

## Contraception and Infertility among Couples in Sagamu Local Government Area, South-West, Nigeria

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### Abstract

**Background:** Most African families are not willing to embrace contraception because it is believed to be a major risk factor for infertility. This results in large family-size and poses grave danger to maternal, child and family health.

**Objective:** To determine the association between contraception and infertility among married individuals in Sagamu local government area, South-West, Nigeria.

**Methods:** A descriptive cross-sectional study was carried out among 500 married men and women living in Sagamu Local Government Area, South-West, Nigeria between April 22<sup>nd</sup> and 13<sup>th</sup> May, 2013 using the multi-stage sampling technique. Data was collected using validated semi-structured interviewer-administered questionnaires. Data was analysed using the Statistical Package for Social Sciences (SPSS) version 17.0. Frequencies, means and relevant statistics (Chi-square) were calculated and presented as tables.

**Results:** There were 26% male and 74% female respondents. About 17% of the respondents met the criteria for diagnosis of infertility. Respondents were aged between 19 and 60 years, with a mean of 39.7±9.9 years. 74.6% of the total respondents believe that certain methods of contraception can cause infertility. Among respondents with infertility, 12.2% have a history of using a particular method of contraception. Of infertile persons that had been on a particular kind of contraceptive, 11.3%, 15.2%, 5.7%, 18.6%, 0%, 9.1% had history of use of oral contraceptive pills, injectable, intrauterine contraceptive device, condoms, Norplant and other traditional methods of contraception respectively. However, none of these methods of contraception had significant association ( $p>0.05$ ) with infertility in this study.

**Conclusion:** There was no association between contraception and infertility among couples in Sagamu. Contraception being a major cause of infertility among couples in Sub-Saharan Africa should be demystified. Public health campaign should be made against this misconception so that contraception is embraced and family health is improved upon.

**Key Words:** Association, Contraception, Infertility

### Introduction:

Infertility is a major source of concern in many families all over the world. The World Health Organization defines infertility as the inability of couples of reproductive age to impregnate or conceive

and carry a pregnancy to live birth within two years of exposure to the risk of pregnancy<sup>1</sup>. Most African families are not willing to embrace contraception because it is believed to be a major risk factor for

infertility. This results in large family-size and poses grave danger to maternal, child and family health.

In a study carried out in Nigeria, it was discovered that more than 50% of participants thought that previous use of oral contraceptive pill (OCP) and intra-uterine contraception device (IUCD), leads to infertility. This was a common belief in this region, regardless of the level of socio-economic status and education, that contraceptives themselves cause infertility. Many people believe that the use of exogenous hormones will eventually disrupt the body's natural functions, and lead to infertility. It is unclear where these views developed. However, this may be associated with the belief that one has been 'allotted' a certain number of children, and one can 'use them up' through abortions and contraceptive use, and person find oneself infertile when he decides to have children.<sup>2</sup>

Family planning protects women from unwanted pregnancies, thereby saving their life from high risk pregnancies or unsafe abortions. If all women could avoid high-risk pregnancies, the total number of maternal deaths could fall by one-quarter. Also, other benefits accruing from family planning methods include prevention from cancers, sexually transmitted infections and HIV/AIDS.<sup>3</sup> A woman's health and well-being and those of her family are linked with her first child or how she spaces the birth of her children.<sup>4</sup> Child-spacing is an essential ingredient in child survival. There is risk of malnutrition, inadequate education and protection of these children, increased incidence of street children and social vices in the community.

### **Burden of the Problem:**

Infertility worldwide remains a major gynaecological problem with devastating psychosocial effect on the couple.<sup>5</sup> Infertility is today a palpable problem in many families in Nigeria. It is a common reason for routine gynaecological consultations in many out patients clinics as well Ogun State University Teaching Hospital, Sagamu.<sup>6</sup> Its negative impact on the peace and stability of the affected families is becoming conspicuously increasing every day. Hence, any perceived risk factor

especially, the use of contraceptive is rebuffed by these couples, thereby, resulting in large family size, reduced child survival, sub-optimal maternal and family health.

However, more than 60% of women with unplanned pregnancies were not using contraception.<sup>7</sup> The consequences of low contraceptive use among Nigerian women leads to an estimated 1.5 million unplanned pregnancies every year, with about half of these resulting in elective abortions. Serious maternal complications from unsafe abortions account for 20%–40% of about 60,000 maternal deaths occurring each year in Nigeria.<sup>8</sup>

### **Relevance to Public Health:**

Worldwide, the prevalence of infertility is said to be 5-15%<sup>9</sup>. A review of population-based surveys estimated the international prevalence of infertility to be 9% on the average<sup>10</sup>. In some parts of Nigeria, community based studies have reported rates of infertility as high as 20%<sup>9</sup> and 45%<sup>11</sup>. The prevalence of infertility in Sagamu, South-West, Nigeria has been reported to be 14.8%.<sup>12</sup>

Infertility is stigmatized reproductive health morbidity and a major public health issue in Nigeria and many other under developed and developing nations. This is a result of its high prevalence and especially because of its serious social implications as the African society places a passionate premium on procreation in any family setting.<sup>13</sup>

In a bid to avoid infertility, most couples avoid contraception because they opine that it is a risk factor. Hence, majority of them procreate endlessly and thereby frustrate existing health policies such as child survival strategies and improved maternal health that advocating contraception.

### **Justification for the Study:**

Over the years, certain methods of contraception have been linked with infertility and these have discouraged many from engaging in them. In this study, we tried to find out if this 'so called' association between contraception and infertility is significant enough to discourage people from practising a particular method of contraception.

## Objective of the Study:

The objective of this study is to determine the association between contraception and infertility among married individuals in Sagamu local government area (LGA), South-West, Nigeria.

## Methodology:

### Study Location

The study was carried out in Sagamu LGA of Ogun State, Nigeria. Sagamu LGA, one of the 20 LGAs in Ogun State. Ogun State is one of the six states in South-West geopolitical zone of Nigeria.

### Study Design

A descriptive cross-sectional study was carried out among 500 married men and women living in Sagamu Local Government Area, South-West, Nigeria.

### Study Population

Respondents were married individuals residing in Sagamu Local Government Area.

### Sample Size

The sample size was determined using the statistical formula for descriptive study:

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

Where,

N = minimum sample size required

Z = constant; a confidence level of 95% = 1.96

p = measure of prevalence or proportion of event in % = 14.8% = 0.148<sup>12</sup>

q = opposite of p = 1-p = 1- 0.148 = 0.852

d = precision value (95% confidence interval) = 0.05

$$\text{Therefore, } N = \frac{1.96 \times 1.96 \times 0.148 \times 0.852}{0.05 \times 0.05} = \mathbf{193.76}$$

$$20\% \text{ non-respondent value} = \frac{20 \times 193.76}{100} = \mathbf{38.75}$$

$$\text{Add } 20\% \text{ non-respondent value; } 193.75 + 38.75 = \mathbf{232.51}$$

However, a total of **500** respondents were studied from two selected political wards in Sagamu Local Government Area.

### Sampling Technique:

The sampling technique used was multi-stage sampling technique. Out of the fifteen (15) wards in Sagamu LGA, two (2) wards were selected by simple random sampling technique with one being urban, and the other being rural. The urban ward was ward 5 (Sabo) while the rural ward was ward 9 (Ode-Lemo). Sabo ward has four (4) enumerations areas. Two (2) enumeration areas were selected by simple random sampling technique. Two (2) streets were selected from each enumeration area by simple random sampling technique. Every house was sampled.

At Ode-Lemo ward, the questionnaires were administered from house to house until the desired sample size was reached. This was done because there was no information available on the number of enumeration areas, streets and houses available even from the palace of the Lisa.

### Data Collection Method:

Data was collected using semi-structured interviewer-administered questionnaires which had been pre-tested at Ikenne Local Government Area of Ogun State, South-West, Nigeria.

### Data Analysis

Data analysis was carried out using the Statistical Package for Social Sciences (SPSS) version 17.0. Frequencies, means and relevant statistics (Chi-square) were calculated and presented as tables.

### Ethical Considerations

Approval was sought from the Local Government Authority through the primary health care department. Permission to carry out the study was also obtained from the traditional ruler prior to commencement of the study. Participation in the study was fully voluntary. Strict confidentiality was ensured. Written informed consent was taken from each participant prior to the interview.

### Limitations of the Study

Transportation to Ode-Lemo was a Herculean task which expended much energy and finance due to the

deplorable state of the road. The male respondents were initially uncooperative but they eventually agreed to the study after emphasizing the confidential nature of the study.

**Table 1: Association between Methods of Contraception and Infertility**

Method of Contraception	Percentage	Chi-square Value	P- Value	
Oral contraceptive pills (OCP)	11.3%	0.159	0.690	>0.05
Injectables	15.2%	0.408	0.523	>0.05
Condoms	18.6%	1.802	0.090	>0.05
Intra-uterine contraceptive device (IUCD)	5.7%	2.871	0.179	>0.05
Norplant	0%	0.584	0.445	>0.05
Other Contraceptive methods	9.1%	0.128	0.720	>0.05

p value > 0.05 is not significant

### Results:

A total of 500 married men and women served as respondents for the study. Their mean age was  $39.67 \pm 9.88$  years ranging from 19 to 60 years. Their mean duration of marriage was  $13.37 \pm 9.72$  years. There were 26% male respondents and 74% female respondents. They were made up of 71.2% Christians, 27.2% Muslims and 1.6% traditional worshippers. The Yoruba tribe accounted for 88.6% of the population while Hausas were 1.4%, Igbos were 5.9% and others accounted for 4.1%.

5.3% were not formally educated while the highest educational level of others were primary school, secondary school and tertiary education which was 12.7%, 24.2%, 57.7% respectively. There were 49.4% professionals, 21.0% skilled workers, 9.9% semi-skilled, 25.5% unskilled and 3.2% were unemployed. 82.8% were married in a monogamous setting while 17.2% are polygamous.

74.6% of the total respondents believe that certain family planning methods can cause infertility. However, 46.7% of the total respondents had a history of contraceptive use irrespective of whether they are infertile or not. Among respondents with infertility, 12.2% had a history of contraceptive use.

Of infertile persons that had been on a particular kind of contraceptive, 11.3%, 15.2%, 5.7%, 18.6%, 0%, 9.1% had history of use of oral contraceptive pills, injectable, intrauterine contraceptive device, condoms, Norplant and other traditional methods of contraception respectively. However, none of these methods of contraception had significant association ( $p > 0.05$ ) with infertility in this study as shown in Table 1 above.

### Discussion:

74.6% of the total respondents believe that certain family planning methods can cause infertility. In a study in Ghana, respondents feared that contraception

can cause infertility and infertile couples further blamed their infertility on an earlier use of contraceptives<sup>14</sup>. Fear of future infertility was the overriding factor in adolescents' decisions to rely on abortion rather than contraception. Many perceived the adverse effect of modern contraceptives on fertility to be continuous and prolonged, while abortion was seen as an immediate solution to an unplanned pregnancy<sup>15</sup>. This might be due to the fact that the commonest source of information on contraceptives is from peer group/friends and mass media, not from health facilities, health care providers, or from school health education.<sup>16</sup>

46.7% of the total respondents had a history of contraceptive use irrespective of whether they are infertile or not. This is higher than a previous study done in 2004 in which contraceptive prevalence South-West, Nigeria was found to be 23%.<sup>17</sup> This is probably due to increasing efforts in educating the public concerning the benefits of contraception and the proximity of the study location to a tertiary health centre. However, the consistency and correctness of contraception was not ascertained in this study.

Among respondents with infertility, 12.2% had a history of contraceptive use. However, of infertile persons that had been on a particular kind of contraceptive, 11.3%, 15.2%, 5.7%, 18.6%, 0%, 9.1% had history of use of oral contraceptive pills, injectable, intrauterine contraceptive device, condoms, Norplant and other traditional methods of contraception respectively.

11.3% of infertile persons have a history of use of oral contraceptive pills and this did not have a significant association with their infertility. A significant problem in Nigeria is a general lack of adequate information about the oral contraceptive pills. The myth that prolonged use of the oral contraceptive pills leads to permanent sterility has limited its use in Nigeria and may explain why most young females in Nigeria, especially students, prefer to use abortion instead of contraception for unwanted pregnancy.<sup>15</sup>

15.2% of infertile persons have a history of use of injectables. Women fear the side effects of hormonal contraceptive injections, probably because of

misinformation. However, amenorrhea, menorrhagia, and metrorrhagia were the major reason for the discontinuation of this method of contraception<sup>18</sup>.

5.7% of infertile persons have a history of use of intrauterine contraceptive device. Fear of infertility was a major reason for disapproval or discontinuation of the use of intrauterine contraceptive device among Nigerian women.<sup>7</sup>

18.6% of infertile persons have a history of use of condoms. According to the 2003 Demographic and Health Survey (DHS), the condom is reported to be the main contraceptive method known of and used by Nigerian women of reproductive age.<sup>17</sup> The extensive marketing of condoms in response to the human immunodeficiency virus (HIV) epidemic, with the active involvement of government and nongovernmental organizations, has been equally responsible for this increased awareness and subsequent increase in condom use.<sup>16</sup>

There was no respondent with a history of use of Norplant. Norplant is the most commonly used long-acting progestin-only subdermal implant in Nigeria. During its first year of use, Norplant was shown to be highly effective and safe, and is considered an acceptable contraceptive method among Nigerian women of different ethnic groups.<sup>19</sup> The fact that respondents in our study did not use Norplant at all suggests that there might be some prejudice or misinformation concerning its use.

## Conclusion and Recommendation:

Infertility is a 'thorn in the flesh' of any family. Hence, it has always been a nightmare dreaded by both married and unmarried individuals. Any factor that would reduce their chance of conception in the future is jettisoned even if there are no claims to substantiate these. It is unfortunate that contraception fall into this category of 'stigmatised' factors and this explains why many Nigerians are not willing to embrace it. Individuals eventually have unplanned pregnancies and resort to unsafe abortion which later results in the infertility they once dreaded. Others that do not abort their pregnancies have large family size, thereby posing a risk to child, maternal and family health.

In this study, no method of contraception had significant association with infertility. This does not attempt to discredit any previous study that links a particular method of contraception with infertility. This study just revealed that the fear of infertility is not enough ground to buttress any argument against contraception.

Health facilities should intensify awareness of contraception and formulate practical follow-up measures that would encourage individuals to engage in contraception. The public should also be educated that apart from prevention of pregnancy, a certain method of contraception, the use of condoms can prevent the transmission of sexually transmitted infections (a major cause of infertility) and HIV/AIDS.

Further research should be done to investigate the awareness and use of Norplant in the study location. Similar studies should be carried out in other parts of Nigeria and Sub-Saharan Africa where the prevalence of contraceptive use has been found to be low due to the fear of its association with infertility.

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