

Knowledge and Practice of Child Adoption among Infertile Couples Attending Fertility Clinic in a Tertiary Health Institution in Benin City, Edo State – Nigeria

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Abstract

The study assesses the knowledge of infertile couples regarding child adoption, determine the level of practice of child adoption among infertile couples and identify the factors that influence the practice of child adoption among infertile couples. The setting was Human Reproduction Research Programme (HRRP) in University of Benin Teaching Hospital (UBTH), Edo State, Nigeria. A descriptive cross sectional design was used with a sample size of 200 respondents that were selected using simple random technique. Data was collected using semi-structured questionnaire and were analyzed using descriptive statistics with result presented on tables and inferential statistics to test for relationship between variables with p at 0.05 level of significance. Results showed that majority 194 (97%) were within the age group of 20-49, and 174 (87%) respondents were females. One hundred and twelve (64.4%) had been pregnant before. Few 21 (10.5%) respondents had good knowledge of infertility while only 12 (6%) respondents had good knowledge of child adoption. The males had better knowledge of child adoption than females ($p = 0.001$). Also, those who had good knowledge of infertility were also discovered to have better knowledge of child adoption ($p = 0.008$). It was concluded that workshops, seminars and health talks should be organized in churches, meetings, town halls, and social clubs concerning child adoption to clarify all doubts and misconceptions. Efforts should be made by stakeholders and the government to make laws that will enable infertile couples to have easy access to adoption as this will prevent baby factories and child trafficking at homes.

Keywords: Knowledge, Practice, Child Adoption, Infertile Couples, Fertility Clinic, Tertiary Institution

1. Introduction

1.0. Background

Parenthood is a fundamental human need and the urge to procreate is virtually universal. Most human beings have a desire to become a parent and look after his or her own child. The desire to becoming a parent is a step in the direction of creating a family. Having children is an essential part of life for most people and in many cultures (Dyer, 2007). The African society places extreme emphasis on procreation in any family setting. The woman's place in marriage remains precarious until it is confirmed through child bearing. In the African society, a woman has to prove her womanhood through motherhood and a man has to confirm his manhood in the same fashion. Children are esteemed as sources of pride, strength and economic fortune for the family, with a man's wealth and strength being equated to his progeny (Ezugwu, 2012). In developing countries, where child-bearing is often highly valued, infertile couples are faced with problems ranging from overt ostracism or divorce to more subtle forms of social stigma leading to isolation and mental distress (Rutstein, 2014, Aina, 2007, and Ameh, Kene, Onuh, Okohue, Umeorah & Anozie, 2007). This is most in developing countries where there is no social security system where older people are completely dependent on their children.

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Adoption is the act of legally placing a child with a parent or parents other than those to whom he/she was born. Adoption under family law has a restricted meaning, various authors and legal writers have defined the word "Adoption" in various ways. In Nigeria, Sections 12 and 39 of the Adoption Act of 1976 defined "Adoption as the process whereby a court irrevocably extinguishes the legal ties between a child and the natural parents or guardians and creates analogous ties between the child and the-adopters". Accordingly, adoption is the termination of a child's legal rights and duties towards his natural parents and the substitution of similar rights and duties towards his adoptive parents (Larry and Chukwu, 2012). Adoption can either be an open or a fully disclosed adoption which allows identifying information to be communicated between adoptive and biological parents and perhaps, interaction between kin and the adopted person. The adoption can also be closed which bars all identifying information from being shared between the adoptive parents, biological kin, and the adoptee (Abubakar,Lawan,Yasir 2013), Omosun and Kofoworola, 2011).

Fertility or the ability to produce children has a positive social value, whereas infertility has a negative value in Africa (Padma, 2008). Infertility is a medical problem of the reproductive system which affects both men and women with almost equal frequency (Sumer, Arafat, Ayesha, Faisal, Side and Annum, 2011). While there is no universal definition of infertility, a couple is generally considered clinically infertile when pregnancy has not occurred after at least twelve months of regular unprotected sexual activity (Sumer.et al, 2011). Infertility can be primary or secondary. The World Health Organization (WHO)(2015), using a two-year reference period, defines primary infertility as the lack of conception despite cohabitation and exposure to unprotected sexual intercourse. Some studies use childlessness as a definition (women with no live birth) based on various reference periods, ranging from one to five years, making comparison difficult. Secondary infertility is defined as the failure to conceive following a previous pregnancy (Waldenstrom, 2008).

Infertility is not only a medical problem but also a social problem in our society as cultural customs and perceived religious dictums may equate infertility with failure on a personal, interpersonal, or social level. It is imperative that people have adequate knowledge about infertility so that couples can seek timely medical care and misconceptions can be rectified (Sumer.et al, 2011). The consequences of infertility in these countries range from economic hardship, to social isolation, violence and denial of proper death rites. Many families depend on children for economic survival, especially in old age. The way in which people deal with infertility is at least partly affected by the values and socio-cultural norms of the community in which they live (Wiersema, Drukker, Dung, Giangand Shermann, 2016). In general women are held responsible for virtually all cases of infertility. Men folk are seen as blameless (Abubakar, Lawan,and Yasir 2013). Consequently, the woman is humiliated, isolated, derided, abused and rebuffed. Such life crises have been the experience of most infertile women in Africa and this is why most women go to varying lengths to get children such as visit to orthodox medical practitioners, herbalists, traditionalists' healers, prayer houses and spiritualists in search of children and a solution (Abubakar, Lawan, Yasir 2013). They would even buy babies (following the faking of their pregnancy) without caring about the source, or engage in secret extramarital sexual relationships (Ezugwu, 2012). Others, who can afford it, try assisted reproductive techniques which are very expensive and have a low success rate and if all these failed, some women may go for adoption (Ezugwu, 2012).Adoption serves not only as one of the coping mechanisms for the infertile couples, it is also important for the adopted children as they would be receiving appropriate care in the form of good nutrition, education, and status in society, which many of them otherwise would have been deprived of due to lack of family support.

Family and society look down on couples who are not able to bear children within a reasonable period of time following marriage(Abubakar,Lawan, and Yasir, 2013).In as much as children bring joy to the home, their absence may also be a cause of conflict between husband and wife. It is an established fact that the importance of children in a marriage and home cannot be over emphasized as their presence means a lot to the parents and guardians. Child adoption serves not only as one of the coping mechanisms for the infertile couples, it also brings succor to the affected couples. This child adoption that may serve as an alternative treatment option for infertility for the affected couples is yet to be fully explored and integrated into management schedule of infertility. The overall stability of marriages and the family in solving some of these problems can be through proper health awareness about child adoption as an alternative measure to infertility management. The marginalization and the unfair treatment of childless couples in the society has been apoint of concern to the researchers, the physical, psychological, social, cultural and economic problems and marriage instability faced by the infertile couples. Also the researchers' observation and interaction during clinical posting at the infertility clinic in UBTH with infertile couples, shows that most of the patients do not have good knowledge about child adoption.

Therefore, this study was conceptualized by the researchers to explore the knowledge of and practice of child adoption among infertile couples attending Fertility Clinic in a tertiary health institution in Benin City, Edo State – Nigeria.

2. Methods and Materials

2.1. Study design: A descriptive cross sectional survey design was utilized for the study. This design was chosen as the researchers intend to assess and analyze data collected from defined population at a specific point in time.

2.1. Study area

The study was carried out in the Human Reproduction Research Programme (HRRP) Unit of the Department of Obstetrics and Gynaecology, University of Benin Teaching Hospital (UBTH), a tertiary healthcare facility in Nigeria. The University of Benin Teaching Hospital (UBTH) was established in 1971 as a federal institution to provide healing, teaching and research in the medical field. It was established by decree No.12 of 1971 of the Midwestern state government as a ‘Midwest medical centre’ which was renamed University of Benin Teaching Hospital in 1972 to complement the sister institution which is the University of Benin. The hospital is one of two tertiary referral hospitals in Benin City, Edo State, its catchment includes not only urban women but also rural women who travel far from their villages to seek tertiary care. Thus, cases of infertility in Benin and other South-South geopolitical zone are seen in the Human Reproduction Research Programme (HRRP) Unit of UBTH. To date, nearly 1000 consecutive couples have been successively managed with ART, with about 200 clients attending clinics on a monthly basis. (Source, HRRP, 2018).

2.3. Study population

The population of study comprise all infertile clients (both old, the new clients, couples, and those that come alone) attending clinic consultation at the Human Reproduction Research Programme (HRRP) in UBTH, Benin City, Edo State. The population of the study was 1,050. This was recruited utilizing the inclusion criteria of respondents visiting the HRRP within the duration of the study, were available at the time of data collection and were willing to participate in the study.

2.4. Sample size determination

The total number of clients attending Human Reproduction Research Programme (HRRP) in monthly basis is about 200 - 350 (Source, HRRP, 2018). The minimum sample size required for this study was determined using the Cochran formula for sample size calculation for a descriptive study (Bertlett and Kxotrlk and Higgins, 2001).

$$n = \frac{Z^2 pq}{d^2}$$

Where

n = Minimum desired sample size

Z = Standard normal deviate usually set at 1.96 at 95% confidence interval

d = Degree of accuracy or precision desired usually set at 0.05 = 5%

p = Prevalence of the condition of interest. Proportion of the population estimated to have a good knowledge of child adoption (based on a study conducted to assess the knowledge, attitude and practice of child adoption among infertile Nigeria women in selected areas of South Eastern Nigeria (Oladokun and Adenike 2010). = 86.4% = 0.864

Therefore, the total sample size was 185 respondents and 10% attrition rate was added making total of 205.

2.5. Sampling technique

A simple random sampling technique was used because it gives participants equal opportunity and prevents bias. The respondents were selected randomly using the lucky dip method with a unique word, “yes” or “No” written in pieces of paper, wrapped, reshuffled thoroughly in a container and the clients asked to pick. Whoever picks “yes” was selected for the study and was given the questionnaire to fill. Questionnaire was administered on every clinic day at the fertility clinic (which holds every Tuesday and Wednesday of the week excluding the period of public holiday). Ten respondents were selected per clinic day and individuals that meet the inclusion criteria were sampled. On each clinic day the list of clients’ presents in the clinic served as the sampling frame from which 10 respondents was selected. This was being repeated weekly until the sample size of 205 respondents was obtained.

2.6. Instrument for Data Collection

Data collection was done using an adapted standardized (Oladokun, Arulogun, Oladokun, and Adenike, 2010, and Adenike, Oyedunni, 2012) structured questionnaire. The questionnaire was adapted from various already existing questionnaires on the topic. The structured questionnaire comprised open and close ended questions. The questionnaire consist of four (4) sections. Section A: Sought information on socio demographic characteristics of respondent/clients, Section B assess the knowledge of infertility, Section C; comprise questions to ascertain the knowledge of child adoption and section D assess the willingness and practice of child adoption.

2.7. Validity of Instrument

To ensure the validity of the instrument the questionnaire was pretested in a private fertility clinic in Ugbowo, Benin City that has virtually the same category of patients and shared similarities with study population. This was repeated after one week to ensure content validity.

2.8. Reliability of the Instrument

This was achieved through a test-retest method by administering 20 copies of questionnaire to participants outside the target population and was retrieved within one week and same questionnaire given again to elicit reliability. 20 women which is 10% of the total sample size for this study was used for this purpose. This was done to know the extent to which a questionnaire, test, observation or any measurement procedure produces the same results on repeated trials. In short, it is the stability or consistency of scores over time or across raters. Pre-test detects double-barrel questions, questions that are difficult to answer and questions not answered or with wrong answers. Such questions were rephrased before distributing the main questionnaires, this help eliminate measurement errors.

2.9. Method of data collection

To collect data for the research, two trained research assistants who were nurses working in Human Reproduction Research Programme (HRRP) centre assisted in data collection. They were familiarize with the questions and mode of filling the copies of questionnaire. Participants were reached during their routine clinic. Therefore, they were accessed after the normal clinic routine. Written and verbal consent was taken after explaining the study objectives to the participants. Participants were assisted in filling the questionnaires especially those who are illiterates.

2.10. Data Analysis

All data were coded, entered and analyzed using Statistical Package for Scientific Solution (SPSS) Version 21 software to analyse the quantitative data using descriptive statistics. Completed questionnaire was screened and cross-checked by the researcher for completeness before the analysis. Descriptive data were expressed as frequencies, percentages and means \pm standard deviation. Chi squared test was utilized in the test of association between variables at $p = 0.05$ level of significance.

1.11. Ethical Consideration

Ethical approval was sought and granted from the Ethics and research committee of UBTH, before commencement of data collection. Permission was also obtained from the Head of the Human Reproduction Research Programme Unit, UBTH, Benin City. Individual Informed consent was obtained from each respondent, full explanation of what the research is all about and the reason for the study which is for academic purpose and the benefit of the study were explained to the respondents. Their participation was voluntary and confidentiality was ensured. No form of harm or injuries was caused to the respondents and they were told that they have the right to withdraw from the study if they so wish.

3. Result

Five respondents were lost during data collection due to inappropriate filling of the questionnaire making a return rate of 97.5%.

Table 1: Demographic Characteristics of Respondents **n = 200**

	Frequency	Percent
Age		
- 20-29	27	13.5
- 30-39	108	54.0
- 40-49	59	29.5
- 50-59	6	3.0
Sex		
- Male	26	13.0
- Female	174	87.0
Ethnic group		
- Benin	68	34.0
- Igbo	30	15.0
- Urhobo	30	15.0
- Esan	25	12.5
- Yoruba	18	9.0
- Others- Hausa, Ibibio, Ijaw, Etsako&Itsekiri	29	14.5
Religion		
- Christian	191	95.5
- Islam	9	4.5
Level of education		
- Primary	8	4.0
- Secondary	25	12.5
- Tertiary	167	83.5
Employment status		
- Unemployed	17	8.5
- Employed	183	91.5
Occupation (n = 183)		
- Skill level 4	62	33.9
- Skill level 3	113	61.7
- Skill level 2	8	4.4

3.1. Table 1 presents the demographic characteristics of the respondents. Their age ranged from 20-59 years with mean of 37 years and modal age group of 30-39 years (54.0%). They were mostly females (87.0%) and Christians (95.5%). Majority were Benin (34.0%). Those with tertiary education were predominant (83.5%), likewise the employed (91.5%) of which majority had occupation of skill level 3 (61.7%).

Table 2: Fertility Characteristics of Respondents n = 200

	Frequency	Percent
Marriage type		
- Monogamous	190	95.0
- Polygamous	10	5.0
Marriage duration (years)		
- 1-5	120	60.0
- 6-10	49	24.5
- 11-15	28	14.0
- 16-20	3	1.5
Infertility duration (years)		
- 1-5	139	69.5
- 6-10	45	22.5
- 11-15	14	7.0
- 16-20	2	1.0
Ever had/been pregnant (<i>n</i> = 174)		
- No	62	35.6
- Yes	112	64.4
Number of deliveries (<i>n</i> = 112)		
- 0-2	100	89.3
- 3-5	12	10.7
Number of children (<i>n</i> = 81)		
- 0-2	70	86.4
- 3-5	11	13.6
Sex of children (<i>n</i> = 66)		
- Male	21	31.8
- Female	26	39.4
- Male and female	19	28.8

3.2. Table 2 presents the fertility characteristics of the respondents. The respondents were mainly of monogamous marriage type (95.0%). Majority had marriage duration of 1-5 years (60.0%) and infertility duration of also 1-5 years (69.5%) while majority of the females have once had pregnancy (64.4%). Out of those that had pregnancy, those with 0-2 deliveries were predominant (89.3%) of which majority also had 0-2 children (86.4%). The children sexes were thus: male (31.8%), female (39.4%) and male and female (28.8%).

Table 3: Respondents' Knowledge and Source of Information on Child Adoption n = 200

	Frequency	Percent
Heard of Child Adoption		
- Yes	192	96.0
- No	8	4.0
Source of information		
- Health worker	74	37.0
- Print and Electronic Media	58	29.0
- Friends and Family	92	46.0
- Educational Materials	46	23.0
- Place of Worship	47	23.5
- Orphanage staff	17	8.5
Understanding of child information		
- Legally taking a child as one's own	76	38.0
- Fostering a child	93	46.5
- Buying a child	32	16.0
Awareness of the requirements of child adoption		

- Aware	60	30.0
- Not aware	140	70.0
Requirements (<i>n</i> =60)		
- Marriage certificate	32	53.3
- Birth certificate	12	20.0
- Passport Photograph	11	18.3
- Medical certificate of fitness	5	8.3
Knowledge of maximum age of child to be adopted		
- No specific age	77	38.5
- 18 years	27	13.5
- Don't know	96	48.0
Awareness of age requirement for adopter		
- Yes	80	40.0
- No	120	60.0
knowledge of age requirement for the adopter (<i>n</i> = 80)		
- Adopter > 25 years if married	32	40.0
- Adopter > 35years if single	22	27.5
- Adopter > 21 years older than child to be adopted	26	32.5
Knowledge of place of adoption		
- Orphanage	117	58.5
- Church	12	6.0
- Hospital	7	3.5
- Court	3	1.5
- Police Station	1	0.5

3.3. Table 3: Of the 200 respondents, 192 (96.0%) had heard about child adoption, with main source of information been friends and family (46.0%), health workers (37.0%). Seventy-six (38.0%) of the respondents believed that child adoption means legally taking a child as one's own, while (16.0%) believed it means buying a child. Of the 60 (30%) respondents who were aware of the requirements of child adoption, 32 (53.3%) said marriage certificate, while 5 (8.3%) said medical certificate of fitness was required. Twenty-seven (13.5%) of the respondents said that the maximum age of a child to be adopted was 18years and 30 (15.0%) said 10years was the maximum age. However, 77(38.5%) said there was no restriction in terms of age of the child to be adopted. Of the 80 respondents who knew that there were age requirements for the adopter, 32 (40.0%) said the adopter must be > 25 years if married and 22 (27.5%) said the adopter must be > 35years if single. Of the 200 respondents, majority 117 (58.5%) said a child could be adopted from an orphanage, and 1 (0.5%) said police station was the place where a child could be adopted.

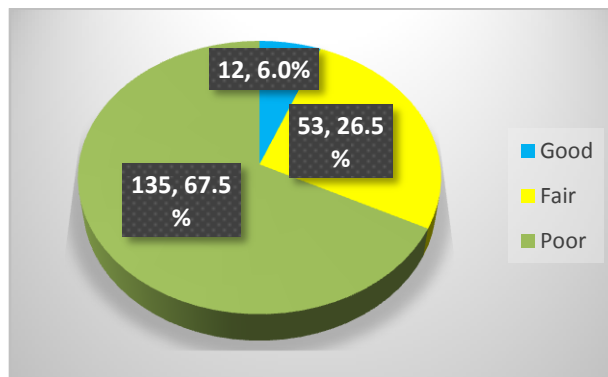


Figure 1: Knowledge Summary of the Respondents n = 200

3.4. Figure 1 presents a summary of knowledge of child adoption. Most of the respondents had poor knowledge (68%); only 6.0% had good knowledge.

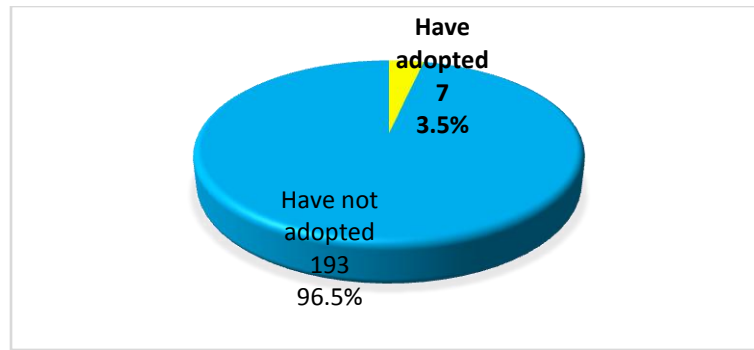


Figure 2: Respondents' Practice of Child Adoption n = 200

3.5. Figure 2 presents the respondents' practice of child adoption. Not up to 5% of the respondents have an adopted child (3.5%).

Table 4: Factors Influencing Practice of Child Adoption n = 200

	Frequency	Percent
Cultural beliefs against adoption		
- No	186	93.0
- Yes	14	7.0
Religious belief against adoption		
- No	190	95.0
- Yes	10	5.0
Fear rejection by adoption agencies		
- No	155	77.5
- Yes	45	22.5
Fear of intervention by biological parents		
- No	92	46.0
- Yes	108	54.0
Fear inherited traits		
- No	90	45.0
- Yes	110	55.0
Doubt ability to love adopted child		
- No	153	76.5
- Yes	47	23.5

3.6. Table 4 presents the factors influencing practice of child adoption. The most influencing factor was that of fear of inherited traits (55.0%) followed by fear of intervention by biological parents (54.0%). Influence of other factors: doubt of ability to love adopted child (23.5%), fear of rejection by adoption agencies (22.5%), cultural (7.0%) and religious beliefs (5.0%) were minimal.

Table 5: Predictors of Knowledge of Child Adoption

	Poor n (%)	Fair n (%)	Good n (%)	Total	Statistic	p-value
Sex					16.08 ⁺	0.001
- Male	16 (61.5)	4(15.4)	6(23.1)	26		
- Female	119(68.4)	49(28.2)	6(3.4)	174		
Age					8.830 [*]	0.145
- 20 – 29	23(85.2)	4(14.8)	0(0.0)	27		
- 30 – 39	69(63.9)	32(29.6)	7(6.5)	108		
- 40 – 49	41(69.5)	14(23.7)	4(6.8)	59		
- 50 – 59	2(33.3)	3(50.0)	1(16.7)	6		
Religion					1.740 [*]	0.313
- Christian	128(67.0)	52(27.2)	11(5.8)	191		
- Islam	7(77.8)	1(11.1)	1(11.1)	9		
Level of Education					1.990 [*]	0.719
- Primary	6(75.0)	2(25.0)	0(0.0)	8		
- Secondary	16(64.0)	6(24.0)	3(12.0)	25		
- Tertiary	113(67.5)	53(26.5)	12(6.0)	167		
Occupation					3.08 [*]	0.502
- Skill Level 4	39(62.9)	16(25.8)	7(11.3)	62		
- Skill Level 3	77(68.1)	31(27.4)	5(4.4)	113		
- Skill level 2	6(75.0)	2(25.0)	0(0.0)	64		
Knowledge of Infertility					12.84 [*]	0.008
- Poor	98(73.7)	29(21.8)	6(4.5)	133		
- Fair	29(63.0)	15(32.6)	2(4.3)	46		
- Good	8(38.1)	9(42.9)	4(19.0)	21		
Knowledge of Diagnosis					6.58 ⁺	0.037
- Known	34(54.8)	23(37.1)	5(8.1)	62		
- Unknown	101(73.2)	30(21.7)	7(5.1)	138		

Statistics Used: Chi-Square Test of Independence (+) & Fishers Exact Test (*)

3.7. Table 5 presents the predictors of the respondents' knowledge of child adoption. Significant predictors of knowledge were gender ($p = .001$), knowledge of infertility ($p = .008$) and knowledge of diagnosis ($p = .037$). For gender, males were associated more with good knowledge than females. Those with good knowledge of infertility were associated with better knowledge as well as those who knew their diagnosis.

4. Discussion

The major finding showed that 194 (97.0%) of the respondents were within the age range of 20-49 years which is within the reproductive age of 15-49 years in the general population thus the sample was a representation of the reproductive population as compared to the age ranges in the studies carried out in Denmark (15-44years), (Padma,2008) Auckland (15-44years) (Padma,2008), Pakistan (18-75years)(Abubakar,2013). South Africa (15-44years), (Padma,2008) Ghana (15-39years) (Padma,2008), Zaire (19-43years) (Adesiyun,2011), Ibadan (20-46years)(Oladokun,2012). The age range in this study reflects that patients tend to present for infertility earlier in the study area than in the populations mentioned above. Majority of the respondents were within the age group of 30-39 years and this could be due to the fact that this age range falls within when couples are expectant after marriage and begin to worry about their fertility status and so present for fertility treatment.

Also, 87.0% of the respondents were females, which was similar to the finding from an Ibadan study (Oladokun,2012) where 61.1% of the respondents were females. This indicates the predominant practice of females taking responsibility of child bearing and infertility and making the first move to seek solution possibly because the society often perceives them to be the cause of the problem. In addition, 83.5% of the respondents and 87.0% of their spouses had tertiary level of education which is in keeping with the NDHS survey of high educational level in Edo State, compared to the finding from the study carried out in Ibadan, Nigeriaby Oladokun, (2012), where 75% of the respondents had secondary school education or above. This is a reflection of the better level of education in the study area, especially with the number of tertiary education facilities in the study area. The educational level affords a higher level of enlightenment and exposure to options available to solve their fertility problems.

Majority (95.0%) of the respondents were in a monogamous marriage, which is similar to the finding from the study done in Lagos and Ibadan, Nigeria, where 89.4% and 80.8% of the respondents were in a monogamous marriage respectively (Omosun et.al,2011) and (Oladokun,2012). This is contrary to the study carried out in Zaria, Nigeria in 2006 where only 44.8% of the respondents were in a monogamous marriage (Adesiyun,2011). This is a reflection of the predominant type of marriage practiced in the region. Also, 60% of the respondents had been married for a period of 1-5 years with the mean duration of marriage been 6.66 ± 3.85 years. However, 69.5% of the respondents had been infertile for 1-5 years with the mean duration of infertility been 5.09 ± 3.25 years, which was similar to that in the Lagos study where the mean duration of infertility was 5.4 ± 4.4 years (Omosun et.al,2011). Unlike that in the study carried out in Zaria, Nigeria in 2006 where the duration of infertility ranged from 1-13 years with a mean of 1.8 years (Adesiyun,2011). This finding is a reflection of the health seeking behaviour of the people in the study area as they would wait for an average of 5.09 ± 3.25 years before seeking medical attention or may have been trying other options or seeing private general practitioners or spiritual therapists.

The predominant type of infertility in the locality from the study was found to be secondary infertility as 64.4% of the female's respondents had been pregnant before. This is in contrast to the study carried out in Denmark (Padma,2008) where only 4.1% of the respondents had primary infertility, and similar to that in the studies done in Zaria, Nigeria (Adesiyun, 2011), and Pakistan (Khalid,2012) where 64.4% and 86.0% of the respondents respectively had secondary infertility. This finding could be explained by the fact that secondary infertility is more common globally.

Almost all the respondents (96.0%) had heard of infertility with 72.5% having heard from the hospital and just a handful (3.5%) having others (to which internet was added) as source of information. This finding differs from that of the study carried out in Poland where 93% of the respondents used the internet as their main source of information on infertility (Talarczyk,2012), although this study was focused on the use of internet as a source of information among infertile patients. However, the low rate of internet use as found in this study is reflective of the poor use of internet either due to the high cost, lack of access to computers or absence of internet enabled mobile phone, lack of adequate power supply or poor connectivity of the various internet providers.

Result revealed that 58.5% of the respondents correctly knew that infertility is the inability of a couple to achieve pregnancy, 25.5% and 16.0% of the respondents said it was a woman's inability to get pregnant and it was a consequence of previous risky sexual behaviours respectively as compared to the finding in the study done in Pakistan where 60.0% of the respondents had correct knowledge of infertility. However, the study carried out in Ibadan, Nigeria by Oladokun (2012), showed that 96.7% of the respondents correctly knew what infertility meant. These findings are a reflection of the predominant cultural belief system that the woman is to be blame for infertility which makes the woman report to the fertility clinic first, especially as within the first 1-5 years of marriage there are varying forms of harassment, accusations and blame from relatives and in-laws.

Over half, 54.5% of the respondents knew that it takes a period of 1-2 years before a couple can be diagnosed of infertility, others believed that it is either after six months or more than 3 years. This finding was far greater than that obtained from the study conducted in Pakistan where 25.0% of the respondents knew this fact (Sumer, et.al,2011). Also, 51.5% of the respondents knew that infertility could either be primary or secondary and this was found to be higher than that in the studies carried out in Denmark (Padma, 2008) and Pakistan (Sumer, et.al,2011), where 47.4% and 40% of the respondents knew the types of infertility respectively. The main causes of infertility identified by the respondents were tubal blockage (72.5%), infection of the genital tract (47.5%), irregular menses (38.0%) and advanced feminine age (38.0%) which was similar to the findings of the study done in Pakistan (Sumer, et.al,2011), where 70% of the participants identified irregularity of menses, blocked tubes and genital tract infections as causes of infertility; as compared to the findings from the study carried out in Ghana (Padma,2008) where most of the respondents failed to identify reproductive tract infection as a cause of infertility. These findings are all indicative that some degree of education, counseling and enlightenment are carried out in the centre. This study revealed that males had better knowledge of infertility than females and this was found to be statistically significant ($p = 0.007$). This was not the case in the studies carried out in Pakistan (Sumer, et.al, 2011), where the females had better knowledge than the males ($p < 0.001$ and $p < 0.05$ respectively). This could be attributed to the fact that most of the male respondents who usually had better level of education, presented with their wives who had already been counseled on infertility and its possible causes, thus, they already had baseline information about infertility even before coming to the hospital unlike the cases of other female respondents who just presented without any baseline information.

In terms of education, those with secondary level of education were found to have better knowledge of infertility than those with primary level and this was statistically significant ($p=0.045$). This was in keeping with the study carried out in Pakistan (Sumer, et.al, 2011), where people with higher education had better knowledge as compared to the less educated ones ($p\text{-value} < 0.05$). This could be as a result of majority of the respondents having tertiary level of education thus any response would significantly affect the percentages. In this study, 16 of the 167 respondents (9.6%) with tertiary level of education had good knowledge of infertility as compared to the 5 of 25 respondents (20%) with secondary level of education that had good knowledge of infertility. It was also seen that in terms of occupation, a higher knowledge of infertility was seen among those who are professional than their counterparts and this was also seen to be statistically significant ($p = 0.034$). This finding is expected, and is as a result of their higher level of education and increased access to information.

Result revealed that 96.0% had heard about child adoption, as compared of the studies in Lagos and South-Eastern Nigeria (Omosun,et.al, 2011; Ezegwu, 2012; Adewunmi,et.al,2012) where 85.7%, 86.4% and 97.2% of the respondents were aware of child adoption. Result also shows that Thirty-eight percent of the respondents believed that child adoption means legally taking a child as one's own, while 46.5% believed that it means fostering a child and 16.0% believed it means buying a child which was similar to the finding in the study done in Lagos (Omosun,et.al,2011) where 59.3% knew the correct meaning of child adoption as a legal process of taking the child of another as one's own and 15.7% thought that only 27.3% of the respondents correctly knew the meaning of child adoption; while the study carried out in Ibadan Nigeria (Oladokun,et.al2012) showed that 95.2% knew what child adoption was.

The main source of information on child adoption was from friends and family (46.0%) health workers (37.0%), print and electronic media (29.0%) and place of worship (23.5%) unlike the study at Ibadan by Oladokun,et.al, (2012) where the main source of information in order of magnitude include health workers, print and electronic media and friends; and the Lagos study(Omosun,et.al,2011) where the major source of information was the media (40.4%), closely followed by friends (32.3%). Another study done in Lagos by Adewunmi, et.al, (2012) showed that the most common sources of knowledge were friends (47.8%) and the media (39.7%), while health care providers were the source of knowledge in 4.4% of respondents. The finding from this study reflects that child adoption is seen as fostering and that it was mainly discussed with family and friends. Although 30% knew that there were requirements for child adoption, Only 53.3% of the respondents correctly identified marriage certificate as compared to the 24.3% as found in the study in Lagos by Omosun, et.al, (2011) where 12.0% assumed that there was no maximum age and only 12.3% knew that the maximum age was 18years.

Overall, only 6.0% of the respondents had good knowledge of child adoption, while 26.5% and 67.5% of the respondents had fair and poor knowledge respectively unlike the finding in the study carried out in Sokoto, Nigeria by Nwobodo and Isah, (2011) where 74.8% of the respondents had good knowledge of infertility. This could be as a result of the fact that the study in Sokoto was carried out among only females (Nwobodo and Isah, 2011).

5. Conclusion

In view of the findings from this study, it has become imperative for reproductive health nurses to continue to keep abreast with the latest trend in infertility issues and adoption procedures, this will in turn aid the counselling process. It is also important for reproductive health nurses to educate couples and the public on the causes of infertility, the different management options amongst which child adoption is a favourable option and to assist them in making informed choices. Due to the associated health problems like depression, unhappiness, hypertension and social stigma associated with childlessness, the reproductive health nurse can through effective health education encourage couples to adopt children to make them have a feeling of parenthood and share in the joy of raising up children and thus reduce both the social and psychological traumas of the couple. The reproductive health nurses should health educate the couples on the concept of child adoption and its acceptance especially the youths that instead of aborting or throwing away babies in the gutter, bushes or latrines they should give them up for adoption as the lives of the young babies are too precious to be wasted.

6. Recommendations

Based on the findings of this study, it was recommended that there is need for reproductive health nurses to be trained and retrained in counselling of infertile couples on reproductive health issues such as infertility and child adoption, Infertile couples who wish to go for adoption should meet with adoption agencies and social workers for clarification of any doubt and for necessary information about child adoption.

Reproductive health nurses in the process of counselling couples should endeavor to take the message of child adoption as an alternative for infertile couples to the grass root for proper awareness so as to reduce the incidence of social and psychological trauma to couples with infertility. There should be workshops, seminars and talks in churches, meetings, town halls, social clubs concerning child adoption to clarify all doubts and misconception concerning child adoption. Lastly, efforts should be made by stakeholders and the government to make laws that will enable infertile couples to have easy access to adoption as this will prevent baby factories and child trafficking homes.

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