nursing and Midwifery, College of Health Sciences, University of Ghana. Email: fnaab@ug.edu.gh Tel: 0263741717

Second supervisor: Dr. Josephine Kyei

Address: School of Nursing and Midwifery, College of Health Sciences, University of Ghana.

Email: jmkyei@ug.edu.gh Tel: 0208154212



Appendix D: Volunteer Agreement



NOGUCHI MEMORIAL INSTITUTE FOR MEDICAL RESEARCH (NMIMR)
COLLEGE OF HEALTH SCIENCES, UNIVERSITY OF GHANA, LEGON

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Your rights as a Participant

This research has been reviewed and approved by the Institutional Review Board of Noguchi Memorial Institute for Medical Research (NMIMR-IRB). If you have any questions about your rights as a research participant you can contact the IRB Office between the hours of 8am-5pm through the landline 0302916438 or email addresses: nirb@noguchi.ug.edu.gh

VOLUNTEER AGREEMENT

The above document describing the benefits, risks and procedures for the research title **Mohammed Mujahid Baba** has been read and explained to me. I have been given an opportunity to have any questions about the research answered to my satisfaction. I agree to participate as a volunteer.

Date

Name and signature or mark of volunteer

If volunteers cannot read the form themselves, a witness must sign here:

I was present while the benefits, risks and procedures were read to the volunteer. All questions were answered and the volunteer has agreed to take part in the research.

Date

Name and signature of witness

I certify that the nature and purpose, the potential benefits, and possible risks associated with participating in this research have been explained to the above individual.

Date

Name Signature of Person Who Obtained Consent



Appendix E: Interview Guide



**NOGUCHI MEMORIAL INSTITUTE FOR MEDICAL RESEARCH (NMIMR)
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INSTITUTIONAL REVIEW BOARD

Data Collection Instruments

Psychosocial experience of male with infertility

INTERVIEW GUIDE

Section A

Personal Data:

Please tell me about yourself

Age. Sex. Occupation. Religion. Tribe. Education.

Section B

Psychological experiences

1. Can you share with me how you felt when you were told that, you have infertility?
2. As a married man with this condition, how have you been feeling deep in you?
3. What reminds you of this situation?
4. What are normally your feelings or reactions as you remember?
5. How do you perceive life in this situation?
6. Looking at all that you have shared with me, how do you adjust to the problem at hand?

Social Experiences

1. Can you kindly share with me your life situation in your matrimonial home about the diagnosis of this problem?
2. Considering our culture which is full of the need for children, what are some of your experiences in relation to your relatives, wife, her relatives, and friends?



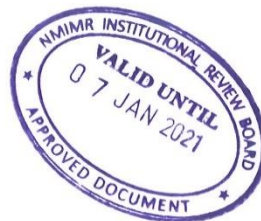


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3. From your experiences, how does society look at you?
4. From your understanding of the situation, how will you compare your position in society before and after the diagnosis?
5. Can you please describe how you relate to people before and after the diagnosis?
6. Can you share with me the general situation regarding your seeking help?
7. What are the factors that make you come to the hospital seeking help?
8. Have you tried using other ways of treatment before coming to the hospital?
9. Were you asked by someone to come to the hospital or you made the decision by yourself?

THANK YOU



Appendix F: Thematic Codes and Description

Table 4.3

Description of thematic codes

Code	Description
Psychofac	Psychological factors of men with infertility
Culfac	Cultural factor associated with men with infertility
Socfac	Social factors affecting men with infertility
Marfac	Marital factor affecting men with infertility
Opiocau	Opinion of the cause of infertility
Motfact	Motivational factor to seek help
Treat	Treatment of infertility
Trepre	Treatment preferential
Sosupport	Social support available for men with infertility