

Original Research Article

Knowledge and Practice of Hormonal Contraception among High School Teens

ABSTRACT

Background: Unintended pregnancy among sexually active school teens gives headache to many parents and is a devastating situation to girls themselves. The use of hormonal contraception (HC) is a way out, but promoting HC at this age is perhaps an intricate matter.

Objective: To assess the knowledge and practice of HC among high school girls in Rwanda.

Methods: 134 girls of 15-19 years old from two high schools confidentially self-responded a standardized close-open questionnaire about their knowledge and practice of HC.

Results: More than 87% of respondents had heard about HC, but not all could tell the exact role of taking contraceptive pills. The major source of information on contraception was media and health providers while parents and school education role was negligible. About 10.4% of respondents confirmed having used HC on own initiative or under the pressure of their partners. The reasons pushing girls to practice sex at this age is mostly poverty, luxury attraction or culture. More than half expect to use contraception provide the cost is affordable and they have comprehensive information about side effects and how to use it.

Conclusion: A fringe group of school teens actually practices HC. They need right information about it. However it remains controversial in Africa on whether or not promoting the use of contraception at secondary school level. After all, adequate educational intervention via any alternative ways to reduce unintended pregnancy rates among sexually active teens is of great importance.

Keywords: Teens, High school, Hormonal contraception, Knowledge, Practice

1. INTRODUCTION

The world statistics on pregnancy and childbirth issues indicate that about 16 million of girls aged 15 to 19 years give birth each year and the consequences are multiple [1]. Young girls who have a baby are very likely to withdraw their schools, and their children are likely to have poor education, bad behavioral and health outcomes [1-4]. Contraception practice (CP) is a way forwards preventing unintended pregnancies and their consequences as well. CP offers additional important health benefits in reducing pregnancy-related morbidity and maternal mortality, promoting women's empowerment and achieving long-term environmental sustainability [2-4]. Many methods of contraception are available and some are well designed for emergency use. Emergency contraception (EC) is the one that provides a last chance for women to prevent pregnancy after unprotected sexual intercourse [5-7]. Combining oral contraceptive pills and condom offers dual protection against pregnancy and sexually transmitted infections as well.

However, despite a high awareness of hormonal methods among youths, teenage pregnancy still remains a major socioeconomic and health problem worldwide. Unintended pregnancy is associated with many factors such frequency of sexual intercourse without reliable contraception, poor sexual communication between partners, excess of alcohol consumption, fear of hormonal contraceptives and poor school-based sexual education. Data from many surveys show much lower rates of contraceptives use among adolescents aged 14 to 19 years than among young adults aged 20 to 24.

In Rwanda, each year, about 47% of all pregnancies in the country are unintended, a proportion that varies slightly by province [8]. The government of Rwanda has made big effort to reducing unintended pregnancy in young girls by integrating sexual based education program in secondary school and education through the entire health care cycle. According to UNICEF report, that resulted in reduction from 74 births in 1960 to 26 births for every 1,000 girls between 15-19 years old in 2015 [9]. Since the contribution of hormonal contraception (HC) use is not known, this study aimed at exploring the level of knowledge and practice of HC among high school adolescent girls and describing the main related factors -pros and cons- sex practice and HC use.

2. METHODS

A cross sectional survey was conducted in 2016 in two secondary schools located in Rwamagana district, namely ASPESKA-School (Association des Parents de l'Ecole Secondaire de Karengwe), and LIR-School (Lycee Islamique de Rwamagana). It was designed to explore directly the degree of knowledge and practice of HC and indirectly the sexual behavior of female teens. A questionnaire with structured closed-ended questions was administered. The consent to participate was obtained directly from the participants and the authorization to conduct the study was obtained from schools' authorities. Participants were asked to answer themselves the questionnaire while being as objective and trueness as possible. All required measures were taken to ensure confidentiality. The participants had the right to skip any questions they may feel tricking while being as fair as possible. The sample size was calculated proportionally to the number of students aged 14-19 years in each school and considering 95% confidence limit, significance level at 5%. In total, 134 girls aged 14 to 19 years were recruited: 51 girls at ASPESKA-School and 83 girls at LIR-School. The data was analyzed using SPSS software v20 to describe weighted frequencies of the various measurement variables retained. Results are presented in graphics since non inference statistics was used.

3. RESULTS AND DISCUSSION

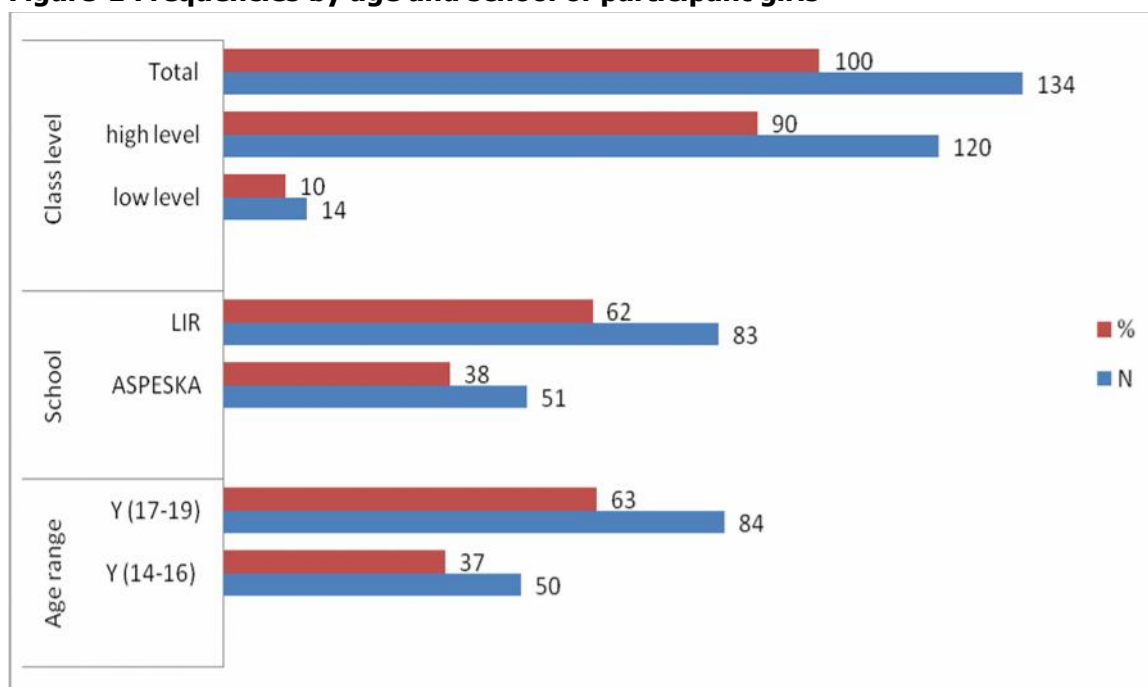
3.1. Participants' Demographic Characteristics

Fig-1 shows the repartition of the 134 girls recruited by age and class level. The age of participants fell in the normal window of secondary school students, which is 14-19 years in many countries. Among them, 50(37.3%) were in the age range 14-16 years and 84(62.7%)

90 between 17-19 years old; 14(10.5%) were at low school level (1-3 first years) and the
91 majority 120(89.5%) at high school level (last 4-6).

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93 **Figure-1 Frequencies by age and school of participant girls**



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96 **3.2. Knowledge about hormonal contraception**

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98 Fig-2 shows the frequencies observed about types, source of information and role of HC.
99 Out of 134 girls who voluntarily accepted to self-respond the questionnaire only 9.7% of
100 respondents had no idea about any type HC methods and they were the youngest of the
101 group. The methods cited were injectable products (54.5%), implant (44%), ECP (38.8%),
102 regular pills (36.6%), IUD with implant (9.7%), skin batch (3.7%), progestin only pills
103 (2.2%).

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105 The information was much more obtained from media (67.1%) and healthcare professionals
106 (43.3%) and less from school education (27.6%) and parents (9.7%). The majority (84.3%)
107 knew that HC is taken to prevent unplanned pregnancy, but 25.7% gave wrong answers
108 such as to treat HIV, to treat UTI, to treat malaria or to induce abortion. The 84.3% score
109 of who knew at least one method is higher or close to what has been found in other African
110 countries [10-16]. The finding also has highlighted the important place of media and low
111 intervention of parents and school education as sources of knowledge. Our previous survey
112 engaging University students had come up to a same fact [7].

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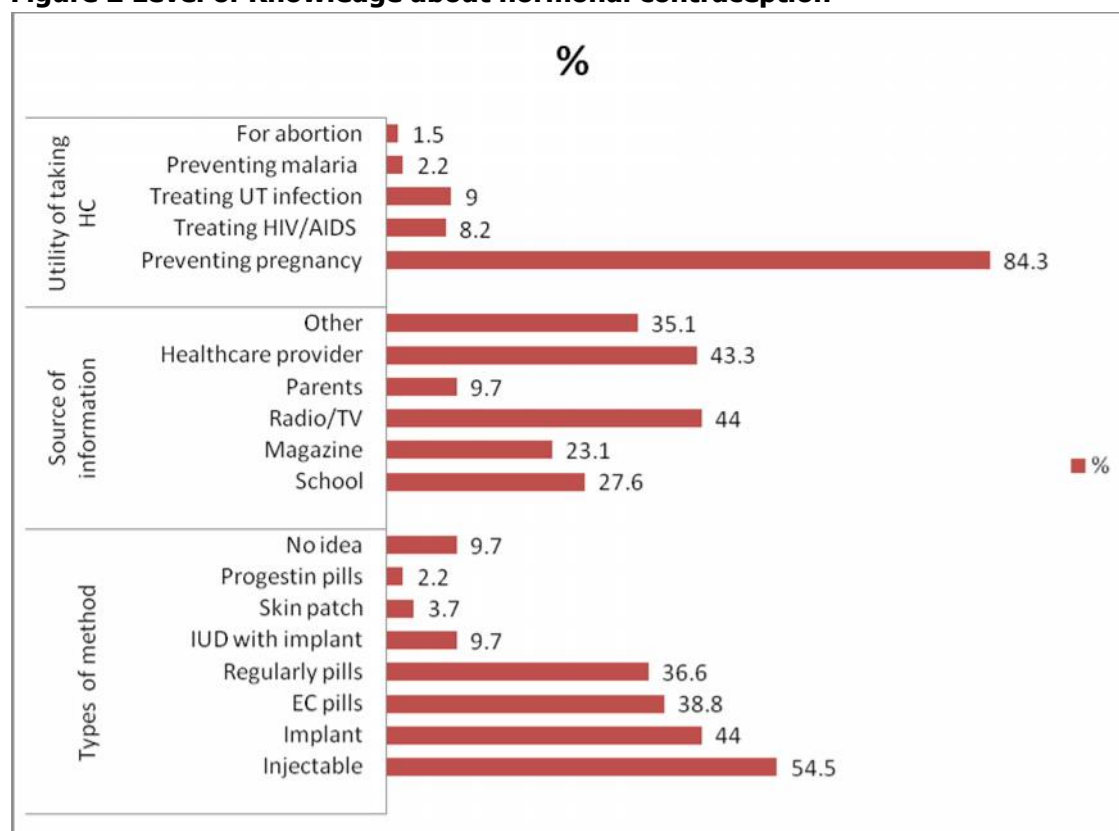
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Figure 2 Level of Knowledge about hormonal contraception

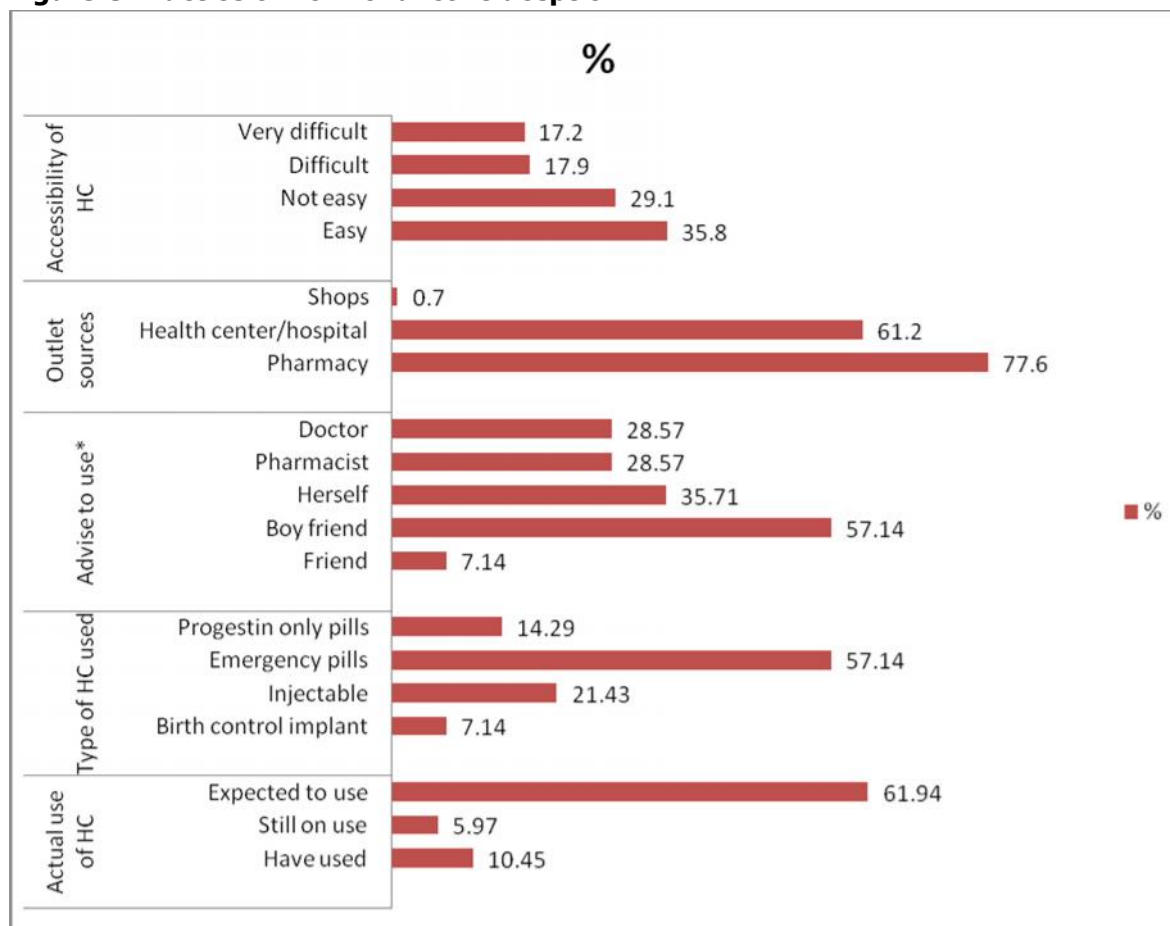


Questions about type and source of information were closed multichoice. Questions about utility to taking HC were open.

3.3. Actual practice of contraception and methods used

Fig-3 indicates that only 14(10.4 %) girls confirmed having used HC; 8(6%) were still under use, and 83(61.4%) are disposed to use it in future if they are provided with well documented information. Among 14 users, 8(57.14%) used ECP, 3(21.4%) injection, 2(14.3%) progestin only pills and 1(7.1%) birth control implant. The decision to take HC was inspired by their boyfriends (57.14%), by themselves (35.71%) or by a third person. The majority of all 134 girls knew that community pharmacy (77.6%) and healthcare providers (61.2%) are appropriate whereabouts to procuring HC products, but 0.7% thought they can get it in shops.

143 **Figure-3 Practice of hormonal contraception**



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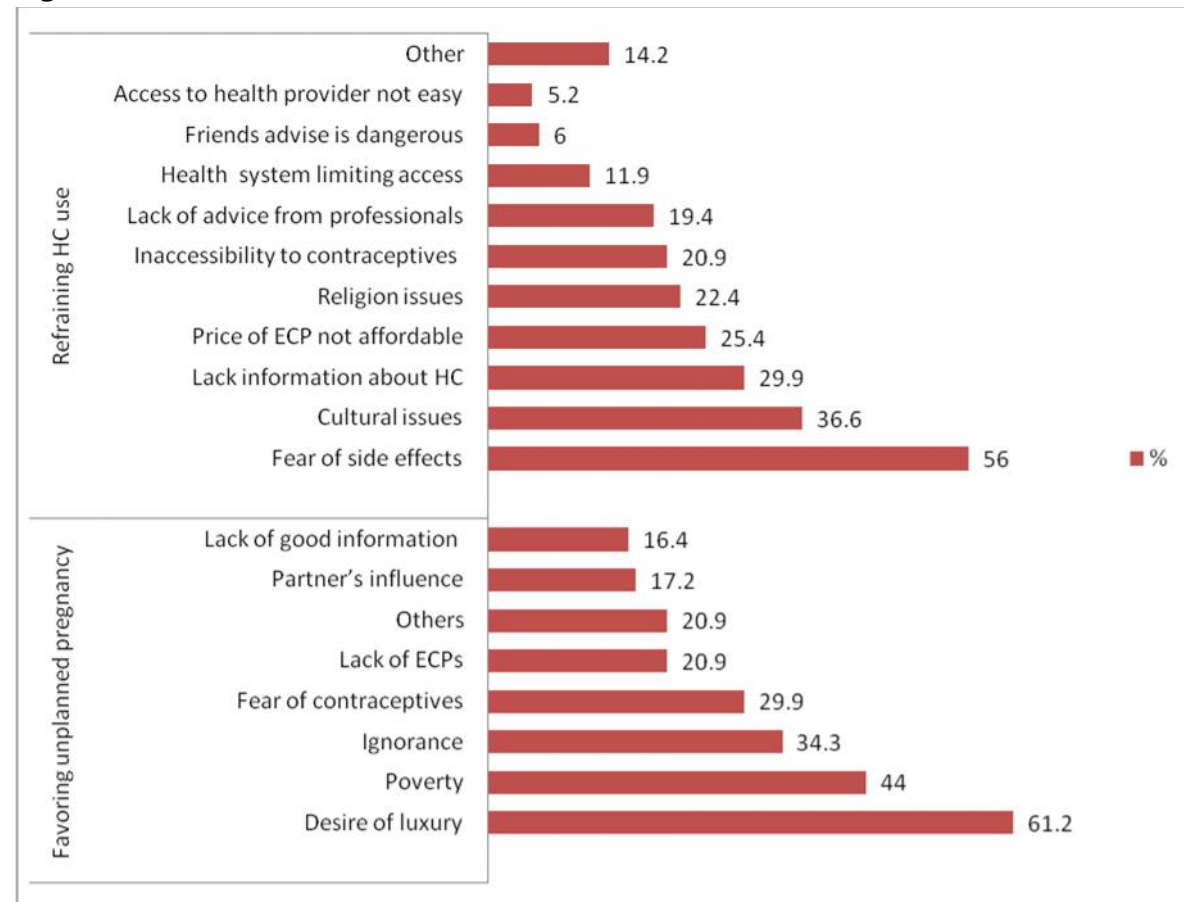
146 With regard to the rate of girls who had actually used a HC before this assessment, only
 147 14(10%) said they did it and 5 among them were still under use; the most used method in
 148 this case was ECP (8/14 or 57%). This fact shows that ECPs is getting well known and
 149 implemented in Rwanda among both male and female youths. Indeed, among the 14 girls
 150 who had used HC, 8 of them were counseled by their partners. In other African countries,
 151 contraception by injection was the most used at average rates close to 40%. In 2012, the
 152 Sex Information and Education Council of Canada (SIECC) reported that 47% of 15-19 year-
 153 olds teens had used condoms and oral contraceptives in the previous six months [17]. In
 154 USA, studies showed that in 2013 surveys, 19% of high school students had used birth
 155 control pill at their most recent sexual intercourse [18]. The difference may be related to
 156 the number of sexually active girls in each population. Concerning sexual activity in Rwanda,
 157 the overall proportion of youth 15-24 years who reported ever having sex was 31% for both
 158 male and female youth in 2009 or around 16% for only females [19, 20]. The experience of
 159 sexual activity reported by young Rwandan women in 2014 was only 14%, indicating the
 160 lowest levels in sub-Saharan Africa as compared for instance to Tanzania and Uganda with
 161 35-40% rates. Another report that reviewed Demographic and Health Survey data from 38
 162 developing countries found that the proportion of adolescents ages 15 to 19 who have ever
 163 been pregnant ranges from a low of 4 percent in Rwanda to a high of 43 percent in
 164 Mozambique [21].

3.4. Factors pushing to sex or refraining from contraception use

As shown in Fig-4, when asked the causes pushing some girls to get unplanned pregnancy, the respondents mentioned ignorance (34.3%), desire of luxury (61.2%), poverty (44%), lack of information about contraception (16.4%), unavailability of ECPs (20.9%), fear of using hormonal contraceptive pills (29.9%), and partner's influence (17.2%).

Many factors have been given for refraining teens from using HC. The main concerns were fear for side effects, culture and religion issues, lack of information and cost affordability. When asked about the accessibility or facility to obtain HC preparations, 35.8% said it is easy while others thought it is difficult to obtain them.

Figure-4 Associated risk factors



The questions were open; HC (hormonal contraceptives); ECPs (Emergency contraceptive pills)

Similar problems have been identified in other studies [22, 23]. The pricing system of contraceptive pills makes them inaccessible to teens. Making them affordable would necessitate some kind of governmental and NGOs interventions, but the feasibility should be screened.

In Rwanda there are a number of projects devised to fight against poverty through agriculture and livestock development for poorest rural populations. However, it is still far from the millennium goal of 75% reduction in poverty. Forced early marriage is of big

concern in developing world and particularly among Muslims; this is a cultural or religious issue [24, 25]. Fighting against this practice is a war declared by many activities all over the world. In Rwanda the official legal marriage age is 21 years old for girls.

Through media, there is often room about whether or not contraceptives may cause cancer and irreversible sterility. Scientifically, one study published by Mørch et al.[26] in N Engl J M concluded that "the risk of breast cancer was higher among women who currently or recently used contemporary hormonal contraceptives than among women who had never used hormonal contraceptives, and this risk increased with longer durations of use; however, absolute increases in risk were small". Many people use pills with no problems at all. However the most common side effects may be mood swings and depression, breast pain or tenderness, breast enlargement, fungal infections and cystitis, migraine or headache, feeling nauseous and vomiting, stomach problems and diarrhea, irregular bleeding, skin rash and acne.

CONCLUSIONS

From all reports, it is evident that a good number of high school girls worldwide are sexually active but only a small number is protected against getting pregnant. The driving force to sex practice among teens in developing countries is desire of luxury and poverty combined. This factor is very intricate and difficult to solve. The best way would be the engagement of governments in improving family welfare. Whenever it is difficult to contain the sexual desire, education about the protective methods including condom and hormonal pills may be absolutely recommended. Parents, schools and churches may bring about huge contribution in educating our girls how to live without looking for luxury and remain happy with what the family is able to offer. Promoting the use of hormonal contraception at this age is for sure an intricate matter, but adequate educational intervention on any alternative ways to reduce unintended pregnancy rates among sexually active teens is needed.

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