Contraception among Medical and Paramedical Students in Cotonou, Benin in 2016: Knowledge and Practices

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Objective: To assess the knowledge and practices of future health workers on contraception.

Methods: This was a survey carried out in Cotonou (Benin) by the students of the Medical Training and Research Unit at the Faculty of Health Sciences (FSS) and the Institut Médico-Sanitary (INMeS).

Results: The survey involved 525 students, including 259 males and 266 females. The average age of students was 21 ± 2 years (15-31 years). Almost all students (9/10) had at least one contraceptive method. The rate of contraceptive use was 86.5%. The contraceptive method used by males students was the male condom, unlike females students who used natural methods and emergency contraception. The age, religion and marital status of the students had no influence on the use of contraception. The reasons for non-use of contraceptive methods were mainly the lack of knowledge about contraception (62.5%) and fear of side effects (20%).

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Results

Characteristics of the sample

Our results concern 525 students, including 266 females and 259 males. The average age of students was 21 ± 2 years (15-31 years). Almost all students (95.0%) were single, the others (5.0%) were in common-law relationships. The Christian religion was the most practiced (84.4%) and the others were either in the Muslim religion (13.3%), the traditional religion (0.8%) or no religion (1.5%).

Student knowledge about contraception

Approximately 9 students out of 10 know at least one contraceptive method and the most common contraceptive methods were the male condom (81.5%), the birth control pill (74.9%) and the intrauterine device (56.2%) (Figure 1).

A student has several sources of information on contraception. Media (9 out of 10 students) and teacher courses (6 out of 10 students) were main sources of information for these students. One out of 10 students got informed from friends, relatives or during awareness-raising sessions. Most students knew that contraception helps prevent unwanted pregnancy (91.2%) and birth spacing (87.4%). Only 5.7% of the students knew that some contraceptive methods can prevent sexually transmitted infections.

Student contraceptive practices

296 students out of the 525 were sexually active that's 86.5% and they used at least one contraceptive method (Table 1). The majority of contraceptive users (71.1%) did so occasionally. The most common method used by students was the male condom (8/10), followed by natural methods (6/10), emergency contraception (3/10) and birth control pill (1/10) (Figure 2). Male students used male condoms more than female students who had gone through natural methods (calendar method; withdrawal) and emergency contraception (Table 2).

On the 296 sexually active students, 40 didn't use contraceptive methods for reasons related to the lack of knowledge (26/40), fear of side effects (8/40), religion (1/40), refusal of the partner (1/40) and supply difficulties (1/40). In our series, 37.1% of users of contraceptive methods reported that they had experienced side effects after use. The prevalence of sexually transmitted infections in our sample was 3.1%. The unwanted pregnancy rate was 6.5% and most of these pregnancies (66.7%) resulted in induced abortion.

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Total</th>
<th>Use of contraceptive methods</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Yes (%)</td>
<td>No (%)</td>
</tr>
<tr>
<td>Gender</td>
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<td></td>
<td></td>
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<tr>
<td>Male</td>
<td>155</td>
<td>140 (90.3)</td>
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<tr>
<td>Female</td>
<td>141</td>
<td>116 (82.3)</td>
<td>25 (17.7)</td>
</tr>
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<td></td>
<td></td>
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<tr>
<td>15-19</td>
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<td>45 (77.6)</td>
<td>13 (22.4)</td>
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<td>20-24</td>
<td>206</td>
<td>181 (87.9)</td>
<td>25 (12.1)</td>
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<tr>
<td>25-31</td>
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<td>30 (93.8)</td>
<td>2 (6.2)</td>
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<td>Religion</td>
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<td>158 (87.8)</td>
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<tr>
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<td>46 (82.1)</td>
<td>10 (17.9)</td>
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<tr>
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<tr>
<td>Protestant</td>
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<td>7 (87.5)</td>
<td>1 (12.5)</td>
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<tr>
<td>Without religion</td>
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<td>3 (50.0)</td>
<td>3 (50.0)</td>
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<tr>
<td>Celestial Church of Christ member</td>
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<td>4 (80.0)</td>
<td>1 (20.0)</td>
</tr>
<tr>
<td>Animist</td>
<td>3</td>
<td>2 (66.7)</td>
<td>1 (33.3)</td>
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<td>Marital Status</td>
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<tr>
<td>Single</td>
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<td>236 (86.8)</td>
<td>36 (13.2)</td>
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<tr>
<td>Common-law relation</td>
<td>24</td>
<td>20 (83.3)</td>
<td>4 (16.7)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Methods</th>
<th>n (%)</th>
<th>p</th>
</tr>
</thead>
</table>

Table 1: Contraceptive prevalence based on socio-demographic characteristics.
Knowledge of modern contraceptive methods was 59.1% for females who used at least one contraceptive method. According to the results of the 2012 Demographic Health Survey in Benin [3], more than 8 out of 10 women (85%) and about 9 out of 10 men (92.0%) knew at least one contraceptive method. This knowledge, according to the same survey, was slightly higher (97.3% for women and 99.0% for men) for an education level that is greater than or equal to the second cycle. In the literature, the level of contraceptive knowledge varies from country to country: 99% in Togo, 63% in Burkina Faso [4] and 34% in Senegal [5].

Our study carried out in a university environment in Cotonou, Benin, found a knowledge level of at least one contraceptive method of 97.0% for female students and 94.2% for students. The most common contraceptive methods are the male condom (81.5%), the birth control pill (74.9%) and the intrauterine device (56.2%). The main sources of information in our sample are the media (49.6%) and the school (30.1%).

In 2007, in the Congolese general population [6], the level of knowledge of modern contraceptive methods was 59.1% for females and 65.6% for males and the best known method for teenagers was the male condom (94.2%). The school was the main source of information (46.3%), followed by the media (13.9%).

In our series, parental involvement was only 5.2%, unlike the data found by Drago in Italian schools (37%) in 2014 [7]. However, the rate of parents’ involvement in our series is five times higher than that found in Tanzanian universities (less than 1%) [8]. This variance is justified by the nature of our education in Africa, in a context where sex has been and continues sometimes to be regarded as a taboo subject in family discussions.

Contraceptive practices

The use level of contraception is one of the indicators which allow assessing the success of family planning programs. According to the results of the Demographic Health Survey in Benin in 2012 [3], the usage rate of contraceptive methods in the general population was 14% (9% for modern method and 5% for natural method). Women use essentially three modern methods: male condom (3.2%), injectable contraceptives (1.7%) and the birth control pill (1.3%). Contraceptive prevalence varies according to age and marital status. It’s higher among sexually active non-union women (39% between 15-19 years and 42.5% between 25-29 years of age) than among sexually active women in union (8.2% between 15-19 years and 12.9% between 25-29 years). Sexually active non-union women aged between 15-29 years increasingly make use of the male condom, while their counterparts who are in a union, increasingly rely on natural methods.

In our study carried out among young students of the medical and paramedical education aged 15 to 31, the usage rate of contraceptive method was 86.5%. This rate is influenced by the sex of the students (90.3% for male students and 82.3% for female students, p=0.043). Age, religion and marital status have no influence on the use of contraceptive methods. The male condom is the most used method (77.7%) followed by natural methods (56.4%). In the literature, the usage rate of contraceptive methods in a student environment varies from 34.2% to 96.3% [9-13].

Generally, the contraceptive prevalence is lower in the general population than in the student environment. This is the case of the demographic health survey in Benin in 2012 [3] and the survey in Senegal urban area in 2011 [14]. That study revealed that 20.4% of women used at least one contraceptive method. The reasons given in our study for the non-use of contraceptive methods were mainly the lack of knowledge about contraception and fear of side effects. In a survey carried out in Madagascar, the opposition of the spouse was the main obstacle to the use of contraceptive methods [15].

In our study as in most studies, the male condom has been the most widely used contraceptive method [7,11,13]. This important use of condoms at the expense of other methods could be explained by the fact that it lends itself fairly well to the conditions of the practice of sexuality at the beginning of affective life. It’s easy to access, designed for a one-time use and does not require prior medical consultation. Finally, its potential twofold purpose (contraceptive and preventive) proves to be an asset for its use.

In our study, natural methods, emergency contraception and the birth control pill respectively occupied the 2nd, 3rd and 4th places of contraceptive methods used by the students. According to Somba et al. in Tanzania in 2013 [8], the birth control pill also held the 4th position. The position of the birth control pill’s use in our investigation could be explained by the constraints related to its use. Indeed, it’s not easy to include the regular intake of birth control pill in a program already loaded with courses, internships and on-call duty at the hospital. The existence of side effects would also explain this low prevalence because 37.1% of users reported having experienced side effects after the use of birth control pill. As for natural methods, they often require knowledge of the menstrual cycle that is more taught to our interviewed.

In our series, males students make more use of the male condom whereas girls have recourse to the natural methods and sometimes to morning-after pills. The same observation is made in the literature [4,9,11,13]. The usage rate of emergency contraception among female students of the University of Parakou in Benin in 2014 was 18% [16].

This tendency could be explained by the fact that the male condom is often regarded as a male object and under the control of man. Women in our societies sometimes do not have the right to speak and issues related to sexuality are considered to be male.

Despite the high contraceptive prevalence in our study, we recorded some cases of unwanted pregnancies (6.5%), which led in most cases to

Table 2: Prevalence of different contraceptive methods used based on sex.

<table>
<thead>
<tr>
<th>Method</th>
<th>Male (140)</th>
<th>Female (116)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male condom</td>
<td>134 (95.7)</td>
<td>96 (82.8)</td>
<td>0.001</td>
</tr>
<tr>
<td>Natural methods</td>
<td>74 (52.9)</td>
<td>86 (74.1)</td>
<td>0</td>
</tr>
<tr>
<td>Morning-after pill</td>
<td>32 (22.9)</td>
<td>45 (38.8)</td>
<td>0.005</td>
</tr>
<tr>
<td>Contraceptive pills</td>
<td>13 (9.3)</td>
<td>18 (15.5)</td>
<td>0.128</td>
</tr>
<tr>
<td>Female condom</td>
<td>5 (3.6)</td>
<td>7 (6.0)</td>
<td>0.353</td>
</tr>
</tbody>
</table>
illegal induced abortions (66.7%). According to Wang et al., the risk of unintended pregnancy is most often high in the non-medical student population [12].

The high rate of induced abortion in our study could be explained by the long years of medical studies and the constraints linked to health studies (courses, internships, guards) which would be very difficult to manage with a pregnancy. In their series, Wang et al., found a higher prevalence of induced abortions than in our study (84%) [12]. These authors explained this high prevalence by the requirements of the Chinese culture and the socio-economic impacts of pregnancy. Indeed, pregnancy would upset the normal course of the student life, would be a stress factor and sometimes a school drop-out factor.

The incidence of sexually transmitted infection in our series is low (3.1%) compared to the national incidence (9%) [3]. This may be related to the high usage rate of condom by our interviewed.

Conclusion

The level of knowledge and contraceptive prevalence remain high within medical and paramedical training. These future health workers can serve as a relay for the promotion of contraceptive methods. There is still a need for further improvement in the practice of these contraceptives.

References