SUMMARY:
Six hundred and thirteen (613) students from 11 selected secondary schools in Yaoundé meeting our inclusion criteria were enrolled in this study aimed at assessing and comparing knowledge, attitudes, and practice of contraception among students of both sexes. A structured standardized questionnaire was used to collect information from 340 females (55.5%) and 273 males (45.5%). We found that knowledge about sexuality, reproduction and contraception was low especially among males, younger students and those who were not sexually active. Sexually inactive students risk getting into sexual activity without using contraception. Risky attitudes and practices included multiplicity of partners, lack of contraceptive use and preference of natural methods to modern methods. In addition parents don’t encourage their kids to use contraception. We recommend that the subgroups cited above be given special attention and proposed an educational program for secondary school adolescents taking this into consideration.

KEY WORDS: Contraception - Sexuality - Student.
- One out of 20 teenagers was going to contract an STI annually and of the 33.4 million individuals infected with the HIV 1/3 were to be between ages 15 and 24. This was even more likely in sub-Saharan Africa. Thus adolescents in sub-Saharan Africa are greatly at risk.

Contraception offers the solution to this crisis. In addition to prevention of unwanted pregnancies, abortion, STIs, HIV and AIDS, it has far reaching socio-economic advantages. However, in spite of the wide variety of methods available and the severity of the crisis the use of contraception does not seem to match up with expectations. Several factors may be the cause. These include low knowledge, poor attitudes and practices which are themselves influenced by such factors as culture, religion, economic and legal issues [2]. Problems related to contraception are so serious that massive mobilization should be carried out in a bid to solve them. However, some groups were not sufficiently involved in these schemes. One such group is the male folk. This resulted in limited success of such schemes. Adolescents are very vulnerable to such problems and suffer the same gender inequities like the general population. This is why we decided to carry out this study in order to assess and compare knowledge, attitudes and practice of contraception among secondary school students and in so doing detect differences between males and females. Our intention was to design an educational program for both groups separately or together.

II - METHODOLOGY

This study was carried out from August 2000 to December 2001. We enrolled 613 of students of Forms 3 to 7 from 11 secondary schools in Yaoundé. Our inclusion criteria were:

**For secondary schools**
- be accredited by the state.
- be open to both sexes.
- have at least 200 students enrolled.
- that the administration gives its approval.

**For study participants**
- be of Cameroonian nationality.
- be aged 10-19 years.
- be resident in Yaoundé for at least a year upon onset of the study.
- be officially enrolled in the school.
- accept to participate in the study voluntarily.

All students were given a questionnaire each to avoid indiscipline, frustration at being left out and sharing ideas or influence of others. However only 613 students who met the inclusion criteria had their questionnaires analysed. 384 subjects were needed to meet our sample size requirement given by the Lorenz formula. Confidentiality was guaranteed. Data analysis was done using computer database programs, Access, Excel and EPI info. Percentages, proportions and means were calculated and compared using P values and chi square ($X^2$) with margin of error = 0.05.

III - RESULTS

**Table I** - Distribution of study participants by whether or not they could correctly situate the fertile period within the menstrual cycle according to gender.

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Situate correctly</td>
<td>43 (15.8%)</td>
<td>101 (29.7%)</td>
<td>144 (23.4%)</td>
</tr>
<tr>
<td>Situate incorrectly</td>
<td>230 (84.2%)</td>
<td>239 (70.3%)</td>
<td>469 (76.5%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>273 (100%)</strong></td>
<td><strong>340 (100%)</strong></td>
<td><strong>273 (99.9%)</strong></td>
</tr>
</tbody>
</table>

Overall females tend to be more knowledgeable.

**Table II** - Distribution of sexually active study participants by whether or not they had ever used contraceptives.

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Had ever used</td>
<td>79 (44.8%)</td>
<td>93 (68.0%)</td>
</tr>
<tr>
<td>Had never used</td>
<td>98 (55.2%)</td>
<td>44 (32.0%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>103 (100%)</strong></td>
<td><strong>137 (100%)</strong></td>
</tr>
</tbody>
</table>

There is a high proportion of sexually active students who have never used contraceptives before. Females were more frequent ever-users than males ($p < 0.05$).

**Table III** - Frequencies at which non-users of contraception cited different reasons to justify non-use.

<table>
<thead>
<tr>
<th>Reason</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Don’t know what to use</td>
<td>92</td>
</tr>
<tr>
<td>Did not think it is necessary</td>
<td>47</td>
</tr>
<tr>
<td>Not accessible</td>
<td>14</td>
</tr>
<tr>
<td>Shame</td>
<td>27</td>
</tr>
<tr>
<td>Trust in partner</td>
<td>01</td>
</tr>
<tr>
<td>Ignorance at the time of sexual intercourse</td>
<td>01</td>
</tr>
<tr>
<td>Reduce pleasure</td>
<td>03</td>
</tr>
<tr>
<td>Needed parental consent</td>
<td>01</td>
</tr>
</tbody>
</table>

Most non-users do not know what to use or do not consider contraceptive use necessary.

**Table IV** - Percentage distribution of study participants of both sexes by level of education of most educated parent or guardian and whether they encouraged contraception.

<table>
<thead>
<tr>
<th>Level of education of parent/guardian</th>
<th>Encourage</th>
<th>Don’t Encourage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>None</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Primary</td>
<td>45.5</td>
<td>54.5</td>
</tr>
<tr>
<td>Secondary</td>
<td>42.0</td>
<td>58.0</td>
</tr>
<tr>
<td>University</td>
<td>44.9</td>
<td>55.1</td>
</tr>
<tr>
<td>Unknown</td>
<td>31.3</td>
<td>68.7</td>
</tr>
</tbody>
</table>
Knowledge, attitudes and practice of contraception amongst secondary school students in Yaounde, Cameroon: A study of perception differences between males and females.

V. DISCUSSION

Of 613 participants retained 44.5% were males and 55.5% females. The two groups were fairly even. Ages ranged between 10 and 19 years the majority being 15 and above. Most were Christians reflecting the generally tendency of the southern part of Cameroon where Yaoundé is found and the indigenous tribe were in the majority 39.8%. Only 2 females were married. Most married girls drop out of school while those who stay on, marry much later.

- Knowledge on sexuality / reproduction and contraception

Major sources of information cited were peers (75.6%), media (55.5%), and parents (46.2%). Most participants were informed by several sources. However, peers are not knowledgeable enough and could rather misinform each other; the media dishes out sketchy, equivocal messages that care more about market and commercial exigencies than needs of the population and is not interactive; parents are rather sentimental and judgmental than realistic with their kids. School/seminars and health personnel would be more open and realistic but were cited less. This may explain the low level of knowledge. Infact even though the majority knew that unsafe sex could lead to pregnancy (97.1%) and STIs/AIDS (91.8%) some still mentioned indirect consequences like infertility, abortion and death. Only 23.4% correctly situated the fertile period within the menstrual cycle. Females did so better and there was a statistically significant difference (29.7% vs 15.8% p = 0.00). With increase in age and class, knowledge improved especially for girls of forms 6 and 7. However while boys showed no difference whether they were sexually active or not, sexually active girls were more knowledgeable than those who were not (43.1% vs 21.2% p= 0.00). This may be due to the fact that because girls menstruate and are more vulnerable they are more inquisitive on the subject especially when they are sexually active. Also the older students are in higher classes and have benefited from more lessons on reproductive biology. The lower knowledge in males reflects the lack of campaigns targeting them. Females had a better understanding of what contraception is. Students of the second cycle (Forms 6 and 7) were more knowledgeable as well as those who were sexually active (68.9% vs 31.1% for males; 92.1% vs 77.5% for females p= 0.00 in both cases). The same sources of information as for sexuality in general were cited and the same reasons explain these trends. It is important to note however that while some students did not understand the term “contraception” they later cited a method which shows inadequate knowledge. Also the large number of sexually inactive with no understanding is an indication that most of them will not use a method of contraception during first intercourse. It is estimated that only 18% of Cameroonian adolescents do so at first intercourse [3]. Among students who claimed to understand what contraception is the methods known most were the condom (67.8%), the pill (45.8%), periodic abstinence (34.0%). Some erroneous responses like abortion and traditional portions were cited. Sixty-two percent (62%) of students knew no method was 100% efficient but some thought they could lead to sterility or death justifying fears that could explain why knowledge is unmatched by use. AMAZIGO [4] found similarly that girls were more knowledgeable and even so more with age and class unlike boys who showed no such differences.

- Attitudes and practice

51.2% of participants were sexually active. Males tended to be more sexually active (64.9% vs 40.2% p= 0.00). This may reflect more permissive attitudes of parents towards males. KAMCHOUNG of Cameroon, AMAZIGO of Nigeria and GUEYE of Mali had similar findings [3, 4, 5]. The reasons students gave for initiation into sex were curiosity (48.5% males and 35.9% females); to please partner (27.1% males and 34.6% females); felt of age (24.2% males and 22.2% females). In addition peer pressure was a strong motivation for males compared to females (17.5% males vs 04.6% females). These figures suggest that students are not properly advised. They will rather try out things to find out how they feel (curiosity) or simple submit to the rule of the masses. With proper education they will tend to make individual choices not based on peer acceptability or age but on degree of maturity and readiness. Their curiosity will be satisfied intellectually rather than physically. One male participant reported having begun sexually active at 7 years while playing with his older brother. This indicates the need to start sexual education early enough.

Males tended to have multiple partners more often (40.5% vs 11.3% p= 0.00). Most however had intercourse only once a month at most (50.7% vs 61.70%) which is testimony that sexual intercourse is occasional and probably unplanned.

Most students thought contraception was necessary but up to 15% of males and 12.1% females thought only adults or married persons should use it or that it was unnecessary. There was no statistically significant difference in expression of need between sexually active and non sexually active for both sexes. However, caution must be shown here because these figures represent just those who knew about contraception. Amongst sexually inactive only 31.3% males and 77.5% females knew about contraception. This implies in reality that only 20.2% of such males and 58.2% of such
females thought it necessary and will use it during first intercourse.

Of the less than 50% of parents who discussed sexuality with their kids most discouraged use of contraceptives (67.2% for males and 66.0% for females). Parent sensitisation is thus crucial.

About eighty percent (88.4%) thought both partners should be responsible for contraception justifying this by the fact that both shared the pleasure, mutual trust was rare, it will be more efficient or just a matter of common sense. Those favouring male responsibility thought men were more economically viable, their methods cheaper and easier to use and females had lots of other problems to solve. Those favouring female responsibility thought they were more liable to consequences and public disgrace so should be more careful. Paraadoxically more females held this view while more males were in favour of males being responsible.

About fifty-five percent (54.8%) of sexually active participants had used contraception at least once in the past. This was higher amongst females. The methods most frequently used were the condom (50% past, 44.5% present), periodic abstinence (20% past, 32.2% present). However we noted earlier that most students did not correctly situate the fertile period within the menstrual cycle so could not correctly use periodic abstinence. Besides while this prevents pregnancy occurring to some degree, it won’t prevent STIs, HIV and AIDS. Also we note the general shift from the condom and pill (modern methods) to periodic abstinence which is regrettable. Our only hope is that since most students had used more than one method they did so simultaneously to increase efficiency. Up to 55.7% males and 51.6% females claimed to always use contraception. Since sexual intercourse is occasional this may be true.

Non-users justified non-use by:
- not knowing what to use 8.5%
- not thinking it necessary 7.7%
- being shy 3.9%
- inaccessibility 2.3%

One student even needed parental accord. These non-users were sexually active participants who knew about contraception. When one thinks that only 31.1% of sexually active females and 7.9% of sexually active males know what contraception is, it becomes clear that a large number of the sexually active are non-users and the need for IEC is reinforced.

About seventy percent (70.1%) of male non-users and 85.7% of female non-users were ready to use contraception in future. Most males opted for the condom and females for periodic abstinence. Even some who had thought it unnecessary were ready to.

For both users and non-users some males cited the pill, IUD (intrauterine device) and injections, as methods they would use. Our fear is that they think they can achieve contraception by using these themselves or may think it is the females’ responsibility. The need for education again is clear. Close to fourteen percent (14.1%) males & 14.1% females had been involved in a pregnancy once before and this was significantly higher among female non-users. No difference was seen amongst males.

Of the 6.2% males and 8.0% females who declared they had once contracted an STI, 82% and 63.3% respectively claimed to have used condoms on at least one occasion.

V- CONCLUSION

We therefore conclude that:
- Knowledge of contraception amongst secondary school adolescents is still very low.
- Males, younger students (<15years old) and those of lower classes (1st cycle) are less informed.
- Contraceptive use is still low among sexually active students.
- Even though those who are aware of what contraception is have positive attitudes they lack parental encouragement.
- Females were found to be more knowledgeable than males and to use contraceptives more often.
- Sexually inactive students risk getting into sexual activity without using some kind of contraception because of low knowledge, poor attitudes and practice.
- The need for an educational program which addresses specific needs of each sex group is crucial.

VI- RECOMMENDATIONS

We recommend that more intensive educational programs on contraception in particular and reproductive health in general be instituted in the secondary school curriculum and the subgroups cited above be given special attention. Parents and the community need to be educated and convinced on the need to educate and encourage their children on matters of contraception.

REFERENCES: