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Research Article

HEALTH SEEKING BEHAVIOUR OF WOMEN WITH INFERTILITY IN SOKOTO STATE, NIGERIA

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Abstract

The purpose of the study is to explore the health seeking behaviour of women with infertility in Sokoto State Nigeria. Explorative descriptive design which is a qualitative approach was employed. Ethical clearance and administrative approval was received. A purposive sampling technique was used to recruit fourteen consented participants who were interviewed using semi structured interview guide. The study findings revealed that the women that sought for help to conceive were married, educated young elderly women. The women were able to identify infertility because they paid attention to their duration of marriage and unproductive sexual intercourse, years of last childbirth and repeated miscarriages. Regardless of the women's financial status and social support (advice, prayer, emotional financial) from significant individuals, the women were committed to seeking for medical help to conceive. The women believed that infertility is caused by biological and supernatural components. As a result, the women sought for help to conceive at both medical and faith-based outlets. The women did early and late medical seeking. They also patronised multiple health institutions starting with the private clinics for privacy. It is recommended that government and relevant agencies should assist in ensuring treatment is subsidised and empower women to improve access to fertility related treatment.

Keywords: Infertility, Behaviour, Childless Women, Health Seeking, Help Seeking.

INTRODUCTION

Infertility is a worldwide reproductive public health challenge, affecting 48.5million couples with 34million under 60years aged women childless due to prolonged maternal morbidity which is more common in the middle income world and graded the 5th severe worldwide disability (Dierickx *et al.,* 2019). Despite the devastating reproductive health challenges of infertility, it is still one of the ignored reproductive health challenge and low in the health priority list in the world especially in the low income world (Cui, 2010). Infertility is a reproductive system illness characterised by inability to attain a clinical pregnancy after 12months or more of consistent uninterrupted sexual intercourse. Infertility is the inability of childbearing age women (15-49years) at risk of achieving pregnancy to become pregnant after two or more years of productive trial (WHO, 2018).Collectively the above are the respective biomedical, epidemiological and demographic definitions of infertility indicating minimum waiting time before seeking for medical help to get pregnant. Medically, Primary and secondary infertility are basically the main types of infertility. Primary infertility occurs where there was no history of previous conception in a woman that fail to conceive or bear a child while secondary infertility is failure of a woman to become pregnant after previous ability to conceive or carrying a pregnancy to a live birth (Mascarenhas *et al.,* 2012). Globally, the prevalence of infertility among women is high with substantially low health seeking behaviour recorded. About 15% of couples within the childbearing age are affected by infertility with women accounting for about 9-10% prevalence globally (WHO, 2018). Basically, it is reported to be underestimated and there is no significant decrease for the past twenty (20) decades (Mascarenhas *et al.,* 2012).

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Worldwide, 72.4 million women are infertile with lifetime prevalence of 6.6% to 26.4% and 40.5 million seeking for infertility treatment with 32.6million (45%) not seeking for medical help to conceive in all the countries (WHO, 2018). Secondary infertility was found to be more prevalent among women within the age range of 20-44years while primary infertility is more in younger women less than 25years (WHO, 2018). In the high income nations, parenting is undeniably sought after (Chin, Howards, Kramer, Mertens, & Spencer, 2015). Prevalence of infertility among women in Britain is about 12.5% and more than half sought for medical help to conceive (Datta *et al.,* 2016). In Portugal, 7% of the women demanded for medical help to conceive out of which 71% were clinically diagnosed of infertility (Correia, Rodrigues, & Barros, 2014). In Canada, 3 in 4 couples with female partners aged 18-44years reported actively trying to get pregnant however, only 15% reported seeking help to become pregnant (Bushnik, Cook, Hughes, & Tough, 2012). Despite the significance placed on childbearing, the medical demand for infertility services is still an issue. The global medical help seeking for infertility is about 58% even in nations that provide generous access to medical care; an example is the level of access in Denmark is similar to that of Gambia (Boivin *et al.,* 2017).The issue of infertility revolved around secrecy and privacy in both the high and middle income society such that it becomes culturally improper to ask why a woman is not pregnant (Petitpierre, 2018). WHO (2018) reported that male factor contributes to about 50% infertility cases yet women are mostly afflicted with great consequences of the disease. Women from China, India, Nigeria, Ghana suffer both social and psychological trauma ranging from anxiety, stress, depression, social isolation, stigmatisation, marital problems, and being seen as sinners (Kussiwaah, 2016; Li *et al.,* 2017). This implies that the social and psychological consequences in turn adversely affect the health of the infertile women. In most Sub-Saharan African (SSA) cultures, marriage is normative for

childbearing and giving birth is a sign of a blessed marriage (Naab, 2014). However, there is a misconception that infertility is basically the fault of the woman posing a complex gender specific problem (Ola, 2014). Hence, childlessness in SSA signifies misfortune for the couple, frustration for families because emphasis is placed on continuity of lineage (Cui, 2010). The specific distress among women includes serious economic challenge, humiliation, ban from family and community tradition, divorce, depression, murder and suicide (Kussiwaah, 2016; Naab *et al.,* 2013; Petitpierre, 2018). The prevalence of secondary infertility was reported to be more than primary infertility (Naab *et al.,* 2013; Oladeji & OlaOlorun, 2018) and common among 25-49years old women (Cui, 2010). Most of the infertility cases in the middle income countries are due to infections (WHO., 2018). It is therefore, sad to note that little attention is given to the preventive measures of infertility.

In Nigeria, being an African nation, fertility is a vital issue and the situation is not different from those seen in other Sub-Saharan societies. The prevalence is high in some states with more than half (54.8%) of the women in Anambra afflicted with childlessness (Okafor, Joe-Ikechebelu, & Ikechebelu, 2017). Nationwide, offspring are treasured for social, cultural, religious and economic motives as such barrenness frequently leads to psychological, social, and economic burden, especially for women (Whitehouse & Hollos, 2014). It is evident that childbearing does not only have an important influence on the woman's social status in the family and society but her health as well. In Southern Nigeria, infertility is believed to be caused by predestined supernatural problems, problem of women, a threat to man's lineage and spiritual attack by witchcraft (Okafor *et al.,* 2017). The burden of childlessness is confined to the socio-cultural background as it affects the opinions of individuals towards medical help seeking. Health seeking behaviour is a complex process (activity) characterised by multifaceted factors like age, marital status, parity, literacy level of the individual, family's financial resources, religion, social support and individuals' perception of infertility (Slauson-Blevins *et al.,* 2013). This implies that despite the importance attached to fertility and the burden of childlessness, women seek for help from alternative medicine with only few accessing medical care. The burden of infertility on women and the complexities involved in treatment decision making makes it imperative for the researcher to explore the health seeking behaviour of women in Sokoto state using the theory of help seeking behaviour as an organising framework.

Statement of Problem

Children are highly valued in Nigeria; the Northern part not an exception and the suffering associated with infertility is overwhelming. Childless women are ill-treated by husbands and in-laws. As a result women go through many traumas both psychologically and socially such as anxiety, depression, stigmatisation, divorce (Lawali, 2015). In addition, high oxidative stress status was found among women with infertility in Sokoto (Panti *et al.,* 2018). It was observed that women's experience is devastating as lack of support from husband also predicted depression and anxiety for most Nigerian women. This is more evident in a predominately Muslim society where gender disadvantage poses threat to the women's health psychologically (Qadir, Khalid, & Medhin, 2015). The place of early identification and prompt treatment of the predisposing conditions to infertility cannot be over emphasised. In the Northern Nigeria, infertility health seeking is delayed as 40% of women with infertility seek for medical care after three years of not being able to conceive out of which 50.4% used traditional medication (Bukar *et al.,* 2012). This shows that delay in seeking care can be attributed to so many factors in the health decision process and the delay might also expose the women to other advance health consequences. More so, early health seeking and prompt treatment of the genital infections might reduce the prevalence of infertility in the State. Studies by researchers in the region and beyond have provided a lot of insight on the prevalence, common types, causes and consequences of infertility (Lawali, 2015; Panti et al; 2018). However, little is known about the health seeking behaviour of the women with infertility. This prompted the researchers to explore the health seeking behaviour of women with infertility in Sokoto state.

Purpose of the Study

The purpose of this study was to explore the health seeking behaviour of women with infertility in Sokoto State Nigeria. Specifically, the Objectives of the Study seek to;

1. Determine the life course factors of women with infertility
2. Explore the Symptoms Salienceamong women with infertility
3. Identify the enabling and predisposing factors leading to health-seeking behaviour among women with infertility

Research Questions

1. What is the life course factors influencing the health seeking behaviour among women with infertility in Sokoto?
2. What are the Symptoms Salienceinfluencing the health seeking behaviour among women with infertility in Sokoto?
3. What are the enabling and predisposing factors leading to health-seeking behaviour of women infertility in Sokoto?

Significance of the Study

The results from this study would provide the picture of the factors influencing the health seeking behaviour of women. This would give an understanding of the complex process involved in health seeking. The information may also help planners and agencies for maternal and reproductive healthcare to strategy how to assist the women seek the appropriate medical care. The information from the study would assist health practitioners appreciate the complexity in health decision making thereby informing them to treat each woman demanding medical services holistically and uniquely as individual. The findings would also sensitise and enlighten the women on the availability and accessibility of medical infertility services in the community and beyond.

METHODS

An exploratory descriptive design, which fits within a qualitative approach, was employed to explore the Health Seeking Behaviour of Women with infertility in Sokoto State. The qualitative design allows for discovering of meaning and revealing various realities; however, generalisation is not the main focus (Polit & Beck, 2010). The design further emphasised the need for rigor in choosing a research setting

with the high potential of providing rich data that will give an in-depth understanding of the phenomenon at hand (Polit & Beck, 2010). The design also allows for detailed investigation and understanding of the health seeking behaviour of women with infertility. Nigeria is located at the Western Coast of Africa. The country currently has 36 states which are subdivided into six Geopolitical Zones with Abuja as the Federal Capital. It is also operating a Democratic government using a federal system of administration (federal, state and local government) and has 3arms of government (the executives, legislative and judiciary). Sokoto state with the slogan; Seat of the Caliphate is located at the extreme North Western part of Nigerian between longitudes 4Â°8'E and 6Â°54'E and latitudes 12Â°'N and 13Â°58'N. Sokoto city is the capital of Sokoto State which was created by General Murtala Mohammed on 3rd February 1976. It is an urban town, approximately 25,973 square/kilometres in land mass with a population of 3,696,999 with an estimated population of 4,886,888 projected for 2015 (Commission, 2006). The inhabitants of the state are predominantly Muslim and of Hausa, Fulani. Other minority ethnic groups include the Zabarmawa and Tuareg who also speak Hausa as a common language (Commission, 2006).The state is bordered to the West by Benin Republic, the North by Niger Republic and the East by Zamfara State, Kebbi State to the South-East.

UsmanuDanfodiyo University Teaching Hospital (UDUTH) Sokoto was established on 2nd May 1980 and located along GarbaNadama road, Gawon Nama area, Wammako Local Government Area of Sokoto State. The Specialist Hospital Sokoto (SHS) came to be in 1991 during the regime of General Ibrahim Badamasi Babangida. The choice of these hospitals was made because they are the only main public healthcare facilities serving as a referral centres to primary and secondary health centres in Sokoto, Kebbi, Zamfara states and the neighbouring Niger Republic. The hospitals are made of several departments and units. The Obstetrics and gynaecological department comprises of gynaecological ward, lying ward, antenatal clinic and ward, MVA room, ultra sound unit, labour ward, fertility research unit and gynaecological clinic. The fertility research unit and gynaecological clinic run from Mondays to Thursdays in UDUTH and on Tuesdays in SHS. The hospitals (UDUTH and SHS Sokoto) were used as the site for recruitment of the research participants.

The target population for this study were all women with infertility attending the gynaecological clinic of UDUTH and SHS Sokoto for infertility treatment. Women within the child bearing age of 18-50years married or are in a cohabiting for more than one year. Women who can speak in English or Hausa language diagnosed of either primary or secondary infertility. Women on initial or follow up visit were included in the study. Post-menopausal women, women who had permanent sterilization and whose partners have permanent sterilization were excluded from the study. Purposive sampling is a non-probability sampling technique known as judgemental sampling. It is described as a method that allows for the selection of a subset from the entire population based on the researcher's knowledge of the topic under study (Grove, Burns, & Gray, 2012). Therefore, a non-probability purposive sampling technique was employed to recruit the consent participants to participate in the study. The technique allows and guide in the selection of women with the experience of infertility. As such the researcher recruited participants with the predetermined criteria that gave relevant data until data saturation level is achieved. Consequently, at the fourteenth participants, data saturation was reached given rise to a sample size of fourteen (14) women with infertility. Semi structured interview guide was used to give focus and direction to the pattern of the in-depth face to face interview in order to extract relevant information from the participants. More so, the instrument used for data collection was adequate enough to elicit information that was produce answers to the research questions. The interview guide was developed based on the objectives of the study and literature. The semi structured interview guide was made of open ended questions divided into two sections (section A-participants' socio-demographic data and section B-questions on health seeking behaviour of the women).

Pretesting of a research tool ensures the accurateness of the tool to obtain anticipated responses and also to aid in amending the tool prior to its administration to the recruited participants, the semi structured interview guide was pretested at Women and Children Welfare Hospital Sokoto on two women who came for infertility treatment. The piloting was done to ensure that the questions asked will be comprehensive and to determine practical usage. Questions that were not cleared were reframed. Rectifying the gaps identified helped to improve the instrument and provided assurance for its practical usage. It is important to note that the pilot data was not included in the study. An introductory letter from School of Nursing and Midwifery University of Ghana and research proposal were used to request for ethical clearance and administrative approval from the Health Research Ethics Committee of UDUTH and SHS Sokoto. Furthermore, an office was requested from the in-charge of the gynaecological clinic in order to ensure privacy and favourable environment for the interview.

Ethical clearance and administrative approval were obtained from UDUTH and SHS ethical committee. With the assistance of the midwives working in the gynaecology clinic of the study areas, the clients' files were used to identify suitable participants. Then the consented participants were recruitment for the study based on the predetermined criteria after introduction of self and establishing rapport. The participants' phone numbers and home addresses were taken with their permission for follow up. The participants that gave their consent were interviewed at a scheduled time, venue and day convenient for each of the participant. Eight (8) participants were interviewed in the assigned office at the gynaecology clinic and 6 participants were interviewed at their respective homes. Verbal and written consent were requested from the participants after explanation of the purpose and benefits of the study. The study participants' permission was also sought to audio record and take notes of observation that cannot be recorded by the tape in order to retain relevant information.

The interview which lasted for about 30-45munites was conducted in English and Hausa (predominate local dialect) language. The data collection was done within two weeks. The researcher personally conducted the interview utilising the guide. The thoroughness that was applied in the data collection process is to help reduce potential bias to the results of the study that might be introduced by untrained personnel used for data collection (Polit & Beck, 2012). The researcher used the thematic content analysis style described by (Vaismoradi, Turunen, & Bondas, 2013). In using this style, the researcher assumes a position of an interpreter by reading through the

data, making meaning out of segments which are used to develop major and subthemes (Vaismoradi *et al.,* 2013). Data generated was manually and electronically managed. Translation of interview conducted in Hausa language was then followed by transcription of the data by the researcher. Pseudonyms were given to represent each participant conforming to their transcripts. The transcribed notes were prudently and intentionally read through, comparing it with the audio tape recorded over time again and again to ensure consistency. To ensure integrity of the information, the recorded tape and transcribed documents was vetted the supervisor. Field notes, field journal of dates, time and place of interview sessions were well-kept. Coding was done and the corresponding codes were used to bring out the comprehensive meaning and understanding. Codes were categorised to connect patterns and structures to form major themes and subthemes. Quotes were used to support the main themes and subthemes which were logically organized beneath the constructs derived from the conceptual framework and study objectives including the two main themes that emerged. The transcripts and field notes were securely kept in files under lock and key under the researcher's guard. The audio files from the interviews were pass-worded in the researcher's laptop. Only the researcher have accessible to the data.

According to Prion and Adamson (2014), rigor is the principle that underpins the being sure of the data collection, analysis and interpretation (methods) as truthful. Collectively, rigour establishes the integrity and fitness of the method used in carrying out the study. However, they also warn that qualitative research should be evaluated on the basis of research ethics and respect for participants. The four criteria are credibility, transferability, dependability and confirmability. Then during the face to face in-depth interview, field notes taking was done to include gestures that cannot be captured by the recorder. This was used for summary and transcription of the interview. The summary was in turn used to seek for clarification from each participant based on the data coded and meaning given to the codes in summary of the interview. Allows for the application of results of the study to another population in a different but similar background or setting (Lincoln & Guba, 1985; Prion & Adamson, 2014). As a result, the comprehensive description of the methods with attention payed to the setting and participants used was done. This was done to help the reader decide on the possibility of replicating the method on another population with different context but similar characteristics. The researcher obtained ethical clearance and administrative approval from the Research Ethics Committee of UDUTH and SHS Sokoto on presentation of an introductory letter from School of Nursing and Midwifery University of Ghana and a research proposal. With the assistance of the nurse in charge of the gynaecology clinic, explanation was given to the recruited participants on the purpose and benefit of the study. Emphases were made on voluntary participation and that participant is free to opt out at any level of the research or stop the researcher at any level of the interview. The study participants were also educated that consent covers tape recording of the interview, notes taking of observations that cannot be recorded by the tape, description and reporting of the findings. The study participants were assured of confidentiality of all the information given during the interview. As such, the tape recorder and notebook were constantly under lock and key when not in use and transcript and computed information were pass-worded. Participants were informed not to use their names or any form of identification. Even on the field note taking, only coding/ pseudonyms was used in order to eschew the real identification of the participants thereby ensuring anonymity. An office in the gynaecological ward was used to ensure privacy for those interviewed conducted in the hospital. The participants were guaranteed of no harmed throughout the study. Then, the participants were requested to indicate their consent by ticking a box on the consent form.

RESULTS AND DISCUSSION

The demographic characteristics are presented first followed by the themes.

Table 1. Demographic Characteristics of the Study Participants

Variables	Frequency (N=14)	Percentage (100%)
Age (years)		
20-29	3	22
30-39	9	64
40 above years	2	14
Marital status	All married	100
Duration of marriage (years)		
1-5	4	28
6-10	7	50
11-15	-	-
16-20	3	22
Duration of infertility (years)		
1-5	6	43
6-10	2	15
11-15	3	21
16-20	3	21
Parity		
None	10	72
One	2	14
Two	2	14
Educational status		
Primary school	0	0
Secondary school	4	29
Diploma	4	29
Degree	6	42
Religion		
Islam	8	57
Christianity	6	43
Family income		
<₦100, 000	3	22
>₦ 100,000 – 200, 000	3	22
>₦ 200,000 – 300,000	0	0
>₦ 300,000 – 400,000	1	7
Do not know spouse income	5	35
but participants earn <100,000	2	14
Refuse to respond on income		
Overall participants	14	100

Source: Transcribed data (2023).

The study participants were all women within the age range of 22-45years. The participants were married with different years in marriage and 5 participants were in polygamous marriage. A large number (n=8) were Muslims with 6 participants being Christians. Half (7) of the participants were predominantly Hausa Fulani by tribe, 4 from Northcentral and 3 were Igbos from the Southeast, all resident in Sokoto. Among the 14 participants, 10 had no child at all, 2 had 1child each and 2 had 2 children each but still consider themselves as having fertility problems. All the participants completed some form of formal education out of which 10 had tertiary education and 4 had finished secondary school. Eight (8) of these participants were working, 3 were engaged in small trading while the remaining 3 were housewives. The family monthly income also varied among participants from low (<₦100, 000) to middle income (>₦ 200,000) while 2 participants chose not to speak on the family monthly income.

Table 2. Themes and Subthemes

S/no.	Themes		Subthemes	code
	Theoretical	Emerged		
1	Symptoms Salience	-	• Delay in conceiving • Desire to have children • Trying to conceive	SS
2	Life Course Factors	- -	• Childbirth as a norm • Age as a push factor • Lack of children as a push factor	LCF
3.	Enabling and predisposing factors	- -	• Resource and support • Treatment beliefs	EPF
4.	Health seeking behaviour	-	• Decision making • Seeking for medical help • Seeking other sources of treatment • Acceptance and adherence to treatment	HSB

Source: Transcribed data (2019).

According to the participants' symptom salience refers to the obvious happenings around them that made them take cognisance of their infertility and prompt them to start seeking for help to conceive. This was explicitly expressed by the women as how they were able to detect symptoms by themselves. Some of the women compared themselves with women they got married same time with who have children. Others took cognisance of how long they have been married and having unprotected sexual intercourse. They expressed their desire to have children in various ways. For some, children provide companionship; some want more children because it is not bad to do so and others want to deliver for their husbands. Symptoms salience was described as delay in conceiving, desire to have children and trying to conceive.

Recounting delay in conceiving; Kyauta shared that she patiently waited and observed the year passed by after marriage without pregnancy. But she observed as some other women got pregnant immediately after marriage;

Since I married, I have not gotten pregnant o, we waited for one year after marriage. After one year there was nothing you know? But I observed that some people got pregnant immediately, some six months and some even one year after marriage (**Kyauta, 33years**)

Izatu expressed that she has not used any contraceptives to delay pregnancy and she has been having frequent sexual intercourse with her new husband for two years, still no pregnancy;

After the divorce with my ex-husband then I married this present husband, I have never done family planning and we have been together for the past two years but up till now, I have not conceived (**Izatu, 35years**).

Alheri shared how she observed the symptom of delay in conceiving few months into her marriage as she expected immediate conception. She impatiently went to the hospital but was advised to wait longer which she patiently did for 3years yet no pregnancy;

I went to hospital after some months myself. So they said we should not worry if there is problem either from my husband or me, they will know after 3years. So we were patient and managing with our lives like that till after the 3years (voice down) *but still no pregnancy* (**Alheri, 39years**).

The women who had no children at all, desire to get their own children while those with 1 or 2 also desire to have more children. These intentions to give birth were described in various ways.

Alheri narrated that it is good to have companionship in the form of a child. For that reason, she has even adopted children: *Yes, I thought of having a child. My sister, it is good to have children as companion at home, one person cannot help herself even right now, I have adopted children with me* (**Alheri, 39years**).

In trying to conceive, Azume described the several efforts made to sustain all the pregnancies she had to term by seeing doctors and adhering to treatment regimen but all efforts were unsuccessful;

Several times, several times I thought and desire to have a child of my own that is why I kept trying to sustain the pregnancies. I went for all the tests and adhered to doctors' instruction but still the pregnancies refused to reach term (**Azumi, 43years**).

Kyauta narrated that after waiting for one year; she actively tried to conceive by consulting a doctor. She explained that the doctor she consulted was recommended by her husband because he does not have time to wait for her turn in the tertiary hospital:

*He is the one, he was using that clinic before I came, and he now said we should go to that clinic. You know, I am a new person here and my husband is working here, he now said he will not have time, in (hissed)UDX they use to waste time that is better we go to clinic that he will go and come back so that he will be able to go to his place work (**Kyauta 33years**).*

Life Course Factors

The women described their life course factors as childbirth as a norm, their age and lack of children as push factors for trying to have their own children. This is how Sonia described childbirth as a norm. She was overwhelmed with her inability to conceive after marriage since conception is customarily after marriage. She expressed the duration of her infertility as a condition she is suffering since childbirth.

Okay [tau] (high pitch voice) *what do I say?* (silent) *after marriage, which is the normal thing,* (lowered voice pitch)

woman after marriage is expected to be pregnant but since after marriage I have not conceive not even saying that I was, maybe there was a miscarriage; even since birth let me just put it like that I have not been pregnant before (**Sonia, 34years**).

Alheri, in narrating childbirth as a norm recounted that her in-laws expected immediate conception after marriage since she and her husband were faithful to each other before marriage;

When we got married his people were expecting that immediately we got married, we will have a child because we did not live a wayward life….. Not knowing that after getting married I started having this, I face the challenge (**Alheri, 39years**).

In expressing childbirth as a norm, one of the women lamented how she became disappointed after marriage for not conceiving because she never thought that she would be married for up to 3years without getting pregnant;

I got married 3years ago, 2016 December, sorry 26th March 2016 by the 26th of this month it will 3years now. Sincerely, since when I was 7 months in marriage, I was not happy because since I got married I desire to have my children. I never thought I will be married for 3years without getting my own child (**Yar-Buga, 27years**).

In expressing childbirth as a norm, Kyauta recounted the many years she has spent in marriage without having a child;

I have been married since 2012, this month is the 7th years now. (Lowered voice) *I do not have any children despite all my effort* (**Kyauta, 33years**).

Izatu expected immediate conception after marriage because it is customarily expected as she shared her experience of infertility in her second marriage;

I got married 2008 had two children before I was divorce… I was in my parent house for one year before I remarried. Since I married this man, it is two years now but am still not pregnant. He has five children with his first wife. You see, I need children of my own with him (**Izatu, 35years**).

Childbirth as a norm in marriage was expressed by Amal, a 45year old woman who lamented for not conceiving in her first marriage of 17years. She also shared how she had to remarry after her first husband died in anticipation of getting pregnant but no pregnancy came in her two years of marriage;

"My first marriage, which was [pause] *married 17years ago, so my husband died 5 years ago, so I even re-married. Now am married two years ago that is my second marriage but still I did not have any issue"* (**Amal, 45years**).

Charis viewed childbirth as a norm because to her, children are the joy of marriage since a child makes a woman gain acceptance by her in-laws;

I married October 2016 and since then am having difficulty in conceiving. Like the first month, the second month that I got married, there was nothing like [ehh] pregnancy, so I went to the clinic….. I want to have my own children because [pause] (high pitched voice) *children, they are the joy of marriage because any marriage you are into without a child even your in laws, that is your husband's family members, they will not consider you as part of the family till when you have a child* (**Charis, 36years**).

Gomma equally narrated how she is now having problems with her in-laws that once loved her. She related her lack of childbirth after marriage to be responsible for the problem she is experiencing with her in-laws because she was loved by her in-laws before the infertility issue unfolded. This was how childbirth as a norm was described by her;

Initially when we got married, my in-laws love me because we are somehow related with my husband by blood; we are from the same family. So they love me and I don't have any problem with them but the problem I am experiencing with them now is related to my inability to give birth. That is what is bringing the misunderstanding between us (**Gomma, 25years**).

The participants have expressed their concerns on one of the life course factors which is childbirth as a norm. They shared how lack of children in their marriage is affecting their marital relationships. Age is another life course factor that prompted some women to seek for medical help to conceive. Only Alheri and Azumi in this study explicitly paid significant attention to their age as a push factor.

Alheri feared that menstruation has a time bound as such it can stop at any time with aging, that was her description of age as a push factor;

What motivated me was that [ee] as I am, am going to 40 now. Let's say, give me 2years or 1year, let me 1year because by May I will be 39 [pause] *according to the date given to me right from my childhood. So, am considering my age is going. Tau! Menstruation have limit….. So, it can stop at any time* [pause]*, so that is my fear* (**Alheri, 39years**).

Similarly, Azumi seems overwhelmed with her age which is the push factor that makes her to still see the need to seek for conception;

I think am aging now at [pause] *43 to 44years. I cannot remain like this; I am trusting God let me not stay the like this. I am* [pause] *maybe is my destiny* (**Azumi, 43years**)

This was how Charis expressed her lack of children and her eagerness to have a child by relating her infertility to a condition from her childhood;

And since my youth, since I started my menstruation since I came to my puberty age, I never got pregnant before talk more to do any abortion. So, that was the first pregnancy I had after 2years of treatment and I lost it (**Charis, 36years)**

According to Hannah, lack of children has influenced her to still search for children by going to see doctors after losing the first pregnancy;

The first one that I have that one died in that 2013, I took in but the child died inside the womb. I went to hospital in 2015 and I went to see doctor at that my clinic side because I did not conceive again (**Hannah, 33years**).

Enabling and Predisposing Factors

The enabling and predisposing factors described by these women were resources and support, and treatment beliefs.

Describing resource and support as enabling factors; Tumba a working class woman reported that her family income is not very bad because they can afford to pay their bills without much stress. As such she paid for majority of the expensive treatment that the NHIS did not cover;

Family income [pause] I think to say is okay to some extent as in we can provide almost all we need without too much difficulty. Although I have NHIS I paid for some of the tests because the NHIS only covers I think, high vaginal whatever and all those minor investigations that are not expensive they accept NHIS. But with all those imaging test NHIS does not cover it. In fact, because where they asked me to do the tests are not accepting NHIS and where they accept NHIS, the machines are not functional, so I had to pay myself (**Tumba 33years**).

Treatment belief was another way the participants described enabling and predisposing factors. Reporting on treatment belief; Tumba and Izatu narrated that they cannot vouch for traditional medicine because it can be harmful. Since they do not know the content, mode of action and the information were not online for them to check. They recounted that they strongly believe in the safety of the medical treatment because investigations were always carried to identify the problem which is good. They mentioned being comfortable with the medical treatment they had so far because even when they checked online they found that those were the right treatments for infertility and they did not experience any side effect as described by Tumba and Izatu;

I have never used any treatment channels because I belief hospital is the only place that I can seek remedy to my being unable to conceive. I don't know the content of all the traditional concoctions and I cannot say how they work. And there is no means for me to google and see how they work, so I just feel like the only remedy is for me to go and see doctor. The hospital treatment is okay, because whatsoever they place you on with this global whatever they are having, if you google to look at it, you will see that they are the remedies to the inability to conceive. And I am not having any side effect or any problem to any of the treatment, so, is okay. And that is the only reason am sticking to their instructions because I believe this is the place that I can seek remedy to my being able to conceive (**Tumba 33years**).

I went to the hospital because visiting the hospital is the proper thing to do. When I went they requested for some tests. They first did those tests to check if there is anything wrong with my system that is preventing me from conceiving and to also check if he has any problem that is preventing him from impregnating me. You see, that means going to the hospital is good because they were able to identify the issue since his result was normal maybe the problem is from me though the first result was normal and now is the second tests that they want me to do. Which means going to hospital is relevant. Instead of staying at home and be doing self-medication or taking native medicine [pause] *one is just killing oneself because you don't know what will happen to you* (**Izatu 35years**).

Health Seeking Behaviour

The health seeking behaviour of these participants was defined as the complex process involved and the experiences attached to choosing treatment for infertility. Decision making was one of the health's seeking behaviour steps the women went through. The process involved advising oneself, sought and got advice from people and negotiated with their husbands before using the medical treatment outlet.

Sharing her experience of decision making, Izatu narrated that when she told her husband about the need to seek for medical help to conceive, he was reluctant because he does not have money. She stated that she made efforts to convince him that the initial visit might just require investigations which they can do later when he gets paid;

We were just discussing with him in the room then I brought the issue of the need to go to the hospital for solution to my difficulty getting pregnant. He said he doesn't have the money. I encouraged him that we should just go for the first visit, because I belief they will just request for tests which we can do later when you get your salary [pause] you see the hospital is better honestly. We were just sitting down when I suggested that (**Izatu, 35years**).

Still on the decision making step of treatment seeking, Adasa and Vida narrated that they were advised to seek for medical treatment by people close to them on consultation with them about their problems of infertility. So, they chose the medical treatment as expressed by Vida and Adasa;

I was advised to come to the hospital by that my friend. I went to my friend and complained to her that this is what is going on. So, she now said okay she knows someone in here in UDX that [ehh] that I should come so that we can go and meet the doctor and then do some tests maybe the problem will be identified from the result. That is why I come to the hospital. It was a friend that advise me to come to the hospital and I chose to come [silent] (**Vida, 31 years**)

My superior where I was working before and others advised me that to go for test. Even from my husband side [pause] *advised to me seek for help. I thought of [ehh]* [pause] *visiting the hospital before (*knock the table twice) *my superior advised me. She said that I should go and visit the* (knock the table twice) *hospital to check if there was problem so that urgent action will be taken before it gets worst. So, when I went and they did the tests but they couldn't find anything* [pause] *because everything was just normal* (**Adasa, 35years**).

The health seeking behaviour of these women was furthermore described as seeking medical help.

However, they were told to go back home and keep trying and to come back after a year when nothing happens because it was too early to detect any fertility problem which they obeyed as expressed by Yar-Buga and Alheri;

...As such 7 months into the marriage I went to see the doctor and she advised me to be patient till after one year of marriage because she cannot be able to identified if I have problem or not till after one year. When I completed the one year, I went back to the hospital (**Yar-Buga, 27years**).

I went to hospital after some months', so they said we should not worry if their problem either from my husband or me, they will know after 3years. So we were patient and managing with our lives like that till after few years (voice down) *but still no pregnancy* (**Alheri, 39years**).

In seeking other treatment options to conceive; Vida shared doing a self-medication for infection and also patronised the prayer houses prior medical treatment;

....So, I went and did self-treatment of infection and other things to see may be I will get pregnant again and there is no any sign of anything. I went for prayers, I met the pastor and told him my problem and he prayed for me but (giggle, smile) *the funniest thing is that any pastor I met and prayed for me, he will tell me that there is no problem with me that my children are on the way, that is it. But later I started going to hospital when I did not get pregnant* (**Vida, 31years**).

The women in defining acceptance and adherence to treatment as part of their health seeking behaviour expressed persistence in follow up care and sticking to medically recommended treatments/instructions. They explicitly mentioned that they are sticking to medical treatment and doctor's instruction because they desperately need to conceive as described by **Hanna** and **Tumba**

*[ehh]when I went for tests, (*lowered her voice*) they said the mouth of the womb is close. So, I was told to meet my doctor to open the mouth of the womb for the test. I met Dr. XXX* [name mentioned] *who tried with other doctors but could not see the mouth of the womb. So, [ee] November in 2017 I had the first this operation and immediately I was sent to do the test. When I went for the test, I was sent back to my doctor that the womb is closed again. Dr. XXX* [name mentioned] *took me to the theatre in December 2018 and I had the second operation. After the operation, the doctor confirmed that the place was opened. I confirmed it too because my period before* (shake her head) *but now, the thing is flowing well more than the way it used to be* (Crying but still talking) *my period even comes with thick clot. My next clinic day will be next month and I am preparing to go because I have not started taking medicine. They said if I start seeing my period, I will start taking the medicine so that will help me* **(Hanna, 33years)**.

When my husband refused to do his tests, I then decided to follow the doctor instructions to do more tests that may determine [abi] tell them the whole issue with regards to my reproductive system. So, that was why I went for that HSG (voice lowered down) *which was very painful and expensive. I did test twice because they could not see the first result in my file. So, the result showed that the fibroid was bigger because of the drugs I took and the fibroid was removed. The doctor said we should just increase the frequency of meeting,* (clap hand)*, we should take high something diet, I am doing all the doctor have instructed. So I just feel like the only remedy is for me to continue seeing doctor. And that is the only reason am sticking to their instructions* (**Tumba, 33years**).

Discussion of Findings

The discussion is presented according to the major themes and subthemes which were based on the objectives of the study. The women detailed demographic characteristics preceded before the discussion on the themes.

Participants' Demographics

The demographic characteristics of these women were essential findings of this study which reveal that all the 14 participants were married out of which 5 were in a polygamous marriage and the duration of infertility was 2-20years. The women were within the ages of 22- 45years out of which majority (9) were within 30-39years. All the women were formally educated; 10 had tertiary education and 4 had secondary education. The women were empowered financially since 8 of the participants were gainfully employed and 3 were small scale traders. This study is in agreement with the characteristics of the women in Ghana that sought for help to conceive where majority of the women were within the ages of 30-39years, married, formally educated and gainfully empowered as established (Kussiwaah, 2016; Naab *et al.,* 2013). This implies that educational level, economic status and age of women are life cues that prompt health seeking behaviour. In this study, majority (10/14) of the women were diagnosed of primary infertility while 4 had secondary infertility as also seen in (Kussiwaah, 2016) where primary infertility had 12/14. The congruency in the studies might not be unrelated to the similarities in the setting (West Africa) of the study. Similarly, the participants were predominantly Muslims 8/14 and 6/14 were Christians. This finding is in agreement with the study of Sarkar and Gupta (2016) in Indiawhere majority of the participants belong to the Muslim faith. The corroboration in the two studies might not be unrelated to the belief found in the predominant religion in the area.

Life Course Factors of Women with Infertility

Life course factors in this study were those indicators that stimulated health seeking behaviour in these women. This study finding shows that in the Nigerian tradition, immediate conception is customarily expected after marriage as a symbol of womanhood (blessing of marriage), joy of marriage, and reward of faithful premarital life and license for acceptance by in-laws. As a result, lack of immediate conception after marriage provoked concerns in these women that prompted help seeking to conceive. This study finding concurs with some part of the study by Naab (2014) which reported that in Africa children are normally expected in marriage to ensure completeness (womanhood) and stability of marriage. Furthermore, as a norm in Africa, women were expected to fulfil the fundamental role of procreation or risk loss of benevolence from husband's family (Adongo, 2013b). This explains why some of the women in this study were overwhelmed and disappointed with advancing years of marriage without children as the norm entails. The women in the current study felt life was unfair because they were denied blesses of marriage which led to rejection from in-laws (Naab, 2014; Tabong & Adongo, 2013a) studies also established similar findings that women are unhappy in marriage. The finding of this study further reveals that majority of the women that sought for medical treatment to conceive were married for some years without children. In terms of age as push factor, the result obtained from this present study gave an explicit expression of age as an indicator to treatment seeking to conceive. Few (2/14) of the women in this study revealed that they were in apprehension because of their advanced age since they knew that menstrual cycle ceases with aging hence, the help seeking to conceive. This finding corroborates with several studies which noted that older married women do more help seeking to conceive (Datta *et al.,* 2016). Similarly, part of the current study was consistent with studies that observed that women with primary infertility did more help seeking to conceive. This was however, inconsistent with the study of Sarkar and Gupta (2016) which established that majority of the

women that sought for medical help to conceive in India had secondary infertility. This difference might be related to lack of awareness as infertility was higher among women who have not attended formal school.

Enabling and Predisposing Factors Leading to Health Seeking Behaviour among Women with Infertility

Treatment seeking for infertility is driven by multiple factors, resource and treatment beliefs inclusive. In this present study, vast numbers (8/14) of the women were working class women who had tertiary education and others (3/14) were gainfully empowered (trading). The findings of this study explicitly revealed that the literacy level of the women helped them to identify that they have fertility problem and prompted health seeking to conceive. In congruency with these current findings, several studies established that educated women with good earnings/family income do high medical seeking for infertility than those with low education and income (Datta *et al.,* 2016). However, the findings further revealed that women acknowledged that the treatment of infertility is expensive.
In line with the present finding, it was reported that women complained of the expensive nature of the treatment and that certain test and drugs were not accessed in the public hospitals (Dierickx *et al.,* 2019; Tabong & Adongo, 2013a). There is the need for the healthcare system to consider subsidising and integrating consistently basic infertility investigations in the public health facility. Similar finding was reported, where women used their life savings for treatment of infertility (Dierickx *et al.,* 2019) and sometimes even experienced delay in treatment because they were limited by funds(Dierickx *et al.,* 2019). This shows that despite the economic challenges, women are ready to go the extra miles to seek for help to conceive. Therefore, the commitment of the women with meagre earnings to use their savings to seek for treatment that is considered expensive even to women with sound financial status is quite commendable.

Health Seeking Behaviour of Women with Infertility

Health seeking to conceive is a complex process that entails consulting and negotiating with husbands, family and friends before internalising advice to take action. In this present study, majority of women were advised to go for medical treatment by husbands, close family, friends and intimate medical professionals who noticed the delay in conceiving. Even where some husbands were reluctant to consent to medical treatment but want to wait patiently on God, the women still took the decision to access medical treatment. Contrary to the study that demonstrated that mother in-laws often make the decision for medical treatment seeking (Mumtaz *et al.,* 2013). The difference in the findings might be related to the demographic characteristics of the respondents. This shows that women with social support were always the first to seek for medical treatment for infertility. Utilisation of medical treatment by the participants regardless of educational level in this study was done earlier than medically necessary. This was because of the customarily expectation of immediate conception after marriage and the women's desire to have children. Some women did medical treatment seeking at 3-7 months after marriage without pregnancy. But they were medically advised to continue trying until at least 1year without pregnancy. Keeping to this current finding, (Mumtaz *et al.,* 2013) reported that 3months after marriage women were pushed to sought for medical treatment to conceive. In terms of using other treatment sources, it was observed that few (5/14) of the women initially sought for help to conceive through alternative treatments by doing self-medication and online health seeking. This is in agreement with the report by Slauson-Blevins et al. (2013) that some women avoided consulting with a doctor in person but did online health seeking. Other forms of alternative treatment used were supplements, faith-base and traditional medicine. However, few women combined both medical and faith-based treatment. This information corroborates with that in several studies (Gupta, 2016) that reported that women trying to conceive utilise either only medical or in combination with alternative treatment. The similarity in the studies might possibly be because of the value attached to alternative medicine in both Africa and Asia culture. Other reasons for those that patronised other public hospitals as initial centre were; bad attitude of health professionals and lack of treatment satisfaction since there was no pregnancy. Treatment of infertility might possibly take a long period (20-25years) before conception is achieved (Dierickx *et al.,* 2019).

Summary

Worldwide the prevalence and burden of infertility is significantly huge with medical help seeking reported from different countries however, little health seeking was recorded in Nigeria. What was worse is, none was reported in Sokoto State. Thus, the Help Seeking Conceptual Framework was used to guide to the health seeking behaviour of women with infertility in Sokoto State. The literature review revealed large number of quantitative studies with a considerable number of qualitative too. The studies were on the prevalence and causes of infertility and medical seeking experiences of women with infertility. Hence, the qualitative explorative descriptive approach was used to give an in-depth understanding of the complexity involved in health seeking to conceive. Ethical clearance and administrative approval was gotten from UDUTH and SHS hospitals upon the presentation of an introduction letter from the University of Ghana and a research proposal. Fourteen women were recruited purposively and face to face in-depth interview was employed for data collection with the help of semi structured interview guide. Methodological Rigor was ensured during data collection and analysis which was done concurrently. Thematic and content analysis were used for data analysis. The major themes were; symptoms Salient, Life Course Factors, Enabling and predisposing factors and Health seeking behaviour.

The findings revealed that the women have good health seeking behaviour. The women in Sokoto desired to have their own children because they like children and culturally children cement marriage and are considered important for religious rites. As a result, the women did medical and faith-based help seeking because they believe infertility is caused by either biological (health in the woman, abortion and contraceptives) supernatural and components (God or evil spirits). Majority of the women strongly believe that it is only God that provides children and that medical treatment can only be effective by God's wish. The women sought for medical treatment even where partners did not consent but partners were insistent on waiting on God to conceive. The social support (advice, prayer, emotional financial) from husbands, families and friends also motivated the help seeking to conceive though, some husbands refused to be tested for infertility. Finally, it is quite obvious that the women find medical treatment expensive regardless of family income. As such plead with government to

subsidise the cost of treatment and empower women to be independent in affording treatment.

Implication of Findings

The findings revealed that majority of the women sought medical treatment irrespective of the husbands' refusal to consent. This is an indication of a strong attitude towards health seeking that can be further sustained through continuous health education of woman at the health facilities. The combination of medical and faith-based treatment outlets was because they believe that God is the giver of children and He does that as it pleases Him. That even medical treatment cannot be productive (pregnancy) except God wishes. Therefore, it is necessary for medical professionals to appreciate the place of spirituality (praying and fasting) in treatment of infertility in order to enhance acceptance and compliance to treatment. Prompt medical seeking can enhance early identification of health problems and prompt treatment of women. Similarly, the use of multiple medical treatment centres for infertility, commencing with the private clinics that do not offer specialised infertility treatment can predispose women to harmful effects on the reproductive system. Other possible consequences are waste of resource and time, delay in health care access, better treatment and prolonged years of treatment can cause a change in the belief of medical treatment. The acceptance and adherence to medical treatment by these women is a positive sign that health professionals can adequately maximise through education to enhance sustainable compliance to treatment instruction to the end. Consequently, it becomes imperative for health workers to prepare women's mind for prolonged waiting since infertility treatment duration sometimes takes time up to about twenty years.

Recommendations

1. Incorporate infertility treatment into its health agenda and special attention paid to the access of medical treatment by subsidising cost of treatment or make it free since it is a public health condition.
2. Stock facilities with infertility treatment resources such as fertility enhancement drugs, equipment for investigations (transvaginal scan and HSG machines).
3. Improve on infertility enlightenment (male factor infertility inclusive) through the use of information education and communication system, mass media campaign and public seminars.
4. Incorporate counselling session to care for women's psychological health.
5. Include strengthening public hospitals in the area of improving treatment infertility at a subsidised cost noting that infertility has been classified the 5th severe worldwide disability by WHO.
6. Create programs that will empower women to boost their financial capabilities.

Conclusion

The women irrespective of educational level, religion, financial sought for medical help to conceive because they believe in medical treatment. The women had the perception that infertility is caused by natural and supernatural factors. As a result, the women sought for help to conceive simultaneously from both medical and faith-based sources. This is because in the northern Nigeria people believed that everything (good or bad) is destined by God. Thus, it becomes essential for health professionals to pay attention to the reasons for the combination of treatment centres and give consideration to spirituality during infertility treatment. It was evident that some women did medical seeking earlier (less than one 12months) than medically expected for infertility health seeking. When they were sent back home to return after a year, some patronised private clinics, visited prayer houses and used close people's advice for self-medications. These avenues have the potential of providing ineffective and harmful treatment to women. Therefore, it is imperative to create infertility pre-treatment (counselling) sessions in health institutions and at the community level to avoid missed opportunities, late treatment seeking and prevent possible harm to women's reproductive systems. The women were committed to accepting and adhering to treatment instructions. This intervention can be enhanced through sound education and orientation during the preliminary session of the treatment.

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