

Background Issues in Nigeria Society Modify the Causes of Infertility

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Abstract: Globally, it is estimated that million couples experience fertility problems. For couples and clinicians, a diagnosis of infertility signals the start of investigations and possible treatment. Agreement about the criteria used to make this diagnosis is also crucial to evaluating the effectiveness of alternative interventions for the condition. However, accurate knowledge about the prevalence of infertility, awareness of secular trends and geographical differences are essential for providers of reproductive health care as well as policy-makers. Critical to establishing prevalence is a clear, unambiguous definition of the condition and an efficient instrument for making a diagnosis.

Keywords: Background Issues, Nigeria Society, Modify, Causes of Infertility

1. Background Issues to Infertility

1.1 Introduction

The Oxford English Dictionary defines 'infertile' as 'not able to have babies or produce young', which implies a state of sterility rather than 'difficulty in conceiving'—which represents the view of many clinicians. Demographers, however, define infertility as the absence of a live birth in a sexually active non-contraception woman, and this approach is more in line with the public perception, as well as the dictionary definition, as couples seek live birth rather than conception²⁰.

Reproduction and continuing the lineage are among the most innate and important instincts of all living beings. For both partners, infertility is a complex and situational crisis that is usually psychologically threatening, emotionally stressful, financially challenging, and physically painful most of the times due to diagnostic-curative operations undergone. The condition impacts 10–15% of couples at their reproductive age⁹. Fertility is a vital function of adult development. If this need is unmet, as seen among infertile couples, there is a negative impact on their future plans, self-image, self-respect, marriage life, and sexual life. It is also feasible to see loss of physical and sexual privacy among such couples³⁴. Infertility is a source of distress for couples as societal norms and perceived religious dictums may equate infertility with failure on a personal, interpersonal, emotional or social level. Women bear the brunt of these societal perceptions in most of the cases. Psychologically, the infertile woman exhibits significantly higher psychopathology in the form of tension, hostility, anxiety, depression, self-blame and suicidal ideation. In Mozambique, infertile women are excluded from certain social activities and traditional ceremonies¹.

Social stigma regarding infertility is especially common across South Asia. As in Andhra Pradesh, India 70% of women experiencing infertility reported being punished with physical violence for their failure¹. Women are verbally or physically abused in their own homes, deprived of their

inheritance, sent back to their parents, ostracized, looked down upon by society, or even have their marriage dissolved or terminated if they are unable to conceive.

Nigeria has high rates of primary and secondary infertility⁷. The results of the Demographic and Health Survey of Nigeria (NDHS, 2008) indicate that approximately 4% of women aged 30 years and above have never given birth to a child. Nigerian gynaecologists frequently report that infertility cases constitute between 50 and 70% of their consultations in tertiary health institutions²⁶.

1.2 Concept of Infertility

An inability of those of reproductive age (15-49 years) to become or remain pregnant within five years of exposure to pregnancy³⁵. An inability to become pregnant with a live birth, within five years of exposure based upon a consistent union status, lack of contraceptive use, non-lactating and maintaining a desire for a child²³. "Demographers tend to define infertility as childlessness in a population of women of reproductive age," whereas "the epidemiological definition refers to "trying for" or "time to" a pregnancy, generally in a population of women exposed to" a probability of conception¹². Currently, female fertility normally peaks at age 24 and diminishes after 30 years, with pregnancy occurring rarely after age 50. A female is most fertile within 24 hours of ovulation. While, male fertility peaks usually at age 25, and declines after age 40¹⁷. The time needed to pass (during which the couple tries to conceive) for that couple to be diagnosed with infertility differs between different jurisdictions. A couple that tries unsuccessfully to have a child after a certain period of time (often a short period, but definitions vary) is sometimes said to be sub fertile, meaning less fertile than a typical couple. Both infertility and sub fertility are defined as the inability to conceive after a certain period of time (the length of which vary), so often the two terms overlap.

In humans, infertility is the inability to become pregnant or impregnated or carry a pregnancy to full term. There are many causes of infertility, including some that medical intervention can treat.³⁶, estimates from 1997 suggest that

worldwide about five percent of all heterosexual couples have an unresolved problem with infertility. Many more couples, however, experience involuntary childlessness for at least one year: estimates range from 12% to 28%, 20-30% of infertility cases are due to male infertility, 20-35% are due to female infertility, and 25-40% are due to combined problems in both partners). In 10-20% of cases, no cause is found²³. The most common cause of female infertility is ovulation problems which generally manifest themselves by sparse or absent menstrual periods³⁶. Male infertility is most commonly due to deficiencies in the semen, and semen quality is used as a surrogate measure of male fecundity³⁶.

2. Types of Infertility

Primary Infertility: Primary infertility is defined as the absence of a live birth for women who desire a child and have been in a union for at least 12 months, during which they have not used any contraceptives³⁵. The World Health Organisation also adds that 'women whose pregnancy spontaneously miscarries, or whose pregnancy results in a still born child, without ever having had a live birth would present with primarily infertility'²¹. When a woman is unable to ever bear a child, either due to the inability to become pregnant or the inability to carry a pregnancy to a live birth she would be classified as having primary infertility.

Secondary Infertility: Secondary infertility is defined as the absence of a live birth for women who desire a child and have been in a union for at least 12 months since their last live birth, during which they did not use any contraceptives²¹. Thus the distinguishing feature is whether or not the couple have ever had a pregnancy which led to a live birth. When a woman is unable to bear a child, either due to the inability to become pregnant or the inability to carry a pregnancy to a live birth following either a previous pregnancy or a previous ability to carry a pregnancy to a live birth, she would be classified as having secondary infertility.

Prevalence of Infertility in Nigeria

Available data indicate that at least 50 million couples worldwide experience infertility. Importantly, studies estimating the global prevalence of infertility employ different methodologies, including different operational definitions for infertility, producing inconsistent results. Nevertheless, research has shown consistently that secondary infertility, which refers to women who have had at least one pregnancy and live birth previously, is more common than primary fertility, which refers to women without a biological child¹⁴.

According to a systematic analysis of national health surveys, in 2010, approximately 10.5% of women around the world experienced secondary infertility, and roughly 2% experienced primary infertility. The prevalence of secondary infertility, in particular, varies widely by region and country, ranging from less than 6% to greater than 16% of women. The majority of researchers agree that infectious disease, which can lead to fallopian tube blockage, contributes largely to variation among populations and changes over time. Since infertility risk tends to increase with age,

differences and changes in the age at childbearing likely play a role. Relatively little is known about the specific risk factors for and prevalence of male infertility around the world¹⁴.

The prevalence of infertility in Sub-Saharan Africa ranges from 20% to 40%. Although the Africa socio-cultural setting has before now focused on the female, fertility problems are shared by both male and female sexes. Male factor is responsible for 40–50% of all infertility in Nigeria although it varies from one region to another, and the causes also vary from place to place. A study in the mid-western Nigeria in 2002 showed that about 50% of the 780 couples evaluated were observed to have varied causes of infertility. In the southwest, male factor was reported to be responsible for 42.4% infertility cases, while in Maiduguri, North-Eastern Nigeria, infertility is the reason for about 40% of all gynaecological consultations¹⁶. In Kano, 40.8% prevalence was reported 46% in Ile-Ife and 55–93% was observed in Enugu Eastern Nigeria for male factor infertility⁵.

Despite the high prevalence of infertility in Africa and Nigeria, in particular, no significant efforts have been made in tackling the problem. The impact of male factor infertility is likely to increase if adequate measures are not taken. In the past, it was even assumed that infertility in Africa did not warrant specific intervention since many African countries have high fertility rate. There were reports that infertility was on the decline in Nigeria²⁸. Data from World Fertility Survey and Demographic and Health Survey showed that levels of infertility appeared to be either declining in Cameroon, Nigeria, and Sudan or remaining stable in Ghana, Kenya and Senegal. The report concluded that infertility has indeed declined among all age groups younger than 40 years by 7.3–6.0 in Cameroon and from 5.6 to 4.2 in Nigeria²⁸. The need for conceptual rethink of infertility in Africa was advocated at the international conference on population and Development in Egypt. Evidence of adverse consequences of infertility on reproductive health is increasingly emerging¹⁹. Most of the intervention by government and agencies are directed at communicable diseases, and tangible effort is not being made to address the root causes of male factor infertility. The government and developmental partners are mainly concerned with population control and growth. There is urgent need to focus on preventing infertility and assisting individuals and couples who are already affected by infertility. Management of infertility is not within the scope of many public health policies in Sub-Saharan Africa¹⁹.

Background Causes of Infertility

Biological causes are those causes related to our bodies³⁵

Biological Causes of Male Infertility: These may include - Abnormal sperm production or function, problems with the delivery of sperm, over exposure to certain environmental factors and damage related to cancer and its treatment.

Biological Causes of Female Infertility

These include - Ovulation disorders, uterine or cervical abnormalities, fallopian tube damage or blockage,

endometriosis, primary ovarian insufficiency, pelvic adhesions and cancer and its treatment. Infertility can also be caused by other factors aside the core biological causes, these factors may indirectly affect the biological factors (direct factors). These factors could be referred to as “the background causes of infertility”. On these bases the following background causes of infertility issues were identified.

Psychological Factors as One Reason of Infertility

It was detected that causes of infertility are widely ranged for men and women. The causal factors of infertility are not limited with medical factors but extend to psychological factors too²⁷. Emotional drivers of infertility for women can be listed as tubal spasm, anovulation, rapidly throwing seminal sperms, vaginismus, unintentionally avoiding sexual intercourse while ovulating. Although most women seem to dearly want to get pregnant and express their desire verbally, deep down they may hide negative views and fear towards pregnancy. These fears may originate from pregnancy, delivery, or motherhood. Among some of the potential underlying causes with psychogenic roots are also fears of having a bad body shape due to pregnancy, fear of losing her life or the baby during delivery, or fear of failing to be a good mother²⁷. Among men, impotence in erection and ejaculation are root causes of psychological infertility. Besides, as is the case for women, men can also avoid coitus unintentionally. For a man, childlessness is associated with failure to impregnate a woman (weak functioning of manhood), psychological void (unfulfilled paternal instinct), loneliness (in old age), failure to continue the lineage, unmet social role (father, father-in-law), and diminished social security¹⁸.

Stress

For infertile couples, stress sources may originate from personal, societal, and marital life. It was reported that single or collective presence of these factors increased the stress level during treatment process more³. For the couples defining their infertility experience as “the most distressing life event,” overcoming their current condition can only be possible by coping with the stress and adapt into the current situation. In stress management, personal capacity, past experiences, and support from immediate social circle are very critical²⁹. If failure to reproduce were perceived as if it were a crime and if it forced the individual to feel like a loser in community, infertile couples would then choose to be isolated from their close circle. As spouses become more discreet toward one another, their marriage life may also be adversely altered. Another explanation is the financial cost of treatment process. Since it is a long, exhausting, and also costly stage of which treatment process is uncertain, partners are likely to undergo an emotionally difficult and tense experience³⁷.

Socioeconomic Causes of Infertility

It is a disease that is not characterized by mortality but rather by the morbidity it inflicts on the individual and the couple. This morbidity includes social, economic, relationship and psychological aspects but is not confined to these. Women especially may be caught in a spiral of attempts to achieve their one social and evolutionary need namely to have a child. A number of international decisions have placed

infertility care in the context of reproductive health as a health priority. For many affected couples improvement or restoration of infertility-related reproductive health requires Assisted Reproductive Technology (ART). Although according to latest reports more than 1.6 million ART cycles were undertaken in 2008⁸. Children are a reliable source of manpower in many rural and developing areas such as Nigeria⁶ and provide economic security in old age; infertility often leads to instability in a marriage like polygamy and the possibility of divorce or abandonment with consequent loss of financial security. Certain customary laws and cultural traditions lead to negative attitudes to infertile women and may potentiate the scourge of gender inequality.

Psychosocial Causes of Infertility

There is an increasing trend by women, especially those with a formal education to delay planned child bearing until later in their reproductive years.²⁵ Also noted that the frequency of planned abortions was significantly higher among the infertile group in their study. The combination of these factors might be associated with lower fecundity.

Women in the infertile group were also more likely to be employed compared with those in the fertile group. A similar trend was observed in Ile-Ife, South West Nigeria. Effective fertility treatments are often expensive, with a moderate to low probability of success. A majority of the respondents in the infertility group reported having suffered one form of abuse or the other as a result of their infertility. The commonest sources of abuse were from neighbours, spouse, or spouse's relatives. In fact, not having spousal support was observed to independently predict psychological distress among infertile women in Ile-Ife, Nigeria³¹. A lack of support leaves women with infertility vulnerable to a range of stressful events which may range from domestic conflict to political violence. They also suffer personal grief, frustration, social stigma, ostracism, and economic deprivation. Childlessness which should be a private matter becomes an issue for open enquiry from relatives, friends, and neighbours. The stress placed on the infertile woman can be intense and impinge on her psychological and social well being.

Cultural and Religious Beliefs in Infertility

Religion and culture appear to influence the beliefs of women on the aetiology of their infertility despite their educational attainment. In Nigeria, beliefs in supernatural causes of infertility such as witchcraft or the belief that the infertile woman has taken a vow in her earlier life not to bear children are widespread.¹¹ Noted that in periods of crises, Western religious beliefs may give way to traditional beliefs. Noted that infertile Kuwaiti women attributed their infertility to evil spirits, witchcraft, and God's retribution. Religious obligation forbids people to have children through artificial process. According to¹⁵a Christian leader said “child bearing is the work of God and it is not proper for man to take up this responsibility”. Quoting a verse from the Bible, he said, “children are the heritage of God and the fruit of the womb is the gain”. This was corroborated by the Islamic leader who said “it is a sin for man to compete with God in the business of creation. God has not given man that responsibility”. While most persons said that their religions will not allow them to use ART, a considerable proportion

felt comfortable using it. Further stating that some cultural issues frequently mentioned include legitimacy of children born through ART, religious obligation, patriarchy, polygamy and value of children.

Legitimacy of a child is paramount to marriage stability in Yoruba culture. As a result, every family wants to proof that a child is their direct offspring. So, it becomes abominable for a family to go out of wedlock to have children. It was argued that this can lead to the problem of identity in the lineage. Believing that a child born out of wedlock may not have similar behaviour pattern like other members of the lineage. It was also noted that patriarchy is a major cultural factor in infertility issues when making decision about whether or not to use ARTs. Adding that if nothing is wrong with a man spiritually, the wife should not be playing his role. According to him, —"it should not be heard that women should play men's role. When this happens, the man's family should respond to rescue their son".

¹⁵There are three reasons why women may not be able to bear children. First, it is believed that she may be suffering from the spiritual attack of the enemy either from her family or that of her husband's. Secondly, that a woman may suffer infertility if she acts against a taboo of her husband's family or that of her family or if her parents had done something wrong in the past or if they curse her. Lastly, it was a common opinion that a woman may not be able to bear children if she has committed abortion before she got married.

Modernization: Education, Job seeking and late Marriage

²Fertility is affected by socio-cultural changes. In some societies, a decline in fertility has been related to a decline in polygamy. In others there is a connection between lower fertility and the raising of the age at marriage. Current ways of thinking and attitudes regarding fertility are a direct result of modernization.

One of the most probable reasons for this is the increase in the age at marriage for both male and female. Recent studies show that the perceived ideal average age of marriage is 25 – 27 years for males and 21- 24 years for females. In the past, these ages for getting married were considered to be "very old" for both males and females. The ideal age and time for getting married for both males and females appears to be almost immediately upon graduation from university for females and around 2 to 3 years after graduation for males. Modernization has played a major role in changing the attitudes regarding marriage and the age at marriage². Fertility is affected by many different cultural, socioeconomic, and environmental factors i.e, fertility is influenced by society type, such as urban and non-urban society, education and occupation, especially for women.

Educated and employed women are more likely to use contraception than those who have little education and who are not employed². The changing attitudes regarding the age at marriage are related to education for both genders but especially for females. Jobs have also become an important aspect of women's lives. As stated by Shah, female illiteracy has declined and the proportion of females with a degree in

higher education and involved in the labour force has increased. Another factor affecting age at marriage is that both males and females are less financially dependent on their families and extended families compared with the past. For this reason, education and work have become more important for females. Female awareness and dependency on herself are major changes in the family structure in Nigerian society and this has led to an increase in the age at marriage. For a man, dependency on himself and establishing himself financially is important before marriage and this can usually only be completed after graduation from university. These changes in the family structure have thus affected the fertility rate. It has been shown that there is an inverse relationship between a household's socioeconomic status and its fertility level.

Factors in Nigerian Society that can modify these Background Issues in Infertility

Psychological Approaches toward Infertility

Psychological counselling for infertility relates to raising the awareness of individual and/or couple by spreading information and skills during diagnosis, treatment, and post-treatment stages of infertility procedure; counselling is offered by a professional specialized in the field of psychology. Patients are assisted in their decisions on treatment and can thus develop coping strategies against the devastating emotions surfaced emerging because of infertility⁴. Studies in relevant literature underlined that until the 1980s, infertility was categorized as a psychosomatic case that reflected a woman's ambivalence emotions to motherhood or unsolved conflicts with their own mothers.

Hence, treatment was generically administered by psychoanalytic-oriented psychiatrists¹⁰, argued that mood changes were not the cause but rather the result of infertility. Therefore, he founded Resolve the National Infertility Association (RESOLVE) to provide emotional support for infertile individuals residing in the United States of America (USA) and climb public awareness by offering courses on infertility⁴. An increasing number of literature studies started to acknowledge psychological effects of infertility and highlighted the importance of supportive counseling interventions for those undergoing infertility treatments.

Psychological counsellors for infertility can offer services by consulting to theoretical approaches such as psychodynamic, individual-cantered, cognitive behaviourist, or solution-focused interventions. Although the methods being employed are different from one another, all of the psychological counsellors on infertility adopt a common objective in taking care of emotional well-being of the couple and when need be they strive to boost their psychological integrity and resources²⁴.

Responsibilities of a psychological counsellor for infertility are:

- 1) Helping the couple uncover their ambivalent emotions toward being infertile
- 2) Helping the couple unravel their ambivalent emotions toward the projected assistive treatment methods to have a baby

- 3) Helping the couple cope with the complicated emotions surfacing after failed interventions
- 4) After nullifying the emotional limitations of the couple, helping them make a decision from a variety of options including the choice of ending the treatment
- 5) Helping the couple establish a more effective communication as partners on anything related to infertility
- 6) Helping the couple cope with ambiguity and uncontrollability phenomenon
- 7) Helping the couple have a clear idea on any related aspects of assisted reproductive techniques
- 8) Helping the couple cope with the new experience caused by pregnancy or trauma after losing the baby despite the treatment.
- 9) Referring mentally disordered cases to psychiatric treatment

As a reflection of the latest multidisciplinary medical approaches, there has been a consensus among medical community that psychological counselling should be a complementary step for the biological treatment protocol of infertile couples³²

In psychological counselling protocol for infertility, there is a wide range of intervention types catered for the different levels of help needed among different couples.

In psychological counselling for infertility, there is a myriad of counselling options such as informative and decision-making, supportive counselling, and therapeutic counselling. Informative and decision-making is the first stage of infertility counselling. This stage involves comprehensive explanations on the causes of infertility, suggested treatment options, potential expectations from the treatment, and the way treatment process could affect their everyday life³⁰. At the onset of psychological counselling protocol for infertility, it is suggested to openly communicate about ideas, expectations, doubts, and worries of the clients on psychological counseling so that objectives of each session could be specified. Indeed, for many couples, this session is generally the very first meeting that they have ever had with a psychiatrist for a lifetime.³³

To maintain a satisfactory session, some of the essentials are active listening, empathetic approach, adopting a respectful language toward the viewpoint of each client, identifying the meaning or importance of the problem for the client, and to make the targets achievable within the control of client. In these sessions, it is aimed to help the patients understand that most of their infertility reactions are normal and predictable, to discuss about the process toward obtaining desired solutions, to conceptualize or reinterpret the problems with solution offering methods¹⁸. Among the main objectives of infertility psychological counselling are providing some coping strategies to the individual and couples diagnosed with infertility.

Efforts to make ART Affordable

¹³Efforts to make ART affordable in developing countries have been undertaken by non-profit organizations such as the Walking Egg and the Low-Cost IVF Foundation. Methods to reduce cost of ART exist and must be pursued

wherever possible. Introduction of third party funding usually requires the imposition of some restrictions or regulations. Restrictions may apply as to who is given access to ART while regulations may apply regarding number of embryos transferred with the view of reducing the biggest risk of ART, and its resultant downstream costs, namely that of multiple pregnancies. Additional cost reducing strategies include less aggressive stimulation cycles with less monitoring, novel use of incubation techniques, earlier embryo transfers and effective use of cryopreservation.

There should be specific start and end points to treatment modalities with age-appropriate and cause appropriate interventions. Clinics may offer risk sharing, package pricing for multiple cycles or cross subsidization. Although it is assumed that lower cost of treatment will improve access, this is not always the case. Some studies have indicated that lower socioeconomic and certain ethnic groups may still be disadvantaged⁸. Care must also be taken that more affordable treatment does not lead to inappropriate perpetuation of ART in some.

Improving access to infertility care requires a two-faceted approach. Infertile couples must be able to access quality care at affordable cost, however this is attained. In addition, efforts to prevent infertility should be escalated – according to the WHO up to 45% of adult conditions develop during adolescence and this is the target group for education regarding preventative strategies.

Giving Women a Voice to make Decision about their Infertility Issue

Studies shows that some respondents felt that women should play more active role in decision making about child bearing because they are at the receiving end when things are not working well like the case of infertility¹⁵.

According to a woman, I don't think that it is good for men to feel that they have absolute decision making about what to do in case of infertility because women are always blamed for this condition and not men". This view was also shared by a couple who indicated that it should be a joint decision between husband and wife. According to the husband —I and my wife have been going to places together in search of solution to the problem. We both discuss it and I can understand how she feels about it. I don't need to hurt her further".

3. Conclusion

In conclusion, it can be stated that infertility is a life crisis that brings with itself a number of psychological problems. Taking preventive measures upon calculating the background causes that could affect treatment success is a critical issue to observe in providing healthcare services. During the infertility treatment process, to have some awareness on the psychological problems experienced by individuals not only helps in the adaptation of infertile individuals to infertility diagnosis and treatment procedure, but it could also lower the intensity of reactions against infertility. It is thus strongly suggested that analysis of infertile couples or individuals within the context of

psychological indicators and findings should be integral to an entire infertility treatment protocol.

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