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# Complications of Intrauterine Contraceptive Device (IUCD) Among Users in Orlu, Nigeria

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## Abstract

**Background:** Intrauterine contraceptive device (IUCD) is one of the reversible methods of contraception. Its use has increased steadily worldwide. However, some women reject it based on presumed complications associated with its use.

**Aim:** To determine the complications reported by women, action taken on the complications and other associated factors in Orlu, Nigeria.

**Method:** This is a cross-sectional study of 130 women who had IUCD insertions at the family planning clinics of Imo State University Teaching Hospital and Health Post Orlu between May 2008 and August 2008. Structured questionnaires were administered to consecutive women on follow-up visits at the Family Planning Clinics who are on IUCD. Information regarding age, parity, complications, reported action taken after the complication, clients' awareness of the availability of intrauterine device and duration of IUCD use were included in the questionnaires.

**Result:** A total of 130 users were available for study. Heavy menstruation was reported by 50 (35.2%) women which was the commonest in this study; 65 (50%) did not do anything about whatever complication reported. The age range was 21-45 years with a peak age group of 26-30 years. Majority of the clients 85 (65.4%) knew about IUCD from the hospital. More than half (46.2%) of the patients had between 2-5 children. The distribution of the duration of IUCD use showed that most of the clients had the IUCD for 2 years and less.

**Conclusions:** IUCD is well accepted among users who still consider the benefit of reversible contraception more than the reported complication.

**Keywords:** IUCD, Complications.

## Introduction

Contraceptives are used for demographic control and recently for improved reproductive health. They are administered on individual requests to space childbearing or limit number of children, or to avoid pregnancy because of severe disease. Historically in the 1880's, stones in the wombs of camels, chemical agents and mechanical devices were employed for

pregnancy prevention (1). The intrauterine contraceptive device became available from 1909 when Dr. Richter of Walsenburg described the method(1). Since then it had been in use with more than 106 million women worldwide using the device (2). In developing countries, an estimated 123 million couples do not use contraceptives despite wanting to space or limit their childbearing (3). Nigeria has a population of about 130 million but has a contraceptive prevalence of less than 14% (4). Various factors have been identified as being responsible for this low contraceptive prevalence including poverty, ignorance, low educational level and the desire for large family size (5). Others include poor access to contraceptive services, community pressure, mate or husband dominance and religious beliefs (6, 7).

IUCD has been described as the most effective reversible form of contraception available (8). A single act of motivation is required for long-term use. There are 3 types of IUCD: inert, copper bearing and hormone (levonorgestrel) releasing. The introduction of the levonorgestrel intrauterine system in addition to the copper IUCDs has increased the indications for usage. IUCDs are indicated in any woman who requests for the method, has been adequately and appropriately counseled and has no contra-indications to its use. It can be inserted at anytime of the menstrual cycle provided the health worker has reasonably established that the client is not pregnant. It can now be inserted in the immediate post partum period (within hours) and after spontaneous or medically induced first trimester abortion (2). Common contra-indications to its use are a history of pelvic inflammatory disease, fibroids, congenital abnormality of the uterus, pregnancy and multiple sexual partners. The mechanisms of action include inhibition of sperm migration and viability, change in the transport speed of ovum and damage to or destruction of ovum. Evidence suggests that these pre-fertilization effects constitute the primary mechanism of action for the prevention of pregnancy (10). IUCDs cause a foreign body reaction in the endometrium with increased prostaglandin production and leukocyte infiltration. This reaction is enhanced by copper which affects endometrial enzymes, glycogen metabolism and oestrogen uptake and also inhibits sperm transport. The number of spermatozoa reaching the upper genital tract is reduced with alteration in uterine and

tubal fluid which impairs viability of gametes. However despite its acceptance by many women, there is a lot of reluctance on the part of others due to perceived complications attributed to its use. These include displacement, expulsion, pelvic inflammatory disease, perforation, bleeding and ectopic pregnancy (11, 12, 13). These complications sometimes lead to its removal or to a change to another contraceptive method while others may not consider them significant. Most of the complications are unpredictable hence close follow up is required in all cases(14). Intrauterine pregnancy in the presence of IUCD is rare. It is associated with a higher risk of spontaneous early or mid trimester pregnancy loss or premature labour. It is better to remove it before 12 weeks if the thread is visible. IUCDs provide more protection against intrauterine than extrauterine pregnancy. Pelvic inflammatory disease is associated with IUCDs mostly after insertion. Sometimes the threads are not visible per vaginum, it is likely it had been drawn up the cervical canal, expelled or migrated out of the uterus. It can also be due to unrecognized perforation at the time of insertion.

This study was undertaken to study these complications among users, duration of use of IUCD and the action taken as a result of the complication.

## Materials/Methods

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The study was cross sectional. A structured questionnaire was administered to 130 clients who were already using intrauterine contraceptive devices (IUCD) at the family planning clinic of Imo State University Teaching Hospital Orlu and Health Post, Orlu from May 2008 to August 2008.

The information collected included the complications reported with IUCD use, action taken after the complication, age distribution of respondents, and clients' awareness of the availability of intra uterine contraceptive device, parity and the duration of use of the IUCD.

## Results

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Table 1 shows the complications associated with IUCD use. Twenty six (18.3%) clients reported had no complication. The commonest reported complication was heavy menstruation (35.2%) while painful intercourse was the least complication recorded. On what action they would take after experiencing a complication, 25 (19.2%) will remove the IUCD while 25.4% will switch over to another form of contraception.

About half (50%) of the clients would continue with the IUCD use despite experiencing a complication (Table 2). Table 3 shows the age distribution of the respondents. Their ages range from 21-45 years with a peak of 26-30years. After the peak age group there was a steady downward decline of IUCD use. Most of the patients were aware of IUCD from the hospital (65.4%). The mass media was the least in discussing and informing about contraception and IUCD (Table 4). Table 5 showed that women with 2-5 living children accounted for 46.2% of clients using IUCD. Only 2.3% of those with no living children used IUCD. Majority of the clients (33.1%) used IUCD for one year or less (Table 6). See the tables in the illustration files.

## Discussion

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Intrauterine contraceptive device (IUCD) is the most common reversible method of contraception (9). The advantages include, amongst others, the fact that it requires a single act of motivation for long term use. The commonest complications of its use in this study were heavy menstrual loss, irregular vaginal bleeding and lower abdominal pain. Over 18% of the clients did not report any complication in this study. Other complications reported in other studies are expulsion, perforation, displacement, ectopic pregnancies, pelvic infections and pelvic abscess (11, 12, and 15). The presence of pathogens in the vagina at the time of insertion in a client tends to increase the possibility of pelvic infection (16, 17). A study in Ghana showed 65% of first time acceptors to have pathogens in their vagina. Despite all the reported complications, only 19.2% of the clients in this study removed the IUCD on account of the complications. The discontinuation rates in some centres vary and may reach 10-15% at one year (12-15). The removal sometimes may be due to the desire for pregnancy and not due to complications (18). The peak age group of IUCD use in this study of 26-30 years is the peak reproduction age group in our environment considering the marriage age among our women (19). This is in contrast to the finding in Sokoto, Nigeria where women aged 30-34 years used IUCD the most (20). Most of the clients in this study (65.4%) obtained their information on IUCD use from hospital. This is similar to findings from Zaria (21) but contrasts with the findings in an urban community in South Western Nigeria where the mass media was the predominant source of information on family planning (22). The mean duration of IUCD use in this study was 4 years. This is also the experience in Jos, Nigeria (2). Ineffective counseling about this method of

contraception may be responsible for this; such that women fear that the longer the IUCD in-situ the more likely it will lead to a complication.

## Conclusion

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Intrauterine contraceptive devices are widely accepted and tolerated. Although complications are reported, majority will still consider the benefit of contraception more than these complications. The mass media should be encouraged to play a more active role in the promotion of the use of this effective reversible long term contraceptive method as in the case in Western Nigeria. Effective counseling should include duration of its action. Those desirous of early return to fertilization will also benefit from it as there is prompt return of fertility once IUCD is removed. It is also very effective as an emergency contraceptive. When used appropriately, it promotes maternal health.

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## Illustrations

### Illustration 1

Table 1: \*Complications reported with IUCD use

<b>Complication</b>	<b>Number</b>	<b>Percentage</b>
<b>Heavy Menstruation</b>	<b>50</b>	<b>35.2</b>
<b>Irregular vaginal bleeding</b>	<b>28</b>	<b>19.7</b>
<b>Lower abdominal pain</b>	<b>16</b>	<b>11.3</b>
<b>Painful menstruation</b>	<b>14</b>	<b>9.9</b>
<b>Painful intercourse</b>	<b>8</b>	<b>5.6</b>

**\*Multiple complications in most cases**

## Illustration 2

Table 2: Action taken after a complication

Action	Number	Percentage
<b>No action</b>	<b>65</b>	<b>50</b>
<b>Removal of the IUCD</b>	<b>25</b>	<b>19.2</b>
<b>Changed to another contraceptive method</b>		
<b>Injectable</b>	<b>2</b>	<b>16.9</b>
<b>Condom</b>	<b>8</b>	<b>6.2</b>
<b>Calendar method</b>	<b>7</b>	<b>5.3</b>
<b>Oral contraceptives</b>	<b>3</b>	<b>2.3</b>

### Illustration 3

Table 3: Age Distribution of the Respondents

<b>Age</b>	<b>Number</b>	<b>Percentage</b>
<b>21-25</b>	<b>13</b>	<b>10</b>
<b>26-30</b>	<b>43</b>	<b>33</b>
<b>31-35</b>	<b>32</b>	<b>24.6</b>
<b>36-40</b>	<b>20</b>	<b>15.4</b>
<b>41-45</b>	<b>22</b>	<b>17</b>

## Illustration 4

Table 4: \*Clients source of knowledge about contraceptive device

Source	Number	Percentage
<b>Hospital</b>	<b>85</b>	<b>65.4</b>
<b>Friends</b>	<b>28</b>	<b>21.5</b>
<b>Mass media (television, newspapers etc)</b>	<b>5</b>	<b>3.8</b>
<b>Market</b>	<b>12</b>	<b>9.2</b>
<b>Others (e.g. friends, etc)</b>	<b>10</b>	<b>7.7</b>

**\* Multiple sources in most cases**

## Illustration 5

Table 5: Distribution of clients by no of living children

<b>Living children</b>	<b>Number</b>	<b>Percentage</b>
<b>0</b>	<b>3</b>	<b>2.3</b>
<b>1</b>	<b>21</b>	<b>16.1</b>
<b>2-5</b>	<b>60</b>	<b>46.2</b>
<b>More than 5</b>	<b>46</b>	<b>35.4</b>

## Illustration 6

Table 6: Duration of use

<b>Years</b>	<b>Number</b>	<b>Percentage</b>
<b><math>\leq 1</math></b>	<b>43</b>	<b>33.1</b>
<b>2-4</b>	<b>36</b>	<b>26.7</b>
<b>5-7</b>	<b>37</b>	<b>28.5</b>
<b><math>\geq 8</math></b>	<b>14</b>	<b>10.8</b>

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