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CONCEPT AND FACTORS ASSOCIATED WITH INFERTILITY AMONG MARRIED COUPLES IN OBONNOMA COMMUNITY, AKUKU-TORU LOCAL GOVERNMENT AREA, RIVERS STATE, NIGERIA

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ABSTRACT: *The study was aimed at determining the concept and factors associated with infertility among married couples in Obonnoma community of Rivers State. A descriptive, cross-sectional study conducted at the Family Planning Clinic of the community's health center between July and December, 2017, among 76 persons, out of 96 married couples that attended the facility. The mean score for knowledge of infertility showed that 39(51.32%) respondents had good knowledge, while 37(48.68%) had poor knowledge. Also, 41(53.95%) had positive attitude towards infertility while 35(46.05%) had negative attitude. Semen abnormalities, assumed spiritual forces, unknown cause, undescended testes, erectile dysfunction, menstrual disorders, previous reproductive tract infections/STIs, age, improper/poor sexual practices and fallopian tube dysfunction were the main factors indicated to be associated with infertility. Infertility is a common reproductive problem, with about one-fifth of the world population affected. There is still low poor knowledge about the true factors associated with it, hence, a lot of misconceptions, such as beliefs that IUCDs and supernatural powers can cause infertility, thus, most affected persons seek treatment from faith or traditional healers. Alternative medicine remains a popular option for couples, when they are unsatisfied with orthodox medicine. There is also poor knowledge about treatment options available, with cultural and religious beliefs masking most of such, resulting in reduced acceptability of assisted reproductive technologies. Vigorous enlightenment, especially, of rural dwellers, is pertinent and will produce better results of acceptability and utilization of available options.*

KEYWORDS: infertility, knowledge, attitude, belief, orthodox

INTRODUCTION

Infertility is the inability to conceive. It is the inability of a couple to achieve conception, after having a regular, unprotected sex (Sohrabvand & Jafarabadi, 2005), and without contraception (Beers *et al*., 2003) for about 12 months. Infertility could be primary (if conception has never occurred) or secondary (if conception had occurred, but is no longer achievable). Based on the etiopathogenesis (cause and subsequent development of an abnormal condition or disease),

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infertility can be grouped into physiological dysfunctions, preventable causes and unexplained/idiopathic issues that can be further subdivided into anatomic, genetic, endocrinologic and immunologic (Daar & Merali, as cited in Vayena *et al.*, 2002).

The condition is a disease of reproduction that affects both sexes at an almost equal proportion (Beers *et al*., 2003; Callahan & Caughey, 2008). It is reported that about one-third of infertility disorders originate from the either the sperm, ova, ovulation, or the uterine ducts, while a small percentage of the cases are due to problems that emanate from the cervical mucus or unidentified factors (Callahan & Caughey, 2008). Owing to the aforementioned, the diagnosis of infertility problems is usually thorough, multi-disciplinary and often requires the evaluation of both partners.

Infertility is a global phenomenon that affects approximately 168 million people worldwide (Neelofar & Tazeen, 2006). In the United States of America (USA), approximately 5 million people are having fertility challenges, while 14% incidence is estimated in Europe. Majority of those who suffer from infertility live in developing countries, like Nigeria. A comparative report by the World Health Organization-Demographic Health Survey (WHO-DHS) states that more than 186 million ever-married women in developing countries were infertile (Rutstein, 2004), a ratio of 1:4 in ever-married couples of reproductive age.

In Nigeria, the 1990 National Demographic and Health Survey (NDHS) revealed that 4.3% of currently married women within the age of 25-49 never had a child. This is similar to the NDHS report for 1999, which stands at 4.2%. Recent figures by the World Health Organization (WHO) estimates show that about 10% of couples are being faced with some form of infertility problem. There is, however, a geographical dependence to the incidence of infertility (Boivin *et al*., 2007).

The percentage of women in their 40s who have never given birth provides an indicator to the level of primary infertility, which the 2003 NDHS report estimates as <3% among married women aged 45-49 years. By contrast, however, a survey of women of reproductive age in Ile-Ife, southwest Nigeria revealed that about 20% of women suffer from secondary infertility (Snow *et al*., 1995). Fidler and Bernstein (1999) also argue that universally, the prevalence of infertility in women with no child rises significantly with advancing age.

Considering that childbearing and the raising of children are important features in every human's life, and are associated with the ultimate goals of completeness, happiness and family integration, the challenge its absence pose on couples cannot be ignored. This is also associated with the fact that some societal norms and perceived religious dictums equate infertility with failure on a personal, inter-personal, social or emotional level. Women mainly bear the brunt of these societal perceptions in most of the cases (Vanbalen & Trimboskemper, 2009), with many of them exhibiting significantly higher psychopathologic tension, hostility, depression, anxiety, self-blame and suicidal thoughts (Fido, 2004). Studies have shown a poor knowledge of infertility among couples (Fido, 2004), while most persons do not want to be associated infertility or labeled to be

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infertile (Ali *et al*., 2011), because of the likely stigma attached to it (Okonofua *et al*., 1997). However, the fact remains that infertility occurs and still persist in every human habitat of the world. This study, thus, ascertained the factors associated with infertility among couples of child-bearing age in Obonnoma community, in Akuku-toru local government area of Rivers state, Nigeria, with a view to acquainting the indigenes and those of neighbouring localities of the factors that pose a risk to them being infertile. The study will serve as a template for which future studies can be done, while providing a document upon which the government and other policy makers can act.

METHODOLOGY

This is a cross-sectional, descriptive study, of 76 married couples (drawn from 96 couples using the Yaro-Yamene formula) of child-bearing age, 18-49 years, in Obonnoma community, Akuku-toru local government area of Rivers state. The participants are patients that presented at the Family Planning Clinic of the Primary Health Center in the community. The study was conducted for 6 months (July-December, 2016). A four-part, semi-structured, interviewer-assisted questionnaire was administered to the participants, while the data generated was analyzed using descriptive and inferential statistics, and Chi-square for hypothesis testing, with the results presented as frequencies and percentages, in tables and charts. Only couples that had been married for at least 12 months, residing in the community for at least one year, without any other medical disability and are in the range of the prescribed age, participated in the study. A letter of approval for the study was obtained from the Medical Officer of Health (MOH) for the area, while letters of permission and consent were obtained from the Head chief of the community, the Chairman of the Community Development Committee and the participants respectively.

RESULTS

Table 1: Socio-demographic data. **n=76**

Variable	Frequency	Percentage (%)
Sex		
Male	19	25
Female	57	75
Ages		
<20 years	4	5.26
20-29 years	14	18.42
30-39 years	29	38.17
40-49 years	18	23.68
≥50 years	11	14.47
Religion		
Christianity	53	69.74
Muslim	16	21.05

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Traditional religion	7	9.21
Others	-	-
Educational status		
No formal education	8	10.53
Primary	22	28.95
Secondary	30	39.47
Tertiary	19	21.05
Occupation		
Business men/women	31	40.79
Civil servants	5	6.59
Students	7	9.21
Housewives	11	14.47
Fishing	20	26.32
Farming	2	2.63
Number of pregnancies		
1	10	13.16
2 and above	-	-
None	66	86.84
Duration of infertility		
1-3 years	10	13.16
4-6 years	26	34.21
≥7 years	40	52.63
Ethnicity		
Igbo	13	17.11
Kalabari	25	32.89
Ikwerre	10	13.16
Ogoni	10	13.16
Ijaw	9	11.84
Hausa	3	3.95
Yoruba	6	7.89

In table 1 above, the total respondents, were 19(25%) males and 57(75%) females; 4(5.26%) are below 20 years, 14(18.24%) between 20-29 years, 29(38.17%) between 30-39 years, 18(23.68%) between 40-49 years, while 11(14.47%) are 50 years and above. They were mainly Christians, 53(69.74%), with 8(10.53%) having no formal education, while 30(39.47%) have secondary education. 31(40.79%) are business men/women, followed by fisher men/women 20(26.32%). On the basis of parity, 66(86.84%) are nulliparous (never been pregnant).

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Table 2: Knowledge of infertility (n=76)

Knowledge of infertility	Good knowledge	Poor knowledge
Knowledge of its meaning	53(69.74%)	23(30.26%)
Knowledge of the types	43(56.58%)	33(43.43%)
Knowledge of who it affects	23(30.26%)	53(69.74%)
Knowledge of its causes	35(46.05%)	41(53.95%)
Mean score	39(51.32%)	37(48.68%)

Table 2 shows that 39(51.32%) of the participants in the study had good knowledge about infertility, while 37(48.68%) had poor knowledge.

Table 3; Mean score of attitude towards infertility (n=76)

Variable	**Frequency**	**Percentage (%)**
Positive attitude	41	53.95
Negative attitude	35	46.05

Table 3 shows that 41(53.95%) of participants had positive attitude while 35(46.05%) had negative attitude.

Table 4: Factors associated with infertility (n=76)

Factors associated with infertility	**Frequency**	**Percentage (%)**
Smoking	29	38.17
Emotional instability during sexual intercourse	30	39.47
Some medical diseases. e.g. diabetes mellitus.	30	39.47
Kind of occupation	34	44.74
Ovarian failure	39	51.32
Ignorance of fertile periods	42	55.26
Fallopian tube dysfunction	47	61.84
Improper/poor sexual practices	47	61.84
Age	50	65.79
Previous reproductive tract infection/STI	56	73.68
Menstrual disorders	57	75
Erectile dysfunction	58	76.32
Undescended testes	59	77.63
Unknown cause	59	77.63
Assumed spiritual forces	60	78.95
Semen abnormalities	61	80.26
Others (specify)	-	-

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Table 4 above, shows that the main factor associated with infertility is semen abnormalities 61(80.26%), while the least is smoking 29(38.17%).

Hypothesis

The hypothesis in this study showed that there is no significant relationship between married couples' knowledge and attitude towards infertility in Obonnoma community of Rivers state.

DISCUSSION

Findings from this study showed that 39(51.32%) of the respondents had good knowledge about infertility, while 17(48.68%) had poor knowledge. This result may be due to the fact that majority of the respondents have a formal level of education and as such, the knowledge level is influenced by their level of education. This was seen in their response to the meaning of infertility as majority 53(69.74%) correctly defined infertility. This is however, contrary to the finding of Ali, *et al*., (2011) that only 25% of the participants identified that infertility is diagnosed usually after one to two years of unprotected sex among couples. 40% correctly identified both male and female are equally responsible, 55% agreed that both male and female required medical care, while the rest of them either chose a male or female.

Findings in this study showed that 41(53.95%) had positive attitude towards infertility, while 35(46.05%) had negative attitude. This finding may have been obviously influenced by the level of education or exposure of the respondents and the fact that discrimination on the issues of infertility among couples is been discouraged in the society, as is seen in the response on who is to blame, where majority of the respondents 48(63.16%) disagreed that the women are to be blamed solely for infertility. Also, the respondents believed that both partners are to seek treatment and that if properly managed, the infertility can be cured. This also agrees with the finding of Ali, *et al*., (2011) who found out that 45% of people did not want to label infertility as disease; while 94% of them believed that the couple should seek treatment for it.

Findings in this study shows that the major factors associated with infertility as indicated by respondents are semen abnormalities, assumed spiritual forces, unknown cause and erectile/fallopian tube dysfunction. This is similar to the findings of Roupe, *et al*., (2009) which found that 27.4% indicated fallopian tubes dysfunction and 24.5% infertility of unknown cause.

Summary

The study was conducted to determine the factors associated with infertility among married couples in Obonnoma community of Rivers state. Seventy six (76) persons participated, out of 96 married couples that visited the Family Planning Clinic of the community's health center between July and December, 2016. Findings in the study showed a mean score of 39(51.32%) of the respondents had a good knowledge of the concept of infertility, while 37(48.68%) had poor

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knowledge. 41(53.95%) had a positive attitude towards infertility while 35(46.05%) had a negative attitude. The major factors associated with infertility, as indicated by the respondents are semen abnormalities, assumed spiritual forces, unknown cause, undescended testes, erectile dysfunction, menstrual disorders, previous reproductive tract infections/STIs, age, improper/poor sexual practices and fallopian tube dysfunction.

CONCLUSION

Infertility is a fairly common problem that affects approximately one-fifth of the world population. The researcher discovered that the knowledge about infertility is generally limited amongst the participants. There are a lot of misconceptions, such as beliefs that IUCDs and OPCs can cause infertility. People still believe in supernatural powers as the cause of infertility, and thus, seek treatment from faith healers. Alternative medicine is also a popular option for couples, in case they are not satisfied with orthodox medicine. Knowledge about treatment options is also lacking and its cultural and religious perspective is unclear, which has resulted in reduced acceptability of assisted reproductive technologies.

Recommendations

Adequate knowledge is required so that infertile couples can seek medical care in a timely manner, and prevalent myths and misconceptions can be corrected. On this premise, the following recommendations are made:

- Government should ensure that information is made readily available to the general population through the media via shows that will increase awareness on the treatment of infertility.
- All health centers should be well equipped with modern facilities to enable health care providers, Public Health nurses inclusive, and other professionals provide quality goal oriented care.
- Public Health Nurses should be trained and retrained, to update their knowledge and skill in caring for infertile couples.
- Cost of treating infertility should be subsidized, in order to encourage couples in course of care, instead of frustrating them.

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