Infertility Psychosocial Morbidity: A Concern for the Nurse Midwife in Nigeria.

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ABSTRACT

Infertility is a public problem in Sub-Saharan African and constitutes a crisis in affected Africa family. The prevalence of infertility in sub-Saharan Africa is higher, with 10–30% of couples affected in Nigeria. Women carry a much heavier burden and stress of infertility than their male counterpart. In Nigeria infertile males are protected due to the patriarchy society while the females bear the burden and are marginalised in the society. The psychological impact and psychosocial consequences have negative effect on physical, social, sexual and mental wellbeing with poor outcome of treatment. The Nurse Midwife has a key role to play in patient education and their understanding of the long-term treatment journey. They need to make themselves visible as educators, advocates and reliable supporters in every step of infertility management.

INTRODUCTION

The diagnosis of infertility could be psychologically traumatic to the woman's physical, social, emotional and sexual well-being. Researchers have attempted to have a unified definition of infertility but there was no agreed or consistent definition.[1, 2] Researchers relied on the definition by World Health Organisation. Infertility was defined by the World Health Organisation as a disease of the reproductive system defined by the failure to achieve a clinical pregnancy after 12 months or more of regular unprotected sexual intercourse.[3, 4] The reproductive age is between 14 and 49 years. In this situation, infertility is regarded as a disease since it affects the physical, social, spiritual, psychological and mental health of the individual.[5-9] Worldwide, it has been estimated that 48 million couples and 186 million people live with infertility.[10] Around 13–17% of couples experience infertility in sub- Saharan Africa [11]. There are two types of infertility; primary infertility and secondary infertility.[12-16] Primary infertility is inability to conceive within two years of exposure to sexual intercourse. While secondary infertility is the inability to conceive after previous pregnancy carried to term or miscarriage.

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Infertility is a public problem in Sub-Saharan African due to poor allocation of resources to the health sector by national governments and international donor agencies. It is the main reason for gynaecological consultation in Nigeria with a reported prevalence of 8.7% and 30.3% in rural community surveys.[17] Nigeria has a population of over 193 million people, a high population growth rate of 3.2% and a fertility rate of 5.8% in 2016.[18] In addition, it has been proposed by United Nation world population that the country population could reach 410 million by 2050.[18] This high population growth and fertility rate will overshadow the gravity of infertility as a problem in Nigeria. Infertility among Nigerians can be described as a silent sorrow or pains in which the male fertility status is protected by the patriarchy society even though they have accepted the source of the problem could be from them while the female bears the burden and are marginalised in the society. This supports the statement that infertile women carry a much heavier burden and stress than their male counterpart.[2] The negative feeling from infertility may lead to stress, depression, maladaptive behaviour from poor coping response and physical health symptoms. The World Health Organisation believes that although infertility is not considered as a disease, it can develop several emotional and social disorders with consequences. Infertility constitutes a crisis in affected Africa family.[19] The impact of infertility may range from low self-esteem, verbal abuse, sexual dysfunction, rejection, isolation, divorced, stigmatisation and depression.[20, 21]

INFERTILITY SITUATION IN NIGERIA

Researchers have shown that Nigeria has high fertility index and population that will hinder the achievement of environmental and socio-economic development of the Sustainable Development Goals (SDGs).[8] Nigeria had an estimated population of over 193 million and annual population growth rate of 3.2%.[18] This makes the country occupies the seventh position in world global population and it is projected by 2050 to become the fourth most populated country in the world.[22] Fertility is highly valued in Africa countries while infertility is considered a taboo. The birth of a child is joyous news, welcomed with celebration as it marks the beginning of womanhood. In 2015, total fertility rate was 5.5 births per woman but increased in 2016 to 5.8.[18] Studies have shown that fertility reduces with increasing woman's education, age and employment. Prevalence of infertility in sub-Saharan Africa is higher, with 10–30% of couples affected in Nigeria.[1]

The gravity of infertility has been poorly captured by demographic and epidemiological studies researches depend on the size of the clinical problems in health institutions which shows the intensity and testifies to the enormity of the problem in Nigeria. More specifically, there are programmes that seek to reduce the high rate of fertility in Nigeria but there is limited data on programmes that addresses the high rate of infertility.

Hospital-based prevalence of infertility reported in some parts of Nigeria are 15.7% from Sokoto (North west), 23.9% from Bauchi (North East), 4.0% from Ilorin (North central), 15.4% in Abakaliki (South east), 48.1% in Oshogbo (South west) and 34 per 1000 in Calabar (South South).[23] The prevalence is high in South west Nigeria due to the health seeking behaviour and rapid information technology communication development in the area. Available evidence also suggests that the country has high rates of primary and secondary which has contributed to disruption of personal life, social and family life. According to the high prevalence of secondary infertility in developing countries has been attributed to Sexually Transmitted Diseases (STDs), postabortion and puerperal sepsis.[23]

In Nigeria infertile males are protected due to the patriarchy society while the females bear the burden and are marginalised in the society. In southwestern Nigeria women infertility status is a personal secret because of the negative psychological and socio-cultural consequences such as divorce, domestic violence, isolation, stigmatisation, depression, abandonment and loss of inheritance.[2] Women desperately seek solution from orthodox medical practitioners, traditional healers and religious spiritual practitioners. The medical treatment of infertility is expensive in low resource country thereby creating additional burden to the family. Nigerian population policy had the prevention and treatment of infertility as one of its stated objectives but infertility treatment is not included in its National Health Insurance System. Due to the financial constraint many women sought for cheaper infertility treatment from traditional and religious spiritual healers. Women living with infertility experiences psychological distress, this will affect the way they view their infertility and the strategies used in coping with infertility.

PSYCHOLOGICAL IMPACT OF INFERTILITY

The stress related to infertility has been found to incorporate and affect many aspects of an individual's life. An anxious individual body produces a stress response. The stress response causes a number of physiological, psychological, and emotional changes in the body that enhance the body's ability to deal with a perceived threat. The degree of accompanying stress response and its physiological, psychological, and emotional changes are directly proportional to the degree of anxiety.[24] Some studies have shown that the stress level of infertility couples as associated with psychological distress level of their partner, and stress of both partners was associated with adverse InVitroFertilisation outcome.[25]

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Couples experience various losses as a result of their infertility status such as loss of the experience of pregnancy and birth, low self- esteem and self-worth, loss of marital stability, loss of opportunity to become a parent and grandparent, inability to contribute to future generation and loss of financial security.[26] Women may experience pregnancy loss early or late pregnancy. It can be referred to as miscarriage or spontaneous abortion followed by vaginal bleeding, cramping and pain. Several studies have shown that the incidence of recurrent pregnancy loss is higher among women living with infertility.[27, 28] The true incidence of recurrent pregnancy loss is unknown in Nigeria, about 10% - 15% of diagnosed pregnancy end in spontaneous abortion and the total pregnancy loss is estimated to be 30% - 50% of all conceptions.[29] Recurrent pregnancy loss results in grieving and psychological pain which can become complicated without intervention.

Oftentimes, women undergoing treatment for infertility experiences chronic stress which may disstabilise hormone production, suppress ovulation and abnormal spasm of the fallopian tube. Also, a study has shown that 50% of first trimester miscarriage occurs naturally due to chromosomal abnormality in the fetus which is inherited from the proposed parent.[30] There is the likelihood that the couples will experience prolonged sorrow which will affect subsequent treatment. Couples often look at themselves as incomplete and a failure in having biological children which will affect their self-esteem and self-worth.

Psychological distress is a state of emotional suffering characterised by appearances of mental disorders such as depression and anxiety.[31] Partners may become more anxious to conceive, ironically increasing sexual dysfunction and social isolation. After a period of waiting without result depression may occur. The woman will feel sad, powerless, uncertainty and hopeless about the future. This will lead to self-isolation, loneliness, sleepless nights, avoidance of baby showers, pregnant women and friends.

PSYCHOSOCIAL CONSEQUENCES OF INFERTILITY

The consequences of infertility are traumatic which will affect fertility treatment. Various psychological risk factors that can affect infertility are; reduction in social status of woman, infertility is a curse or punishment, stigmatisation in the family or community, accusation of witch craft, exclusion from community function, psychological and physical abuse, abandonment or divorce, sexual dissatisfaction, marital instability and high cost of treatment.[32-34]. The risk factors are discussed as follows;

Reduction in Social Status of Woman: Women living with infertility have the feeling and have experienced situations in which their role in the family and community are reduced due to their infertility status. Primary infertile women status will be grossly

affected until they are able to have a child. They may have the thought that they are lower in status due to their inability to become pregnant while women with secondary infertility may have the thought, they are incomplete functionally in terms of reproduction.[35] There may be an assumption that the woman was unfaithful to her husband and the only child belongs to another man. This is line with findings identified that secondary infertility could also implicate the woman as unfaithful because the assumption could be made that the first child was not fathered by her partner.[36] Women are disrespected in the family and community be addressing them by their first name to humiliate and hurt their feelings. They may be deprived of leadership position in the community and at work due to infertility.

Infertility is a Curse or Punishment: The Holy bible and Quran are full of words of encouragement for the individual living with infertility. God commanded man to be fruitful, multiply and fill the land. Infertility is not associated with God's punishment in the bible. According to the bible, Samuel 6:23 Michal the daughter of King Saul was the only woman who died barren because she scorned King David her husband for dancing before the ark of God. God gives children at the appointed time. All the children of infertile women are great and faithful men after God's heart. The women are faithful and trust the Lord when their prayers for the fruit of the womb weren't answered immediately the way they desired. Infertility is only a disease or illness inflicted on some people as a decree of Allah Almighty in the Quran.[37] Followers are encouraged to be contented with Allah's will in the case of one's fertility status. Traditionally, infertility is associated punishment from God for sins caused by devil.

Stigmatisation in the Family or Community: The stigmatisation of women who experienced primary infertility is often within the marriage, family and community. Stigmatisation may be in form of name calling and social exclusion. The disclosure of a woman's infertility status results in various negative reaction from family members, friends and community inhabitant. They will hurt her with derogatory names such as 'agan' meaning infertile woman in Yoruba language or barren.[38] In most situations it is the fertile women who use this derogatory name. Women are stigmatised by fellow women in the family and community with the public declaration of the fertility status in order to receive sympathiser instead of showing empathy. Infertile women in Egypt and Ekiti of Southwestern Nigeria, are treated as outcast after they die and their bodies are buried on the outskirts of the town with those of people experiencing mental ill-health.[39, 40, 41]

Exclusion from Community Function: Women will experience social exclusion from family and community functions with reduced decision-making power as the new wife

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takes over the social responsibility and contribute to the husband's family and lineage [42], [43]. In order to avoid low self-esteem and regret, women living with infertility exclude themselves from friends and families' children's parties, also avoid pregnant relatives and friends so they will not be accused of jealousy or evil if anything happen to their relatives or other people's children in the community.[44]

Psychological and Physical Abuse: Women who experience infertility are often psychologically and physically abused by their partner, in-laws and community members [6, 45, 46, 47]. They are vulnerable in terms of protection of human legal rights despite the 1993 United Nation's declaration on Elimination of Violence Against Women. This may be as a result gender difference, educational level and socioeconomic status. Gender inequality in Nigeria has made women victims of cultural norms and role expectations regarding fertility. The women have the belief they are not fulfilled without being a mother and they tends to endure abuse to achieve the purpose. The negative experience of infertility may influence the psychological and physical wellbeing of the individual which the care providers must understand to improve fertility. Researchers [47] have reported that infertile women who experience domestic violence were 31.2% to 35.9% in Nigeria and 33.6% in Turkey. Also, the prevalence of physical violence varied from 14% in Islamic Republic of Iran to 83% in Nigeria[47]. This shows that women in developing countries suffered from various abuses without intervention to prevent or reduce the rate of its occurrence. The abusive experiences of women may result in negative thoughts that will affect coping strategies and adaptation to the situation.

Abandonment or Divorce: Women were threatening with divorce especially if the woman has a child or divorced by their husband since they are expected to fulfil the cultural responsibility of child bearing.[42, 48, 49]. Initially, the couple stays together as one to find solution to the problem but once they identify the source of the infertility the husband most times remarry if the previous wife did not conceive to proof his fertility while the women are blamed for the infertility.[41] Polygamy is acceptable in all cultures in Nigeria especially if the couples are Muslim. The in-laws influence the husband by making bad comments about the wife living with infertility. Women may be frustrated, verbally abused, isolated, stigmatised and divorced. This is supported a study on infertility in Nigeria that revealed that 40% of women divorced because of infertility.[41] Reasons for divorce are domestic abuse, polygamy and accusation of witchcraft. Infertility encourages extramarital sex in marriages in which men participate in sexual relationship outside their marriage that can result in negative social consequences [50]. They are prone to contacting infectious diseases such as HIV/AIDS and sexually transmitted infection. A number of problems have resulted from such relationships such as sexually transmitted disease to include HIV/AIDs, divorce and psychological distress.[51]

Accusation of Witchcrafty: Historically, Nigerian belief that illness and diseases are caused by evil spirits. This may prevent or discourage women from seeking medical consultation hereby visit traditional or faith healers.[52, 53] The faith healers may take advantage of the situation to assault the women physically and sexually. The desperate women willing participate in spiritual deliverance from spirit husband responsible for the infertility and perform various sacrifices.[54] Nigeria is a country where supernatural beliefs play a major role in decision making. There is no law against witchcraft in Nigeria as a result community leader determines who should be banished.[55] Childless women are often accused and they suffer from abandonment, rejection, loss of inheritance and may be banished from the land [54]. If the husbands are supportive, women are afraid of been chase away by the in-laws and may resist pressure from the in-laws.

Sexual Dissatisfaction: This can affect marital relationship and woman's sense of femineity. Women due to cultural background in Nigeria are unable to discuss their sexual dissatisfaction with their husband especially if they are illiterate. Sex will be seen as a procedure that involves monitoring of calendar dates rather than an involuntary sexual reaction that should be enjoyed by the couple.[56, 57] Women may focus on the success of the sexual activity rather than enjoying it. This supports the statement that couples with infertility think about reproduction aspects of sex which makes them to report less complaints of sexual dysfunction to their clinicians.[58] A study in Nigeria reported that prevalence of sexual dysfunction was 63% and the sexual dysfunction includes disorder of desire (8.3%), disorder of arousal (5.4%), disorder of orgasm (63.6%) and painful coitus (22.7%).[59] This is alarming. Nigerian women are shy in discussing their sexual dissatisfaction with their partners due to the male dominance culture and women's upbringing. Clinicians need to consider and support women with sexual problems as an issue that can reduce sexual satisfaction.

Marital Instability: Despite consultation with different doctors and traditional healers, women could not understand why it is difficult for them to get pregnant because they were not informed of the cause of the problem may contribute to marital instability.[60] Childbearing is a blessing and essential for a stable marital relationship. Divorce, lack of affection and love, polygamy, extramarital affairs, lack of trust, poverty has been identified as factors contributing to marital instability.[61] Grandparents demand for grandchildren troubled the woman since she knows she has infertility problem that require treatment despite her desire for a child.

High Cost of Treatment: The cost of infertility treatment in developing countries is high and it was not captured in National Health Insurance coverage package especially in

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Nigeria [62]. Women are incapacitated and seek care from non-specialist to overcome the need for a child. Many procedures are not covered by National Health Insurance Scheme such as assisted reproductive technologies. Management of infertility is expensive and out of reach by the common citizens in Africa.[51] This will make women fall victims of exploitation by service providers. Women may seek further help by consulting the ancestors which they believe is in close contact with God identified that couple's failure to acquire specialised treatment can lead to feelings of helplessness and desperation when there is no insurance coverage or means to pay for the treatment.[63] This will result in noncompliance with standardised treatment regimen and investigation.

THE RELEVANCE TO NURSING PROFESSION IN NIGERIA

The Nurse Midwife play a key role in patient education and their understanding of the long-term treatment journey. The midwife conducts an interview to gather medical histories and physical assessment of the patient in order to provide individualised care. Also, provide pretreatment counselling in order to gain insights into various self-help practices of women as this will help in correcting misunderstandings in a non-judgmental attitude and monitoring of the women. Provide continuous education on the treatment process to prevent discontinuation of treatment. This includes information about medications schedule, clarify medication dosages and administration methods, explain the side effects of the medications, timing of treatment and the need to adjust their life to the fertility treatment. Recognising and addressing the symptoms of psychosocial morbidity, can help the individual to take proactive steps to relive its severity. Addressing psychosocial morbidity symptoms build a relationship of trust and strengthens communication between the woman and the midwife. The performance of psychosocial assessment at first contact and during treatment provide baseline information about the individual quality of life.

Couples can be taught grounding skills, relaxation skills, unhooking skills and restructuring skills within the treatment environment. The skills acquired empower the woman to have control over her emotional well-being hereby preventing psychological distress. Also, provide physical and online counselling in order help couples overcome stress of everyday challenges. Couples or individuals can access health care from home hereby eliminating distance barriers and increase accessibility to quality care from the comfort of their homes[64, 65]. The use of interactive technologies such as personal digital assistants, interactive televisions, interactive voice response systems, computer kiosks, and mobile communications have revolutionized how patients interact with healthcare providers shows that virtual reality technology allows patients to practice real life challenges, revisit a past event or help a person confront fears in a controlled.[65, 66] The

individual gradually gets used to the situations and there is a change in their negative perceptions and reactions to the situation.

Midwives give the patients consolation and comfort as they express their pains, disappointment, frustration and stress regarding infertility treatment during follow up care. They must display empathetic listening during communication, provide comforting words, inspire hope and resilience in patients. Nurses provide emotional support to patients, helping them navigate the challenges of illness and recovery in recognising the emotional aspects of healing.[67] The midwife act as the woman's advocate for financial support regarding their treatment options by connecting to non-governmental organization interested in infertility so that psychosocial morbidity is reduced. Nurses can help the women living with infertility to form a support group where they derive strength and support from each other. Regular supervision of couples by nurse midwife ensure they understand the expected outcome of group formation and identification of challenges in the group discussion. Also, refer severe condition to a mental health professional. Celebrate treatment success or offer comfort and alternatives in the case of setbacks. Guide policy makers in ensuring training of nurses, availability of support materials and support groups in the clinics.

CONCLUSION

The social and psychological complexities of infertility coupled with the long-lasting and devastating emotional and psychological impact of infertility on couples and individuals should not be overlooked by nurses.[68] Infertility has emerged as a source of stress which can progress to distress. The morbidity that comes with infertility is one of the primary sources of psychological distress, stigma, and relationship stress; it also usually requires complex, costly interventions.[69], [70] Nurses play a significant role in reduction of infertility psychosocial morbidity. Nurse midwives should make themselves visible as educators, advocates and reliable supporters in every step of infertility management.

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