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Knowledge And Experiences Of Infertility Among Couples In Obio/Akpor Local Government Area, Rivers State, Nigeria

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ABSTRACT

Infertility remains a significant reproductive health challenge in Nigeria with high prevalence and psychosocial implications. This study examined Knowledge, sand Experiences of Infertility among Couples in Obio/Akpor Local Government Area, Rivers State, Nigeria. The descriptive research design was adopted for the study with a study population of two hundred and thirty-two thousand, six hundred and fifty-nine (232,659) persons in Obio/Akpor Local Government Area, Rivers State. A purposive sampling technique was used to select a sample size of 400 individuals which translates to 200 couples. The instrument for data collection in this study was a structured questionnaire with a reliability coefficient of 0.74. Data was analysed using percentage, mean, standard deviation and chi – square statistics. The result of the study showed that the respondents were between the age bracket of 40-46years (35.1%),33-39years (33.0%). Finding indicate that (55.6%) of the respondents had very good knowledge of infertility while (15.5%) of the respondents had poor knowledge of infertility and 73.7% of the respondents agreed to history of infertility among relatives, and 26.3% refute the history of infertility among relatives. Most respondents (66.4%) described relatives' infertility experiences as unfavorable. Approximately 41.2% of the respondents had experience infertility themselves, while 58.8% never experience infertility in their marriage; among those that had experienced infertility, 27.5% had been childless since marriage, 42.5% had achieved some level of fertility though below their desired number of children, while 30.0% had overcome infertility and expressed satisfaction with their current number of children. Education significantly predicted knowledge ($p<.05$) but family history showed no link with infertility experiences ($p>.05$). Public health officials along with other allied practitioners should through community mobilization, diagnosis and have situation analysis activities to assess the current state of infertility and prevalence in Obio/Akpor and offer needed medical care.

Keywords: infertility, knowledge, experiences, couples, Nigeria

INTRODUCTION

The desire to give birth, to nurture an infant and to experience parenthood is one of the primal need for human beings. Infertility remains one of the most significant but often overlooked reproductive health challenges worldwide. Infertility is defined as the inability to conceive after 1 year of unprotected regular sexual intercourse (Benksim *et al.,* 2018). Basically, infertility has primary and secondary stages. Benksim *et al., (2018*) observed that, Couples with primary infertility have never conceived and couples with secondary infertility may have conceived before but are unable to conceive again. 80% couples achieve conception within one year of having regular intercourse with adequate frequency. 10% couples will become pregnant and 100% remain infertile by the end of second year. An estimated rate of infertility among 47 developing countries showed that 187million couples were infertile in which 18 million couples had primary infertility and the remaining 169 million couples had secondary infertility (Benksim *et al.,* 2018).

Approximately, 70 to 80 million couples affected by infertility globally based on current world population estimates (World Health Organization [WHO], 2022). Infertility rates vary across world regions, being lowest in developed countries at around 5 to 10% and highest in parts of South Asia and Sub-Saharan Africa at over 30% of couples (Chandra et al., 2013; Ombelet, 2011). In Nigeria, infertility prevalence approximates 30%, which exceeds the 15% threshold for designating it a major public health issue (Okonofua, 2003). High rates of sexually transmitted infections (STIs), unsafe abortions and use of unregulated contraceptives underlie the problem in Nigeria (Okonofua, 2003; Inhorn & Patrizio, 2015;). Cultural premium placed on fertility and lack of accessible quality care especially in rural areas further compounds the burden (Atibinye et al., 2015).

Infertility stigmatizes and socially isolates women, disrupts marriages and personal wellbeing, elicits domestic violence and low self-worth (Ombelet, 2011). While infertility remains prevalent in Nigeria, the level of knowledge among people can easily make people being affected credit their conditions to some foreign course. Knowledge can be defined as awareness of facts or as practical skills, and may also refer to familiarity with objects or situations. It is an important attribute for human existence. While people may demonstrate different levels of knowledge on different matters, it is expected that couples demonstrate significant levels on knowledge when it comes to their reproductive health and sexuality. Studies have shown low levels of knowledge on infertility (Dattijo *et al.,* 2016). However, Infertility poses not only as medical problem, but also a social stigma. Several studies have demonstrated the notorious effect of infertility from social point of views. There is no formal education in most parts of the world regarding infertility (Amiri *et al.,* 2016).

Statement of the Problem

Many couples may be experiencing difficulty in conceiving and carrying a child. Infertility may be perceived as a tragedy in the lives of many women in developing countries as it is considered as the responsibility of the females to give birth to their own children. Women without children may be stigmatized and isolated from the society. Childlessness leads to an increased incidence of domestic violence in female partner and remarriage in male partner. The desire for children is strong in many couples. If a couple did not achieve pregnancy or produce a living child as expected, the man and woman often experience psychological distress. They may feel unlovable or unappealing to their mates.

The problem of infertility might be compounded by the fact that the health sector in developing countries is underdeveloped, and mainly targets basic primary health care. As a result, a lot of

attention is given to the reduction of maternal and infant mortality, and the promotion of family planning usage. To an extent the reproductive health strategy in Nigeria might be targeted at reducing the high fertility rate and not reducing the prevalence or impact of infertility. Most times infertility has been a source of distress for couples as societal norms and women most time might have been bearing the brunt of these societal perceptions in most of the cases. Psychologically, the infertile woman exhibits significantly higher psychopathology in the form of tension, hostility, anxiety, depression, self-blame and suicidal ideation. Thus, the need to assess the knowledge, and experiences of infertility among couples in Obio/Akpor, Rivers State, Nigeria.

Research questions

The following research questions guided the study:

1. What is the level of knowledge of couples on infertility in Obio/Akpor local government area of Rivers State?
2. What are the experiences of infertility among couples with respect to family history in Obio/Akpor local government area of Rivers state?
3. What is the relationship between educational levels of couples and knowledge of infertility in Obio/Akpor local government area of Rivers state?
4. What is the relationship between family history and experiences of infertility among couples in Obio/Akpor local government area of Rivers state?

Hypotheses

The following null hypotheses postulated were tested at 0.05 level of significance:

1.There is no statistically significant relationship between educational levels of couples and knowledge of infertility in Obio/Akpor local government area of Rivers state.

2. There is no statistically significant relationship between family history and experiences of infertility among couples in Obio/Akpor local government area of Rivers state.

METHODS

Participants and recruitment

This community-based descriptive cross-sectional study was conducted in Obio/Akpor Local Government Area (LGA) of Rivers State in southern Nigeria. The study population were married couples resident in Obio/Akpor LGA who had lived together for at least 12 months and intended having children. A sample size of 384 couples was determined using the Krejcie and Morgan (1970) statistical convention at 95% confidence interval. This was rounded up to 400 couples or 200 each of husbands and wives. Multi-stage sampling was utilized. First, four electoral wards were randomly selected from the ten wards in Obio/Akpor as clusters. These were Rumuodomaya, Rumuigbo, Choba and Rumuolumeni wards. Fifty couples were then purposively recruited from each ward based on study eligibility criteria and willingness to voluntarily participate after informed consent.

Instrument and Measures

The instrument for data collection in this study was a structured questionnaire. The questionnaire consisted of two sections A and B. Section A focused on the socio-demographic characteristics information of the respondents such as age, religion, marital status, education and occupation while Section B was focus on questions regarding knowledge and experiences relating to infertility. Knowledge areas included meaning of infertility, gender susceptibility and causes. Experiences captured included infertility among relatives and couples' experience.

The instrument was Validated by three experts from the fields of Health Education and Measurement and Evaluation. A reliability coefficient of 0.79 was obtained after subjecting the instrument to reliability test using Cronbach alpha. The researcher administered the questionnaires to the respondents through personal contact. This was to ensure that the questionnaires were properly served to the respondents. Completed questionnaires were analysed with the aid of the Statistical Product for Service Solution (SPSS V-25) using frequencies and percentages. Means and standard deviations described Likert scale perception items. Chi-square test investigated relationships between educational status and infertility knowledge and between family history and infertility experiences at 95% confidence level.

RESULTS

The results of the study are presented below

Table 1: Sociodemographic Characteristics of Respondents

Variables	Description (n=194)	Freq	%
Age in years	≤ 25 years	10	5.2
	26-32 years	34	17.5
	33-39 years	64	33.0
	40-46 years	68	35.1
	≥ 47 years	18	9.3
Religion	Christianity	98	50.5
	Islam	30	15.5
	Traditional worship	66	34.0
Education	Cannot read and write	0	0.0
	Can read/write but no formal education	8	4.1
	Primary school only	30	15.5
	Up to secondary school	80	41.2
	Graduate	76	39.2
Duration of married life	1-3 years	6	3.1
	4-6years	34	17.5
	7-9years	82	42.3
	≥10years	72	37.1

Source: Field Survey, 2023

Table1 presents the summary of sociodemographic characteristic of the respondents. The result showed that out of two hundred (200) respondents that enrolled for the study, one hundred and ninety-four (194) completely filled their questionnaire, giving response rate of ninety-seven percent (97%). It was observed that more than one-third (35.1%) of the respondents were between ages 40-46 years, about one-third (33.0%) were between ages 33-39 years, less than one-fifth (17.5%) were between ages 26-32 years, while a fraction (5.2%) of the respondents were between ages 25 years or less and a fraction (9.3%) were between ages 47 years and above. On religious affiliation, Christians constituted half (50.5%) of the respondents, Islam accounted for less than less than one-fifth (15.5%), and Traditional worshipers were (34.0%). Majority (41.2%) of the respondents had attained secondary education, more than one-third (39.2%) were graduates, less than one-fifth (15.5%) had only primary education, while a fraction (4.1%) can read/write but had no formal education. The result also showed that more than two-fifth (42.3%) had been married for 7-9years, more than one-third (37.1%) had been for 10years and above, less than one-fifth (17.5%) had been married for 4-6years, and a fraction (3.1%) were only married for 1-3 years.

Figure 1: Level of Knowledge of Infertility among Couples

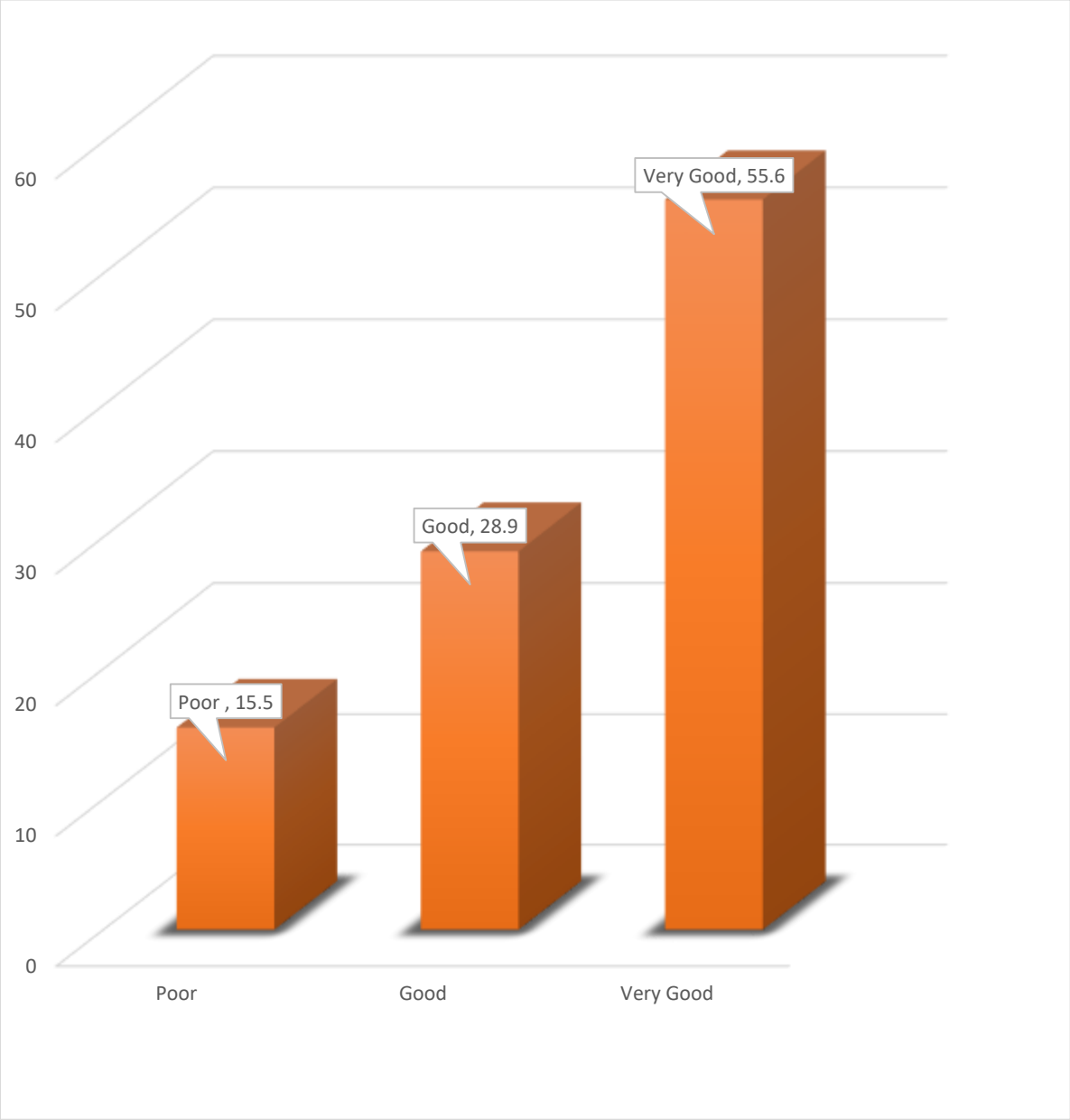

Figure 1 presents the summary on level of knowledge of infertility among couples in Obio-Akpor local government area of Rivers State. The result shows that more than half (55.6%) of the respondents had very good knowledge of infertility, more than one-quarter (28.9%) had good knowledge of infertility, and less than one-fifth (15.5%) of the respondents had poor knowledge of infertility in the study area.

Table 2: Infertility Experiences among Couples and family history

Statements	Description	Freq	%
Has anyone in your family experienced infertility	Yes	143	73.7
	No	51	26.3
If yes to question 28, how will you describe the experience of your relative?	Unfavourable	95	66.4
	Fair	10	7.0
	Excellent	2	1.4
	Indifference	36	25.2
Did you experience infertility at any point in your marriage?	Yes	80	41.2
	No	114	58.8
If yes to the question (31) above, are you currently infertile?	Yes, (haven't been able to have a child since marriage)	22	27.5
	Yes, (haven't been able to achieve the desired number of children)	34	42.5
	No (we now have kids and are satisfied with the number	24	30.0

Table 2 presents the experiences of infertility couples with respect to family history in Obio-Akpor local government area of Rivers State. The result shows that nearly three-quarter (73.7%) of the respondents agreed to history of infertility among relatives, and more than one-quarter (26.3%) refute the history of infertility among relatives; about two-third (66.4%) of the respondents with history of infertility among relatives described their experience as unfavourable, one-quarter (25.2%) were indifferent, while a fraction described their expereinces as fair (7.0%) and excellent (1.4%), respectively. The result also shows that more than two-fifth (41.2%) of the respondents had experience infertility themselves, while more than half (58.8%) never experience infertility in their marriage; among those that had experienced infertility, more than one-quarter (27.5%) had been childless since marriage, more than two-third (42.5%) had achieved some level of fertility though below their desired number of children, while more than one-quarter (30.0%) had overcome infertility and expressed satisfaction with their current number of children.

Table 3: Relationship between educational level and knowledge of infertility

Educational Level	Knowledge of infertility							
	Poor		Good		Very Good		Total	
	Freq	%	Freq	%	Freq	%	Freq	%
Can read/write but had no formal education	12	15.8	26	34.2	38	50.0	76	39.2
Primary education	12	20.0	26	32.5	42	52.5	80	41.2
Secondary education	6	15.0	2	6.7	22	73.3	30	15.5
Tertiary education	0	0.0	2	25.0	6	75.0	8	4.1
Total	30	15.5	56	28.9	108	55.7	194	100.0

Table 3 presents the relationship between educational levels of couples and knowledge of infertility in Obio-Akpor local government area of Rivers State. The result reveals that half (50.0%) of the respondents who can read/write with no formal education had very good knowledge of infertility, more than half (52.5%) of the respondents with primary education had very good knowledge of infertility, almost three-quarter (73.3%) of the respondents with secondary education had very good knowledge of infertility, and three-quarter (75.0%) of the respondents with tertiary education had very good knowledge of infertility. The result also reveals that (15.8%) of respondents who can read/write with no formal education had poor

knowledge of infertility, however, respondents with primary education (20.0%), those with secondary education (15.0%), and none of those respondents with tertiary education had poor knowledge of infertility.

Table 4: Relationship between Family History and Experiences of Infertility

Family History	Experince Infertility					
	No		Yes		Total	
	Freq	%	Freq	%	Freq	%
No	33	64.7	18	35.3	51	26.3
Yes	81	56.6	62	43.4	143	73.7
	114	58.8	80	41.2	194	100.0

Table 4 presents the relationship between family history and experiences of infertility among couples in Obio-Akpor local government area of Rivers State. The result as presented above shows that almost two-third (64.7%) of the respondents without family history of infertility did not experience infertility, while more than one-third (35.3%) experinced infertility in their marriage. Similarly, more than half (56.6%) of the respondents with family history of infertility did not experince infertility, while more than two-fifth (43.4%) experince infertility in their marriage.

Table 5: Chi-Square Relationship between Educational Level and Knowledge of Infertility

	Value	Df	Asymptotic Significance (2-sided)	Decision
Pearson Chi-Square	95.050[a]	33	0.000	Significant
Likelihood Ratio	78.111	33	0.000	
Linear-by-Linear Association	1.954	1	0.162	
N of Valid Cases	194			

a. 35 cells (72.9%) have expected count less than 5. The minimum expected count is .08.

Table 5 presents the summary of Pearson Chi-Square on relationship between educational level and knowledge of infertility among couples in Obio-Akpor local government area of Rivers State. The result shows that there is statistically significant relationship between educational levels of couples and knowledge of infertility (χ^2= 95.050; p= 0.000) in Obio-Akpor local government area of Rivers State. Therefore, the null hypothesis which states that there is no statistically significant relationship between educational levels of couples and their knowledge of infertility was rejected at 0.05 alpha level of significance.

Table 6: Chi-Square Relationship between Family History and Experience of Infertility

	Value	Df	Asymptotic Significance (2-sided)	Decision
Pearson Chi-Square	1.008[a]	1	0.315	Not significant
Continuity Correction[b]	0.703	1	0.402	
Likelihood Ratio	1.020	1	0.313	
Linear-by-Linear Association	1.003	1	0.317	
N of Valid Cases	194			

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 21.03.

Table 6 presents the summary of Pearson Chi-Square on relationship between family history and experience of infertility among couples in Obio-Akpor local government area of Rivers State. The result shows that there is no statistically significant relationship between family history and experience of infertility (χ^2= 1.008; p= 0.315) in Obio-Akpor local government area of Rivers State. Thus, the null hypothesis which states that there is no statistically significant relationship between family history of couples and their experience of infertility was accepted at 0.05 alpha level of significance.

DISCUSSION

Table 1 shows that majority of the respondents were within the age of 33- 46 years while few were within 26years and 47years and above. Christians constituted half of the respondents, Islam accounted for less than less than one-fifth and Traditional worshipers were (34.0%). Majority of the respondents were educated at different levels from primary, secondary to Tertiary education respectively, while a fraction can read/write but had no formal education. The result also showed that about half of the respondents had been married for 7-9years, more than one-third had been for 10years and above, less than one-fifth had been married for 4-6years, and a fraction were only married for 1-3 years.

The findings on figure 1 shows that majority the respondents had very good knowledge of infertility, while a few number of the respondents had poor knowledge of infertility in the study area. This result is not surprise since infertility is a reproductive health issue are developed over time and as such couple will not be ignorance about it. Also being a health challenge couples might have been visiting the clinic for consultation. The finding of this study disagreed with the Studies of (Dattijo *et al.,* 2016; Ajayi *et al.,* 2019) which showed more that most of the study population has low level of knowledge on infertility and also the study Atijosan *et al.,* (2019) which revealed that majority of the respondents (56%) have poor knowledge. Furthermore, finding of this study is at variance with study of Odek *et al.,* (2014) which showed that respondents have low level of knowledge on infertility. This differences found between the previous studies and the present one might be due to the difference in the concepts studied.

The result on table 2 shows that there was history of infertility among majority of respondents' relatives and other respondents refute the history of infertility among relatives; while respondents with history of infertility among relatives described their experience as unfavourable and indifferent.Others were described their expereinces as fair and excellent respectively. The result also shows that a few number of the respondents had experience infertility themselves and had been childless since marriage, others had achieved some level of fertility though below their desired number of children. Also majority of respondents who never experience infertility in their marriage expressed satisfaction with their current number of children The finding of this study agrees with that of Bista (2015) who found that infertile women experienced risk of being isolated in social activities, threatened divorce and remarry by husband. The finding also corroborates with the report of Simionescu et al., (2021) which affirmed that those dealing with infertility will face a lot of challenges, they noted that infertile couples are subject to greater stress and have a greater risk of developing psychological disorders compared with normal, healthy couples. These discomfort is usually a result of social pressure as acknowledged by Greil et al., (2010).

The result on table 3 shows that knowledge of infertility among respondents varies based on their level of education.Thus, respondents without formal education has both good and poor knowledge , majority of those with with primary education had very good knowledge and few has poor knowledge; also majority of respondents with secondary education had very good knowledge aganst few with poor knowledge . While respondents with tertiary education all had very good knowledge of infertility The result of this study is not supprising because it is expected that those respondents with higher education could better articulate biomedical concepts of infertility, This finding of this study is in consonance with that of Akpor *et al.,* (2016) whose evidence showed that majority of the respondents has a good knowledge on the causes and preventive measures of infertility. The study is at variance with study of Atijosan *et al.,* (2019) which revealed that 56% of the respondents had poor knowledge and just 44% of the respondents had good knowledge of infertility.

Table 4 findings revealed that more than fifty percent of the respondents with and without family history of infertility did not experience infertility, while few respondents with and without family history had experienced infertility respectively. This result is not surpprising because infertility is not an hereditary issue but health challenge. Though relatives' infertility histories were fairly common, these did not necessarily translate into higher personal susceptibility. This agrees with evidence that heredity and family histories play negligible roles in sporadic infertility (Tennessee Fertility Institute, 2016).

The study findings on table 5 shows that there is statistically significant relationship between educational levels of couples and knowledge of infertility (χ^2= 95.050; p= 0.000). This implies that the more educated the couples the higher their knowledge about infertility. This agreed with the study of Cai et al. (2011) who

found a relationship between education and infertility prevalence. This study finding was also in line with Oluwole et,al. (2021) who study revealed that, education were statistically significant with knowledge of infertility ($p<0.05$). This align with that of Inhorn (2015) who finding shows that Couples with higher education levels might have better access to reproductive health services, including fertility treatments and counseling, which could potentially improve their chances of addressing infertility issues.

The result on table 6 shows that there is no statistically significant relationship between family history and experience of infertility ($\chi^2= 1.008$; $p= 0.31$) This implies that family history of infertility does not always predict the experience of infertility. This result is in line with the finding of Fledderjohann, (2012) which says that respondents had personally experienced some infertility in their marriages.

CONCLUSIONS AND RECOMMENDATIONS

That respondents have good knowledge about infertility which varies based on their educational status. That respondents experienced infertility in their marriage. There had been family history of infertility experiences among respondents but it does not translate into higher personal susceptibility. That were no statistically significant relationship between family history and experience of infertility.

Recommendations

Based on the findings of this study the following recommendation are made;

1. Social health workers, counsellors, and religious people should through counselling offer help to individuals dealing with infertility to help them accept the realities, provide mutual support between couples and enlightenment on understanding of each other's' limitations while with dealing with infertility as couples.
2. Public sensitization campaigns should be a regular routine of the local health authorities to help shape the social context surrounding infertility, thus the need for continued progress in the development of a distinctly sociological approach to infertility.
3. Public health officials along with other allied practitioners should through community mobilization, diagnosis and have situation analysis activities to assess the current state of infertility and prevalence in Obio/Akpor and offer needed medical care.

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