The Level and Determinants of Contraceptive Use Among Kampala International University Western Campus Students Between March and September 2022

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ABSTRACT

The study aimed to evaluate the level and determinants of contraceptive utilization among students at Kampala International University, Western Campus in Bushenyi District, Uganda. A descriptive cross-sectional study was conducted using online questionnaires and Microsoft Excel v.2019. The majority of respondents were Pentecostals, single, and not formally employed. 24.48% were currently using any contraceptive method, with 69.25% being well-informed about different methods. Barriers to contraceptive utilization included ease of use, affordability, availability, and absence of side effects. Barriers included lack of information about contraceptive methods, rural setting, partner reluctance, and religious constraints. Contraceptive utilization is low among female students at KIU-WC, and stakeholders such as the clergy, women's partners, the university, and the municipal council must work together to address these barriers and address the unmet need for contraceptives among women.

Keywords: Family planning, Maternal and child mortality rate, Contraceptive, Female students, Mothers.

INTRODUCTION

Family planning has proven to globally reduce maternal and child mortality rate, the major reason it is seen as a means of achieving goals 4 and 5 of the Millennium Development Goals (MDGs). [1]. There are several reported benefits of FP, including; prevention of unwanted pregnancies or abortions, protection against sexually transmitted diseases [2]. According to WHO, the global utilization of contraceptives is still too low despite much effort to reverse this. So many sexually active individuals are not using any contraceptive methods more so in the majority of the world’s poorest countries where it has been observed that contraceptive prevalence is low and the unmet need for family planning is high [3]. Despite the multiple benefits associated with its usage, the use of contraceptive use remains very low in Sub-Saharan Africa [4]; the low adoption of contraceptives still reflects in high rates of unwanted pregnancies, maternal mortalities, a high rate of abortions, and unplanned births [5]. Several studies from different regions of Sub-Saharan Africa have reported the factors responsible for African women’s poor adoption of contraceptives, such as a lack of or inadequate information on various forms of contraceptives and their performance, as well as side effects of contraceptive methods [6]. Because of the earlier onset of puberty and the increasing age of marriage in most low-income nations, the bio-social gap has expanded [7]. As a result, premarital sexual activity has increased, putting vulnerable young people at risk of unwanted pregnancies and sexually transmitted illnesses (STI). Premarital sexual conduct among university students in Asia and Africa appears to be on the rise, owing to a range of factors such as increased urbanization and media exposure [8].
Contraceptive use is advocated to protect against unwanted pregnancies and sexually transmitted disease as well as preventing unsafe abortions, which contribute to high mortality. Unwanted pregnancies have also cut short the educational aspirations of affected young girls in many regions of Africa [8]. Despite improvements in contraceptive use witnessed in some regions of the world, some countries – most of them in Africa – still have low prevalence in terms of contraceptive use especially within young adults [9]. In Uganda, 6.5 percent of 15- to 19-year-olds use contraception, whereas 21.3 percent of those aged 20 to 24 use it [9]. According to a survey conducted at six Ugandan tertiary institutions, overall condom use is 51%, while current use of contraceptive methods other than male condoms is 9%. In addition, 6% of all sexually active students aged 15 to 19 fell pregnant, according to the report [10].

Almost half of Uganda's population is under the age of 15, with another 20% between 15 to 25 [10]. Risky sexual conduct among university students is associated with poor mental health, sexual coercion, low confidence in others, and increased university enrolment [11]. A recent study [9] discovered that university students had non-regular partners, unsafe sex, and cross-generational intercourse. Adolescent pregnancy is a serious social issue that has long-term emotional and economic consequences for teenage moms. These young women have given up their chance at higher education, lowered their income, and raised their chances of having to raise a child as a single parent [12]. Furthermore, infants born to young mothers have a higher risk of fetal death, early delivery, low birth weight, and cognitive impairment [13].

**Study design**
A descriptive cross-sectional study with a quantitative approach was used. This was because quantitative studies are easier to carry out and additionally, they give a general overview of the variables of a study.

**METHODOLOGY**

**Area of Study**
Kampala International University-Western Campus, located in Ishaka – Bushenyi, Western Uganda, is a private university with its own teaching hospital about 450km Southwest of Kampala City. It is one of the oldest chartered private universities in the country with a
population of over 10,000 students studying various courses, most of which are science-based; the majority of courses target human medicine and therefore most students have a sound knowledge of contraceptives and reproductive health as this is included in their scope of studies.

**Study Population**
University students of reproductive age (15–49 years) studying at KIU-WC pursing any course. This is in line with the study objectives and this group was selected particularly because they are the most sexually active and are prone to use (or not use) contraceptives.

**Inclusion criteria**
All reproductive age students studying at KIU-WC at the period of the study and who consented shall be recruited.

**Exclusion criteria**
All reproductive age students who do not study at KIU-WC, or who refused consent shall be excluded.

**Sample size determination**
The sample size shall be determined using Fishers et al., 2006 formula i.e. $N=Z^2PQ/D^2$:

Where;
- $N$ is the desired sample size
- $Z$ is the standard normal deviation taken as 1.96 at a confidence interval of 95%.
- $P$ is the prevalence of uptake of contraceptives = 32.1% (2011 statistics as per Andi et, al, 2014). This was used as a reference so as to calculate our sample size.
- $D$ is the degree of accuracy= 0.05.
- $Q= (1-P)$ which is the population not on modern contraceptives.

Therefore, $N= 1.96^2 X 0.321 (1-0.321) / (0.05)^2 = 335$ was the sample size.

**Sampling technique**
Convenient consecutive sampling technique with sequential recruitment was used whereby participants were chosen as they met the inclusion criteria until the sample size was achieved. The questionnaire was pre-tested among the researcher’s classmates prior to the main study. Corrections were made where needed. Furthermore, the research assistants were taught in data input so that they did not make unnecessary mistakes.

**Data collection method**
Online questionnaires were used for the study. With the help of three assistants fluent in English, the researcher asked respondents questions online (through Google Forms) as per the objectives of the study and later analyze and interpret the data. Online questionnaires are easy to conduct and are helpful in circumstances where physical meetings are difficult, more so during the era of the COVID-19 pandemic where some research participants may be worry of meeting strangers and being in close proximity with them.

**Quality control**
The questionnaire was pre-tested among the researcher's classmates prior to the main study. Corrections were made where needed. Furthermore, the research assistants were taught in data input so that they did not make unnecessary mistakes.

**Data analysis**
Each questionnaire was validated and verified for completeness, missing numbers, and ambiguous responses before being manually tidied up. Microsoft Excel 2019 was used to enter and evaluate data. The data was cross-checked for consistency and accuracy using double entry. Responses and observations were assigned points, tabulated, and then documented and shown in the form of tables and charts.

**Ethical considerations**
The IREC at Kampala International University-Western Campus granted permission to conduct this study through the faculty of clinical medicine and dentistry. Participants were promised of confidentiality and that any information acquired would be used solely for the purposes of the research. Participation was entirely voluntary, with respondents free to opt out at any point if they did not feel comfortable continuing.
RESULTS
Demographic characteristics of the participants

Table 1: Socio-demographic characteristics of Respondents (N=335).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency (N)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AGE CLUSTERS (Yrs.)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 – 19</td>
<td>40</td>
<td>11.94</td>
</tr>
<tr>
<td>20 – 24</td>
<td>55</td>
<td>16.42</td>
</tr>
<tr>
<td>25 – 29</td>
<td>89</td>
<td>26.57</td>
</tr>
<tr>
<td>30 – 34</td>
<td>62</td>
<td>18.51</td>
</tr>
<tr>
<td>35 – 39</td>
<td>67</td>
<td>20</td>
</tr>
<tr>
<td>40 – 44</td>
<td>14</td>
<td>4.18</td>
</tr>
<tr>
<td>45 – 49</td>
<td>8</td>
<td>2.39</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>335</td>
<td>100</td>
</tr>
</tbody>
</table>

| **RELIGION**                 |               |                |
| Catholic                     | 100           | 29.85          |
| Pentecostal                  | 180           | 53.73          |
| Muslim                       | 5             | 1.49           |
| Others                       | 50            | 14.93          |
| **Total**                    | 335           | 100            |

| **MARITAL STATUS**           |               |                |
| Married                      | 42            | 12.54          |
| Single                       | 232           | 69.25          |
| In relationships             | 42            | 12.54          |
| Separated / Divorced        | 19            | 5.67           |
| **Total**                    | 335           | 100            |

| **ETRA OCCUPATION**          |               |                |
| Housewife / homemaker       | 69            | 20.60          |
| Farming                     | 80            | 23.88          |
| Trade / Business            | 100           | 29.85          |
| Handicraft                  | 22            | 6.57           |
| Formal employment           | 64            | 19.11          |
| **Total**                    | 335           | 100            |

| **PRIMARY RESIDENCE**        |               |                |
| Rural                       | 108           | 32.24          |
| Urban                       | 227           | 67.76          |
| **Total**                    | 335           | 100            |

Majority of the respondent fell between the ages of 20 and 39 years with the mean age being 25.02 years. Only 22 (6.57%) were above 39 years of age while about 40 (11.94%) were between 15 and 19 years. Most of the women were Pentecostals (53.73%). Catholics followed closely with 29.85% and next were those with other religious affiliations with 14.93%. Muslims were 1.49% of the respondents. On the marital status, 232 (69.25%) of the respondents were single, 42 (12.54%) were either married or in relationships respectively, and 19 (5.67%) were either separated or divorced. Majority of the women interviewed were not formally
employed in addition to being students. Only 64 (19.11%) were in a sort of formal employment. Most of them were either small business traders (29.85%) while the rest were either farmers (23.885), housewives (20.60%) or dealt in handicrafts (6.57%).

**Level of contraceptive utilization**

In an attempt to assess the level of contraceptive utilization, we asked the women whether they are currently using any contraceptive method. 253 (75.52%) of the women were not on any modern contraceptive method at the time of the study, with just 24.48% currently using any contraceptive method. The researcher also went ahead to assess the level of knowledge on contraceptives. 232 (69.25%) of the respondents were well knowledgeable about the different methods and types while 103 (30.75%) lacked concrete knowledge. The various sources of information cited by those who had substantial knowledge about contraceptives were radio, television, health workers, family and friends. In assessing the different types of contraceptives utilized among those who were currently actively using the methods, we discovered that the most common modern method of contraception used was the condom (56.10%) followed by the pill (25.61%) and injection (13.42%). Intrauterine devices (IUDs) had the least users at (4.87%) as shown in figure 2 below.

![Figure 1: The different modern contraceptive methods used (N=82)](figure1.png)

Those who used the condom preferred it because of its availability, ease of use whenever needed, and lack of detrimental consequences. The injection users prefer the approach since it allows them some control over their reproductive lives, as well as the ease of a single injection covering them for a long time. The IUD users choose the procedure since it is effective for as long as it is inserted. Those who use the pill say they picked it because it is easily reversible, meaning the effects fade fast after quitting use. They also stated that it was less invasive than the options they could have chosen. Overall, women using contemporary
contraception were satisfied with their contraceptive method of choice. Those who used condoms (either male or female condoms) reported less enjoyment during the sexual act, making consistent use with the same partner in a multi-session act difficult. The pill users were concerned about the pill burden and were concerned that they would forget to take their daily dose, which would reduce effectiveness. They were also concerned about changes in body weight and their pill cycles. When it came to having children, those who used injectable contraception were most concerned about their weight and delayed or difficult conception.

**Marital status and uptake of modern contraceptive methods**

A total of 82 women within the reproductive age were on some form of modern contraceptive. This gave an overall prevalence of modern contraceptive use of 24.48%. This is shown in figure 3 below. These consisted of 28 (66.67%) of the married, 49 (21.12%) of the single, 1 (2.38%) of those in relationships and 4 (21.05%) of the separated or divorced.

![Figure 2: Uptake of modern contraceptives by marital status (N=335)](image)

**Primary Residence and Uptake of Modern Contraceptives**

In Out study primary residence referred to where a student lives when at their home, rather than place of stay while at the university. The rationale is that, the university is just a temporary place of stay in that the student’s thoughts and ideas were probably shaped by their long term primary residence.
When compared to rural people, urban people were more likely to utilize contraception. Contraceptives was used by 74 (32.6%) of urbanite women compared to only 8 (7.4%) of rural women. As seen in the figure above, a woman of reproductive age from an urban setting was more likely to be using contraception than her rural counterpart.

**Number of Children and Uptake of Modern Contraceptives**

The highest percentage however was found among those with 5 children and above, and this could be because they are attempting not to further bear children. According to table 3, not having a child (24.39%), having 3 to 4 living children (26.83%), and having 5 children or more (39.02%) were all related with contraceptive use. The ones who had none and were on contraceptives could have been the working, single group who were continuing on their career trajectories. Those with three or more children may be attempting to space their family or may have stopped bearing altogether.

**Table 2: Association of number of live children with uptake of modern contraceptives (N=82)**

<table>
<thead>
<tr>
<th>Number of children alive</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 2</td>
<td>8</td>
<td>9.76</td>
</tr>
<tr>
<td>3 - 4</td>
<td>22</td>
<td>26.83</td>
</tr>
<tr>
<td>5 and above</td>
<td>32</td>
<td>39.02</td>
</tr>
<tr>
<td>None</td>
<td>20</td>
<td>24.39</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>82</td>
<td>100</td>
</tr>
</tbody>
</table>
Barriers to utilization of contraceptives

Two hundred fifty-three (75.52%) of the women were not using any form of contemporary contraception. Figure 5 depicts the explanations offered as to why they were not employing any method. The majority of those who did not use any technique did so because they were unaware of the various methods of contraception and did not want the ones they were most familiar with (condoms), accounting for 103 (40.71%) of the respondents. 65 (25.69%) of those not using any type of contraception cited partner rejection, 70 (27.67%) indicated that their religion banned them from using any artificial method of contraception, and 15 (5.93%) stated that they were not sexually active at the time.

Figure 4: Reasons given by the respondents not on any contraceptive method (N=253)

DISCUSSION

Level of contraceptive utilization among students

Only 82 (24.48%) of the women used a contraceptive method, while 69.25% of the respondents were aware of contraception. Contraceptive use was highest among married women, and it was higher among urban people than among rural dwellers. In the urban setting, 32.6% of women used contemporary contraception, compared to 7.41% of rural women. Contraception utilization was therefore quite low. It was lower than the 51.9% reported in Nigeria by [8], and the specific uptake rates of singles and married women were lower in our study. Differences in population size, duration of research, or even cultural and religious views that exist between the two study groups and study sites could explain the disparity. However, our findings were greater than those of [14], who reported a 14.6% rate of contraceptive use among adolescent women. That lower finding in
that study could be attributed to the study's limitation of just involving adolescents, whereas in our study all women of reproductive age were included [15] reported a figure of 36% in Ethiopia, which is slightly higher than ours. This could be owing to more awareness efforts on contraceptives than in Uganda. Ugandan records have shown numbers as high as 32.1% as recently as 2011[16]. Even at the time, these levels were still quite low, and with the awareness initiatives that have been ongoing since then, the value should be increasing rather than decreasing.

**Determinants of contraceptive utilization**

The condom (both male and female) was the most popular method of contraception (56.10%), followed by the pill (25.61%), injection (13.42%), and IUDs (4.87%). Ready availability, ease of use, minimal side effects, sense of control, quick reversibility and prolonged effectiveness when required were the factors cited as to influence choice of the contraceptives. The use of contraceptive methods was found to be highly related to marital status, place of residence, and the number of live children in the family. Married women who live in cities were found to use contraception in greater percentages. Having no living children or three or more was also linked to contraceptive use. The findings are consistent with previous studies such as [2], [16], and [8], among others.

**Barriers to contraceptive utilization**

Lack of awareness on the existence of different contraceptive methods, partner refusal, religious prohibition and not being sexually active were the main reasons cited for nonuse of contraceptives. Other factors that impacted negatively to contraceptive use were being separated, divorced or widowed, and dwelling in a rural setup. Similar findings have been recorded in various studies conducted elsewhere in the past despite different population dynamics [17] in India, [14] in Ghana, [18] in Ethiopia and [19] in Kenya all reported similar barriers. These findings were also consistent with studies carried out in in Ghana; socio-cultural issues such as status of the relationship with partners and the importance of virginity, problems talking about sexual issues and contraception being taboo, health care issues - especially cost and availability - and individual issues such as unfavourable social attitudes towards contraceptives and a lack of knowledge about the use and benefits of contraceptives were the chief barriers identified among women of reproductive age [20]; while in Nigeria lack of awareness of a place of FP service provision, respondents' disapproval of the use of contraceptives, lower education status, and being married were the barriers found significant [21]-[27].

**CONCLUSION**

Contraceptive utilization is quite low among female students at KIU-WC. The determinants of contraceptive utilization include ease of use, inexpensive, availability as well as absence of side effects, whereas the barriers include lack of information about the existence of various methods, coming from a rural setting, partner reluctance, and religious prohibitions.

**Recommendations**

Partners should take an active role in family and reproductive health by supporting contraceptive use among their female partners for they too have much to benefit by doing so. The religious leaders should be encouraged to embrace and teach about contraceptive use among their congregants (especially the deities that prohibit certain methods) as the merits of contraceptive use outweigh the demerits. Healthcare providers should create more awareness on the existence and benefits of contraceptives through outreaches and sensitization campaigns.

**REFERENCES**


