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Psychosocial and Cultural Effects of Infertility In Eastern And Southern Africa: A Narrative Review

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Abstract
This study sought to explore the psychosocial and cultural effects of infertility for both men and women in Eastern and Southern Africa and analysed available support services for these effects. The study conducted a desk review of existing literature identified from four electronic databases. Eighteen relevant papers on psychosocial and cultural effects of infertility and support services/programs from Eastern and Southern Africa that met the inclusion criteria were identified and thoroughly examined. A modified conceptual framework from White et al. was used to understand the lived experiences of infertility at different levels of social interaction. The findings from the selected papers show a wide range of negative psychosocial effects such as the feeling of worthlessness, loss of purpose in life, divorce/abandonment, intimate partner violence and stigmatisation. Most of these effects were observed among women, especially those affected by primary infertility. A wide range of severity of consequences was presented across the papers, including extremes of suicidal thoughts and attempts. There is a notable gap in availability of psychosocial support for those affected by infertility owed to a lack of understanding of the social and cultural influence on infertility experiences. The study concluded that infertility is regarded as a deviation from the norm and creates immense suffering for those who remain childless. Infertile individuals/couples are faced with an increased risk of psychological problems because of the stigma/challenges associated. Women carry the most burden, but men should not be side-lined. This study provides several recommendations, including a community approach in the recruitment process, increased awareness of infertility and provision of counselling services.
Keywords: *Infertility, Psychosocial, Cultural*

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I. Introduction

Parenthood is among the strongest desires of adulthood universally. The motivation to have children differs between cultures, with a wish for individual happiness and fulfilment being a common reason universally. Several existing reasons include religious compliance, social expectations, family lineage continuation, economic productivity, and social security during old age (Hammarberg & Kirkman, 2013). The achievement of parenthood is not only a mark of adulthood but a right to acquisition of respect in many Sub-Saharan Africa (SSA) communities (Dyer, 2007).

Failure to achieve parenthood (infertility) in most SSA countries presents much anguish to the couple and the wider family and community. This is notably due to the value placed in cultural and social relations enhanced by the continuation of family lineages (Pearce, 1999). The physical and psychological aftermaths of infertility have been recognised as a significant concern for public health by the World Health Organisation (WHO) (Boivin et al., 2007).

Psychosocial effects are defined as experiences resulting from "environmental and biological factors on an individual's social or psychological aspects" (de Oliveira et al., 2013). Within healthcare research, psychosocial factors include effects of the social structural factors on one's health mediated and conditioned by the social contexts in which they live (Martikainen et al., 2002), expressed as an outcome of an individual's reaction reflected from the reaction of those around them.

These effects are multidimensionally constructed, including different domains like a cognitive behavioural response (self-esteem, self-efficacy and satisfaction), mood states (depression, anxiety, positive affect and distress) and social factors (education, employment, religious practices, relationship with others, community roles and status) (Suzuki & Takei, 2013).

Over the past few decades, there has been an increase in infertility research across the globe, but with fewer studies conducted in low-income countries (LICs) compared to high-income countries (HICs) (Polis et al.,

2017). Most studies have primarily explored infertility as a medical phenomenon. This has caused the missed opportunity for an in-depth understanding of infertility from the social and cultural lens, particularly in SSA, where there already exists a gap in research (Kudesia et al., 2018).

Infertility is among the components that make up reproductive health, including adolescent reproductive health, safe motherhood, abortion services, sexually transmitted infections (STIs), fertility regulation and gender issues (Vaughan & AbouZahr, 2000). Reproductive health denotes an individual's right of freedom to choose when and how often they reproduce. This right has clearly stated in Article 16:1 of the United Nations Declaration of Human Rights that states, "Men and women of full age, without any limitation due to race, nationality or religion, have the right to marry and to found a family…" (United Nations, 1948). During the 1994 United Nations International Conference on Population and Development (ICPD) in Cairo, Egypt, the agenda towards infertility included raising awareness, increased research and advancing infertility treatment (United Nations, 1995). Infertility, however, remains a persistent major reproductive health problem worldwide with devastating effects on the individual.

II. Literature Review

Several studies have reported the harsh social and emotional turmoil faced by individuals and couples faced by infertility. Higher rates of depression and psychological distress have been documented (Dierickx et al., 2019; Nieuwenhuis et al., 2009). A combination of personal and social expectations creates a sense of loss and failure, accompanied by feelings of exclusion. Couples' relationships can be strained, with several studies reporting the significant burden of infertility on women (Weinger, 2009).

Despite the advancement in treatment technology that enables an individual or a couple to achieve parenthood, lack of incorporation of social and cultural understanding of the consequences of infertility has made treatment a gruesome process accompanied by the already existing setbacks of inaccessibility of specialist care and high financial burden involved in most SSA countries (Nachtigall, 2006; Ombelet, 2011). Culture plays a significant role in determining how individuals in a community experience and define their reproductive health and, subsequently, how reproductive health problems, including infertility, are treated within medicine systems (Sundby, 1997). Understanding infertility as both a social construction and a reproductive impairment is vital to appropriately provide interventions that benefit an individual (both physically and mentally)**.**

One of the significant socio-cultural factors that influence infertility is gender (Dudgeon & Inhorn, 2009). Gender can be explained as socially constructed roles, activities, attributes, and behaviours assigned to men and women in a given society and embedded in daily life (Brickell, 2006). Women's primary gender role in most parts of the world, despite observed changes, is that of procreation and men that of the breadwinner and protector (Dimka & Dein, 2013). These roles are deeply rooted in an individual's consciousness for most of their lives and impact the sense of self and identity. The extent of the social and cultural effects may, somehow, contribute to the increased difficulty in adjustment for women. Studies of infertility and masculinity have, on the other hand, demonstrated the presence of social and cultural effects faced by men who have infertility, citing it as a loss of masculinity in the social-cultural realm (Dudgeon & Inhorn, 2009). Male infertility has been cited as among the most stigmatising of male health problems (Inhorn, 2004). An understanding of the similarities, differences, and extent of psychosocial and cultural effects of infertility on both men and women in the SSA context is essential to analyse and develop appropriate individual and supportive social interventions that can enhance treatment and wellbeing.

CONCEPTUAL FRAMEWORK

A slightly adapted version of the social-ecological model employed by White et al. (2016) was used in this review to categorise the emerging themes into individual, partner/couple, social (renamed 'family' in this review) and structural (renamed 'community' to represent contexts in other social relationships outside the family as well as cultural and social institutions). An overarching gender perspective was added to analyse the difference and similarities of the effects between men and women concerning the topic. The same framework model will be used to analyse existing interventions.

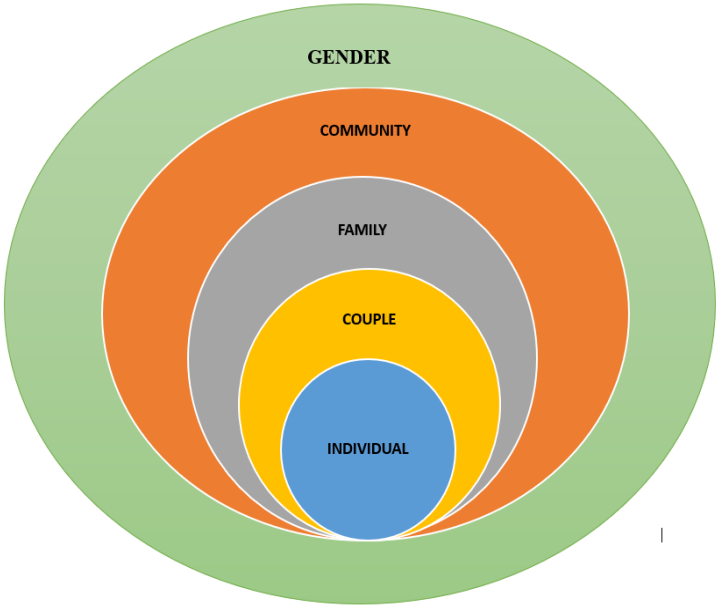

Figure 1. An adapted conceptual framework of effects of infertility at different levels of human interaction (White et al., 2016).

III. Research Methodology

This is a narrative desk review conducted to analyse the psychosocial and cultural effects of infertility, explore gendered differences and similarities, and analyse strengths and weaknesses/gaps in existing support programmes and services in the context of Eastern and Southern Africa.

Studies analysed in this review were electronically obtained from four health-related databases: Medline, Scopus, Psych Info, and PubMed. Available published and unpublished research documents obtained on the study subject were included. Google Scholar and a snowball search of relevant literature from reference lists obtained were also conducted. No time limit was applied during the initial search of the databases for practical reasons but was used while scanning relevant literature for review. Manual scanning of the identified literature was limited to papers and research done after September 13, 1994, reflecting on the time when infertility gained international attention at the ICPD (United Nations, 1995).

The literature search was conducted using keywords identified from the main concepts of the research questions, which are infertility, psychosocial and cultural, gender, support programmes or services related to the effects of infertility. An initial subject heading search was conducted to identify relevant literature that aided the construction of a more detailed search strategy per the keywords identified. Identified keywords and medical subject heading (MeSH) terms were combined using the Boolean terms.

For the infertility concept, MeSH search terms for the keyword was conducted and linked to synonyms searches including subfertility, sterility, impotence and childlessness using the Boolean operator OR (infertility OR infertil* OR subfertil* OR sub-fertil* OR steril* OR impotence OR childless*). The second concept of psychosocial and cultural effects was also searched as a MeSH term and linked to synonyms psychological, social, and socio-cultural using the Boolean operator OR (psychosocial OR cultural OR psychologic* OR soci*).

The main literature search of the four databases (Medline, Scopus, Psych Info and PubMed) was conducted in June 2020 using the Queen Margaret University (QMU) online library.

A total of 1,471 papers were identified from the searched databases. The titles from each database were scanned for with a relevant focus on the study aim resulting in a reduction to 91 papers. Many eliminated studies focused on the biomedical aspects of infertility and mainly assessed the cultural or social meaning of infertility rather than the effects. Removal of duplicates using the Mendeley software narrowed down the number to 44 papers. Twenty-four papers were further excluded due to not meeting the inclusion/exclusion criteria, mainly focusing on infertility's cultural or social meaning rather than its effects. These were exported to the software Mendeley for future full-text search. Through a manual search of reference lists and google, only one relevant paper was obtained, bringing the total to 21. Full texts of 3 articles were not obtained, bringing the final papers for full-text review to 18. A visual representation of the process can be seen in figure 1 below. Full texts of the papers were retrieved from the relevant journals in the QMU library through GOOGLE scholar and other external sources.

IV. Results

Out of the 18 selection studies, 14 papers solely utilised qualitative study methods, while the remaining four were mixed methods research (MMR) using both qualitative and quantitative methods.

Effects of Infertility

This section presents the psychosocial and cultural effects of infertility according to White et al. (2016)'s socio-ecological framework described above.

Individual Effects

Several individual aspects can be identified: emotional pain, psychological effects, loss of life's purpose and identity, and damaged self-esteem and guilts. These will now be discussed in turn.

Emotional pain

The most frequently observed effect of infertility was intense emotional pain felt by those faced with infertility problems (Dyer et al., 2002). These feelings were expressed in several forms, including but not limited to anger, desperation, deep sadness, loneliness, valuelessness and uselessness (Gerrits 1997; Aseffa 2011; Dhont et al. 2011; Bakare and Gentz 2020) due to the inability to have children like other members of the community.

Psychological effects

Another significant finding at the individual level was a range of psychological effects. Depression, though not clinically diagnosed, was cited in several studies as a significant outcome of infertility among men and women (Dhont, 2011; Dyer et al., 2002; Mogobe, 2005; Runganga et al., 2001). This was often accompanied by feelings of anxiety **(Bakare & Gentz, 2020; Mabasa, 2005)** and constant fear of being abandoned **(Hollos & Larsen, 2008)**. Although psychological effects were presented in almost all studies, in Kenya, Odek et al. (2014) presented a weak correlation between infertility and psychological effects as observed in a study in Sweden (Holter et al., 2007).

Loss of purpose in life

Having a child was seen as giving life purpose for both women and providing a form of identity in the community. For many study participants in several studies, feelings of loss in a purpose for one's life were encountered once they faced infertility (Dyer et al., 2002; Runganga et al., 2001). The desire to fulfil this purpose in life was powerful, and both men and women expressed their willingness to do "anything" to fulfil it (Dhont, 2011; Dyer et al., 2002). Although the feeling of loss in life's purpose was a general finding, other socio-economic responsibilities such as taking care of other siblings' children and family members provided a level of fulfilment (Dhont et al. 2011; Parrott 2014). In some instances, the loss of purpose in life caused some men and women to consider ending their own life (Dyer et al., 2002; Mabasa, 2005; Mogobe, 2005). Study participants in Moyo (2013) commented on the high rate of suicide among infertile men in Mhondoro-Ngezi.

Damaged self-esteem and loss of identity

Among other significant findings in the analysis was decreased levels of self-esteem and feeling of loss of identity for both men and women (Mogobe, 2005; Parrott, 2014). The desire to be identified as a "complete" man (Mabasa, 2005; Runganga et al., 2001) or woman much depended on one's ability to have children (Mabasa, 2005).

Feelings of guilt

Women were observed to express a lot more guilt for not having children than the men in most studies (Dyer et al., 2002; Parrott, 2014). The only exception to this was the study by Dhont, van De Wijgert et al. (2011), which indicated a higher level of guilt in men than women. This is likely to be related to the high value placed on a woman's reproductive role. Women describe feeling guilty of being failures to continue the family line, often from being blamed by their husbands and in-laws for "finishing the family" (Dhont et al. 2011).

Couple or Partner Effects

Marital instability

Given the importance of childbearing within a marriage or union within the communities in these studies, divorce or separation was among the commonest couple effect presented (Runganga et al. 2001; Dyer et al. 2002; Mabasa 2005; Aseffa 2011; Dhont et al. 2011; Moyo 2013; Odek et al. 2014; Parrott 2014; Bakare and Gentz 2020; Bornstein et al. 2020). The fear and expectations of being abandoned or divorced were more common in women (Dyer et al., 2002; Mogobe, 2005) than in men. One study reported that men sometimes still abandoned women despite being the one who is infertile (Moyo, 2013). Gerrits (1997) showed that women in the Mozambique study were less likely to have these worries as their primary goal and concern was to have children and not to stay with their husbands (Gerrits, 1997). Most men and women presented in the studies had a history of several divorces or separations due to infertility (Aseffa, 2011). Socio-economic, religious factors, having a supportive partner and partner (often the man) having other children were observed to be some of the reasons for some couples to stay together despite not having children (Aseffa, 2011; Dyer et al., 2002; Hollos & Larsen, 2008).

Couple divorce was also seen to be encouraged by family and friends. Men were often encouraged to divorce a woman on the grounds of infertility, despite sometimes not having an established male or female infertility factor (Aseffa, 2011; Hollos & Larsen, 2008; Parrott, 2014; Runganga et al., 2001). The exception of this is the study by Gerrits (1997) among the matrilineal communities in Mozambique where the women's relatives played a role in encouraging divorce. Hollos and Larsen (2008) also reported the differences in pressure to divorce between couples with fewer children and those who had none.

Infidelity was a common finding in several of the studies. The desire to have children seemed to push both men and women into extramarital affairs in the attempt to conceive (Bornstein et al., 2020; Dhont et al., 2011a; Dyer et al., 2004; Mabasa, 2005; Moyo, 2013; Runganga et al., 2001) . This tendency was also observed to come in the form of advice from close family and friends and was viewed as acceptable in the communities. Although often practised in secret (Bornstein et al., 2020; Moyo, 2013), extramarital affairs were also known to and encouraged by the partner (mostly women) (Dhont et al., 2011a; Mogobe, 2005) or arranged and agreed upon by the couple (chose the person together) (Bornstein et al., 2020). Women seemed to be more accepting and were expected to be accommodative towards extramarital affairs and children, and the opposite was experienced and expressed for men (Aseffa, 2011; Dhont et al., 2011a; Dyer et al., 2002). Another finding in the infidelity realm was the practice (Moyo, 2013) and acceptance of women having extramarital sex with the husband's close relative to preserve the shame within the family and the man's status (Mabasa, 2005; Runganga et al., 2001).

Extramarital affairs also presented in the form of remedy seeking where, most often, women were advised to have sexual encounters with traditional healers to assist in resolving their infertility problems (Aseffa, 2011; Runganga et al., 2001) or advised by traditional healers to partake in extramarital affairs (Gerrits, 1997). Polygamy was cited as a result of infidelity, as well as a solution to avoid divorce/separation, especially when the man can father a child from an extramarital affair (Aseffa, 2011; Dhont et al., 2011a). Another interesting finding was a lack of trust developed when a woman finally conceives (Parrott, 2014). Secondary infertility in a woman resulted in questioning the legitimacy of the first pregnancy (Bornstein et al., 2020) as primary infertility was often concluded as a female factor and secondary infertility as a malefactor. Studies that surveyed violence among fertile and infertile women reported a high occurrence of domestic violence in relationships facing fertility challenges (Dhont et al., 2011a).

Intimate Partner Violence

Children were described as a source of peace and stability (Bornstein et al., 2020) in a marriage/couple, and without them, there may be no peace or love (Dhont, 2011; Mabasa, 2005; Runganga et al., 2001). They were thought of as buffers and facilitators of better communication between the couple (Mabasa, 2005). Many studies reported physical, emotional and verbal abuse between partners, with women being the primary victims (Bakare & Gentz, 2020; Dhont et al., 2011a; Mogobe, 2005; Moyo, 2013). In the study by Dhont, et al. (2011a), a few men reported experiencing verbal abuse from their partners in the form of accusations of being infertile. However, it was noted that upon establishing the male infertility factor, violence towards the woman almost immediately stopped (Dhont, 2011).

Family Effects

Family hostility

Abuse from family members towards people with infertility was a significant finding in many of the studies. This was almost exclusively being directed towards women who are in an infertile relationship/marriage (Aseffa, 2011; Dhont, 2011; Dhont et al., 2011a; Dyer et al., 2002; Hollos & Larsen, 2008; Mabasa, 2005; Mogobe, 2005; Runganga et al., 2001). Verbal abuse was the most experienced form of abuse, and in-laws (specifically mothers-in-law and sisters-in-law) were almost exclusively mentioned as perpetrators (Dhont, 2011; Dhont et al., 2011a; Hollos & Larsen, 2008; Mabasa, 2005; Mogobe, 2005). Emotional abuse came in the form of the blame for not being able to continue family lines, as well as accusations of consuming without being productive as one participant reported a comment from relatives, "eating eggs and dressing well offer no substitute for a child" (Runganga et al., 2001) or "our son is pumping a tyre that does not get full" (Mabasa 2005) and "your stomach only carries your faeces" (Aseffa, 2011). The women's own families were noted often to be more supportive and assist in seeking help.

Men were not reported to face abusive actions; instead, they faced pressure from the family to have children as soon as possible (Bornstein et al., 2020; Dyer et al., 2004).

Community Effects

Social Status and Respect

Biological parenthood acted as a form of elevation of one’s status in the community and proved that they could carry out their gendered roles (Dyer et al., 2004; Mabasa, 2005). One could not attain “actual”

adulthood if they were not able to have children (Parrott, 2014), as infertility prevents the normative transition into adulthood through having a child (Bornstein et al., 2020). As observed by a participant's contribution, "Without a child one is not a real man, he is like a boy (Runganga et al., 2001). Women or men would always be referred to by their first name instead of by being a father or mother of someone for the rest of their lives (Bornstein et al., 2020; Moyo, 2013; Runganga et al., 2001). This prevented them from attaining specified levels of respect in the community and was also a form of disrespect. The use of derogatory words/names and continuous ridicule was commonly reported (Aseffa, 2011; Dhont et al., 2011a; Dyer et al., 2002; Hollos & Larsen, 2008; Moyo, 2013; Parrott, 2014). The fear of being isolated led to those with infertility enduring emotional and verbal abuse from community members(Runganga et al., 2001).

Stigma and Social Isolation

The stigmatisation of infertile individuals in the community was presented in several studies (Dyer et al., 2002). Participation in some community activities such as birth and funeral had relations to being fertile, and those with infertility challenges were automatically alienated (Dhont et al., 2011a). Women were excluded from being a part of ceremonies like those related to giving birth as they had no experience of childbirth and therefore had nothing to contribute in such occasions (Dhont et al., 2011a; Gerrits, 1997; Mabasa, 2005; Mogobe, 2005; Runganga et al., 2001). In the study by Mogobe (2005), women reported that participating in social events increased their emotional pain as the reality of their situation was always lingering in most conversations. This was seen to cause internalised stigma through self-exclusion to avoid the feeling of otherness (Bornstein et al., 2020). Although women with either type of infertility were faced with stigma, those with at least one child endured a milder version of it, as observed in Hollos and Larsen (2008). Fertile women were also reported to have a sense of superiority towards infertile women since they had fulfilled the "sole" duty of womanhood. In Dhont et al. (2011a), stigma within the community was also related to accusations of witchcraft directed towards women with infertility.

An interesting finding on community stigma was reported by Dhont et al. (2011a) and Bakare and Gentz (2020) on how being infertile was more stigmatised than having HIV/AIDS due to the high premium placed on having children. Stigmatisation was also reported in Bakare and Gentz (2020) to occur at the level of healthcare services. Bornstein et al. (2020) reported on stigmatisation and isolation at workplaces experienced by people with infertility. They were discriminated against from a leadership position in public places because young people would not respect them and agree to work under them.

Social Security

Having children was presented as a form of social security in several studies. This did not only mean that one had people who could partake in family production but also take care of them during old age (Dhont et al., 2011a; Mogobe, 2005) and carry out proper burial rituals upon their death (Aseffa, 2011; Dhont et al., 2011a). Expressions of fear "to reach old age with no child to help us" were noted among the majority of the women (Aseffa, 2011; Dhont, 2011). Women who could not have children lost the right to utilise land that often belonged to their husband's and therefore were economically disadvantaged (Dhont et al., 2011a).

Available Support Services

Only one study in this review documented the availability of a formal mechanism of support that is not predominantly medical towards women affected by infertility. Women in the study by Bakare and Gentz (2020) were provided with help through the Namibia Women's Health Network (NWHN) and the Legal Assistance Centre (LAC). Women reported receiving both material support as well as emotional support through counselling. The counselling was described to lessen some of the emotional effects. Support groups created through this organisation acted as a safe space for women who had undergone sterilisation to find support from others. Support services for infertile individuals are also available through non-governmental organisations (NGOs) such as the Waiting Wombs Trust, Kenya (Waiting Wombs Trust, 2019) and Infertility Awareness Association of South Africa (IFAASA) (IFAASA, 2020). A range of services such as awareness and demystifying misconceptions of infertility, initiating and facilitating group and couple therapies, providing or subsidising medical consultation and advocating for the inclusion of fertility medical services within the general medical packages are offered.

Although the study by Odek et al. (2014) mentioned that 6% of the participants sought help from Self Help Groups, it was not discussed if these were formal groups nor how they functioned. Informal support came from partners, close family members, relatives, friends and religious relations (Aseffa, 2011; Mogobe, 2005; Odek et al., 2014; Pedro, 2015). This was, however, practised with great caution as disclosing the diagnosis of infertility with others could subject them to stigmatisation and hence, they portray it as a choice. Pedro and Faroa (2017) document the study participants' concerns over the healthcare workers' lack of attention to their psychological and emotional needs. One participant reported that "The other sisters are very formal, very strict,

and they do not take an interest in how you are doing emotionally. What is it to ask, "How are you coping with this?"

Coping Mechanisms

Several studies documented different ways in which men and women coped with the effects of their infertility on their daily lives. Religion was mentioned as a frequent resort towards coping with the effects of infertility(Dhont et al., 2011a; Mogobe, 2005; Odek et al., 2014; Parrott, 2014) . Some looked for a deeper meaning in life, while others hoped for a solution. Adoption of children of close relatives' children was also used to fulfil the desire to have a child by some infertile couples (Aseffa, 2011; Gerrits, 1997; Mabasa, 2005; Mogobe, 2005; Runganga et al., 2001). However, adoption was not a favoured way of coping with one's infertility as it did not represent true "parenthood" and always paused a threat of the children returning to their original parents. Because of this, women in the study by Aseffa (2011) preferred to adopt orphans. There was, however, a lack of acceptance and knowledge of legal processes of adoption (Aseffa, 2011; Mogobe, 2005). A finding was by Mabasa (2005) where women were so frustrated by being ridiculed in the community that some resorted to stealing children. Other coping mechanisms involved self-isolation or escapism by avoiding social gatherings that could lead to a discussion around children and create further emotional and psychological turmoil (Aseffa, 2011; Parrott, 2014; Pedro, 2015). This was accompanied by refraining from sharing the reality of one's infertility status, termed as "secrecy" in the study by Dyer et al. (2002) and Aseffa (2011). Preoccupying oneself with work was documented as another form of coping (Aseffa, 2011; Parrott, 2014) while resorting to alcohol and drugs was documented in Mabasa's (2005) study.

V. Discussions

Infertility is often accompanied by emotional tensions and existential crises for the affected individual. As commonly reported in this analysis, the range of emotional tension includes, but is not limited to anxiety, depression, anger, frustration, shame and feelings of guilt (Aseffa, 2011; Bakare & Gentz, 2020; Dhont, 2011; Dyer et al., 2002; Mogobe, 2005; Parrott, 2014; Runganga et al., 2001). The experiences correlate to findings among people experiencing infertility in other LIC like the Gambia (Dierickx et al., 2018) and Iran (Hasanpoor-Azghdy et al., 2014) as well as HIC like the United States of America (USA) (Cousineau & Domar, 2007). The emotional tensions contribute to as well as are caused by an existential crisis that is characterised by a loss of purpose in life, feelings of worthlessness and lacking value, low self-esteem and lack of sense of belonging (Aseffa, 2011; Dhont, 2011; Dyer et al., 2002; Mogobe, 2005; Runganga et al., 2001) as reported by other researchers (Akpor et al., 2016; Anokye et al., 2017). In most societies presented in the studies, people/individuals do not feel fully accomplished unless they have children. It may lead to long-term mental health problems such as depression or suicide, as reported by a study in Nigeria (Nieuwenhuis et al., 2009) since participants tend to feel no value for existence. Alcoholism and drug abuse were also reported as a source of escapism from reality and observed by a study in Northern Ghana (Tabong & Adongo, 2013). This is likely to escalate the occurrence of domestic violence and expose the individual to risky sexual behaviours.

Domestic violence presenting in the forms of physical, emotional, and verbal is almost reported unanimously as an effect of infertility in Ghana (Dierickx et al., 2018; Tabong & Adongo, 2013). Women are noted to suffer more from forms of abuse than men. Infertility frequently leads to divorce and polygamy (Dimka & Dein, 2013; Fledderjohann, 2012). Women are at risk of being abandoned by their husbands/partners or find themselves in a polygamous relationship more frequently than men (Anokye et al., 2017). This could be attributed to the patriarchal nature of most SSA communities. Although infertility treatment was not a central focus, several papers reviewed discussed the dynamics between modern and traditional treatment choices among those affected. Traditional healers appeared as the principal primary source for treatment-seeking among couples, with women being the main clients (either by choice or default) before seeking help in hospitals. A study by Dyer (2008) observed similar findings. Just as presented in the results, women are almost always initially thought to be the cause of the problem in traditional and modern health care settings.

Men were often more reluctant or were brought onboard the treatment journey after a while, and this may be a result of more focus directed towards the women and neglecting/side-lining men's sexual health needs (Baker et al., 2014). With the lack of proper and specialized support, women and men highly depended on informal support from family, friends, and religious relations. Although, for the most part, immediate family members, specifically the in-laws, contributed to the burden of the already felt dismay of infertility, they were mentioned by some participants as a source of support (Aseffa, 2011; Mogobe, 2005). This, however, did present with increased vulnerability to stigma and increased pressure to conceive. Family and general community support are vital as an individual is part of a larger society; therefore, the family and community need to be well informed on infertility. This will assist them in providing better support as a lack of support from a partner or family may worsen the effects of infertility on an individual and the treatment process (Read et al., 2014).

VI. Conclusion

The findings in this study have highlighted significant personal-psychological suffering and enormous social consequences experienced by those affected by infertility. The inability to have children results in a loss of sense of belonging and a question for one's existence. Relationships both between the couple and with their immediate family are negatively affected in the presence of infertility concerns. The nature of many societies in SSA favouring higher fertility results in forms of stigmatisation and marginalisation towards those with infertility problems. Women face more detrimental effects due to the social and cultural belief systems that reinforce these negative consequences. This is also mainly due to the gendered roles amplified in these studies regarding a woman's purpose in life is that or procreation. Social and cultural implications are also infiltrated within the quest of seeking treatment with an existing imbalance between men and women. Even though there is a slight improvement in the availability of options for infertility treatment in SSA, the holistic approach is not fully implemented. The lack of psychological and emotional support expressed by some participants in these studies can be attributed to the lack of patient-centred care delivery and inadequate knowledge among healthcare workers (HCWs) about infertility.

VII. Recommendations

Based on the study findings and conclusion, the study made recommendations for improving health care delivery. The unavailability of psychosocial support for those experiencing infertility is not in line with the idea of a patient-centred holistic approach to managing diseases. HCWs should be well equipped with the knowledge of infertility and how to deliver patient-centred care towards individuals affected by infertility. A multidisciplinary collaboration involving counselling services should be made available. HCWs can also facilitate the creation of support groups. A final important recommendation is integrating infertility prevention, treatment and support services within other sexual and reproductive health programs. The wide availability of reproductive health programs such as family planning can incorporate infertility advocacy and counselling services rather than creating separate programs from scratch. Strengthening other reproductive services should be considered. It will enable timely management of STIs and sepsis resulting from unsafe abortion or postpartum that are risk factors for infertility. Policies on abortion should also be reviewed to help reduce the burden of unsafe abortions, especially among teenagers and young adults. The lack of knowledge on legal adoption policies among participants' calls for action as this will provide couples willing to take up the option with more support to do so.

In summary, infertility exposes an individual to negative experiences in their social context. Navigating through these experiences needs adequate support that can be achieved through family, communities, healthcare system, and appropriate health policies around infertility issues. It is essential to attend to each of these to ensure an integrated approach that will benefit the individual.

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