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Knowledge, Attitudes and Practices of Adolescent Girls on Contraception in Schools in Commune V of the District of Bamako

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Abstract **Original Research Article**

Introduction: In Mali, adolescent girls aged 15 to 19 contribute nearly 14% total fertility carried health risks for the mother and the fetus during pregnancy and childbirth. ***Purpose:*** To study knowledge attitudes and practices among adolescents relating to contraception in school in Commune V of the District of Bamako. ***Material and Methods:*** This was a cross-sectional study with an evaluative and descriptive aim on knowledge attitudes and practices among adolescents relating to contraception in school in Commune V of the District of Bamako. ***Results:*** In our study, 87% of adolescents knew about contraception and 29% usued to contraceptive method. The 16-17 age group represented 74%. 36.33% of adolescents girls had already had sexual intercourse. The most usued contraceptive method was the condom with 24. 34%. The use of contraception in school was influenced by sci o-cultural, religious weigtht and ignorance (lack of sex education). ***Conclusion:*** Knowledge of contraception does not equate to its pratical use among adolescents. The majority of teenage girls said they knew about contraception, of which only a Fès of them used a contraceptive.

Keywords: Knowledge, Attitudes, Practices, Contraception, Adolescent Girls, School Enviironment.

INTRODUCTION

Adolescents, long considered a matter of social concern in industrialized countries, have begun to be so in recent years in developing countries. The increased interest in adolescence is partly due to the large adolescent population. The current generation of young people is the largest ever to appear in the world. Almost half of the world's population (more than 3 billion people) is under the age of 25. Eighty-five per cent (85%) of young people live in developing countries [1]. Teenagers go through a training phase more than others. The 1.2 billion adolescents between the ages of 10 and 19 are brimming with energy and opportunity [2]. Given the rapid growth rate of the African population (doubling on average every 27 years) an African woman has on average 5 children, this adolescent population will be increasingly important [2]. Adolescents are increasingly contributing to population growth as fertility becomes increasingly early [3]. Around the world, significant efforts have been made to improve knowledge about early fertility and its consequences. These studies have not been limited to the demographic measurement of the phenomenon but have extended to the qualitative study of young people's aspirations [4]. In Mali, adolescent girls aged 15 to 19 contribute nearly 14% of total fertility [5]. This early fertility carries health risks for the mother and fetus during pregnancy and childbirth. Pregnancy-related problems are one of the leading causes of adolescent mortality [6]. Thus, an early pregnancy in a young married or unmarried woman can be a considerable obstacle to improving the quality of life. In general, adolescent girls around the world, and particularly those in developing countries, are exposed to reproductive health problems and their harmful consequences. In addition to health risks, there are psychological and

socio-economic problems that compromise the educational future of young girls [7]. In addition to risks at the individual level, early sexual activity is at the root of significant maternal and infant morbidity and mortality at the national level [7]. Since the negative consequences of such a situation on the well-being of the population could not be ignored, the progressive control of fertility and the safeguarding of the family appeared unavoidable [5]. Despite enormous efforts in reproductive health, the current use of modern contraception is 9.9% according to the Demographic and Health Survey (DHS) V in Mali in 2015 [8]. Available data show that current use of family planning accounts for about 40% of potential demand, or 25% of unmet needs [8]. In Mali, several studies have focused on the various problems related to teenage pregnancy. These various works have allowed us to have epidemiological, clinical and social data, including those of the DHS which provide basic statistics [3]. However, despite these studies, the socio-cultural aspect is not yet sufficiently studied. A study of adolescent girls' knowledge, attitudes and practices in schools on contraception can contribute to understanding the behaviour of this segment of the population and to providing appropriate solutions to improve their access to effective contraceptive methods. Women's education is undoubtedly a factor with a strong impact on quality of life, child survival and economic productivity [9]. Neglected education at the time of initiation into sexual life can have unfortunate long-term consequences [7]. This study is part of the research into the problems of sexuality in schools and finally to contribute to a better understanding of the theme in order to be able to help the competent bodies to provide adequate solutions. Faced with this rather worrying situation of young people, little work has been done on the problem of sexuality in schools in commune V of the district of Bamako.

MATERIALS AND METHODS

This was a descriptive cross-sectional study for evaluative purposes on knowledge attitudes and practices of contraception in schools with two quantitative and qualitative components, from May 11 to June 15, 2021. Two (2) secondary schools in commune 5 of the district of Bamako (the Kankou Moussa high school in Daoudabougou and the Castors high school in Badalabougou) served as a framework for study. The study population consisted of adolescent girls attending the two secondary schools surveyed. We included in our study adolescent girls as defined by the World Health Organization (young people aged 10 to 19 years) attending these institutions who agreed to participate in the study after obtaining permission from the administrative authorities of the institutions. Excluded from this study were:

- Adolescent girls who are absent or refuse to participate in the study, pupils over the age of adolescence,
- Adolescent girls who have decided to discontinue their participation in the study, - Very poorly completed questionnaires. The data were collected from a pre-tested individual questionnaire with adolescent students at another school to better tailor the questions. They were collected from focus group interviews and interviews with students and teachers. The results of the focus group interviews and interviews were transcribed and then entered on a computer to allow their exploitation from the qualitative analysis grids. The individual data has been digitally coded to allow its exploitation on a computer. Data was entered from Word.20 Software and analyzed from SPSS Version .20. Informed consent, anonymity and confidentiality were respected.

RESULTS

During our study, 300 adolescents girls investigated contraceptive knowledge, attitudes and practices in two schools in Commune V of the District of Bamako.

Table I: Distribution of adolescent girls by age group.

Age	Actual	Percentage
14 years - 15 years	45	15,00
16 years - 17 years	222	74,00
18-19 years	33	11,00
Total	**300**	**100,00**

The 16 to 17 age group was the most represented with 74.0% with extremes of 14 to 19 years and an average age of 16.50 years.

Of the 300 teenage girls who participated in our study, 74% came from Lycée Kankou MOUSSA and 26% from Lycée les Castors. In our study, 16% of adolescent girls attended grade 10, 26.33% attended grade 11 and 57.66% attended grade 12.

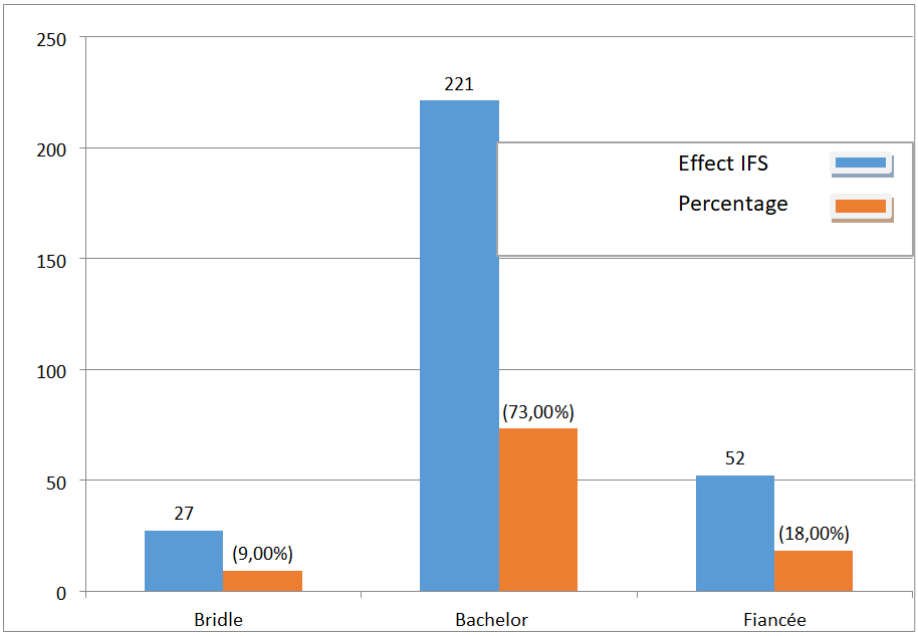

Figure 1: Distribution of adolescent girls by marital status

Almost all were single 73%.

In our series 36.33% had already had sex with 17 years as the age of first intercourse and 29.36% had used a condom during first intercourse. Adolescent girls had used condoms in 57.27% for protection against sexually transmitted infections and 42.73% to avoid unwanted pregnancies. Of the teenage girls who had not used condoms, 50% cited decreased pleasure as the reason, 10% genital irritation and 40% virginity. The teenage girls had a history of previous pregnancy in 26% of cases and of them 17.95% had a history of abortion. In our study 21.33 of the adolescent girls concerned had children.

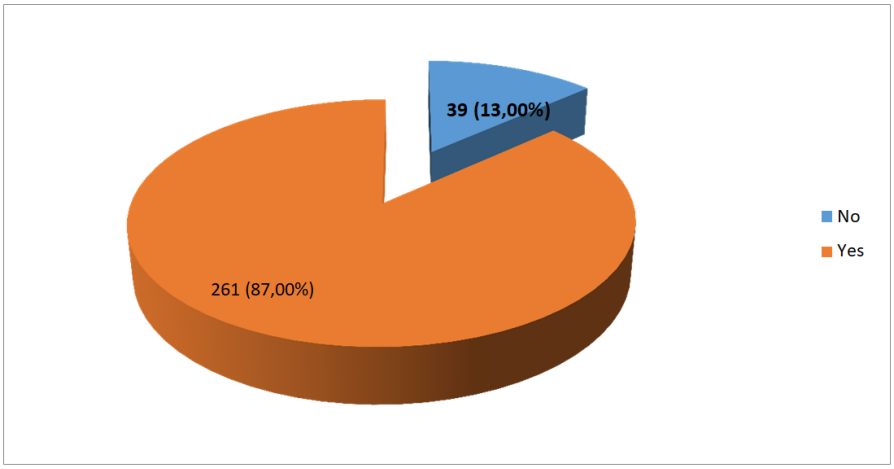

Figure 2: Distribution of adolescent girls according to their knowledge of contraception

Adolescent girls in 87% of cases had knowledge about contraception.

Table II: Distribution of adolescent girls by source of information on family planning (FP).

Sources of information on FP	Actual	Percentage
Media	128	42,66
Classmates	72	24,0
Health workers	60	20,0
School	20	6,66
Parents	20	6,66
TOTAL	**300**	**100,00**

The media and classmates were the main sources of information on contraception with 42.66% and 24.0% respectively.

Table III: Distribution of adolescent girls on their advice in relation to the age indicated for family planning

Age indicated for FP	Actual	Percentage
16-18 years	74	24,66
18-20 years	102	34,00
20-25 years	82	27,33
25 years and older	69	23,00
Total	**300**	**100,00**

The age of initiation of contraception according to adolescents is 18 to 20 years in 34% and 20 to 25 years in 27.33%. In our series 18% of adolescent girls were married and 7% were funded.

Table IV: Distribution of adolescent girls by knowledge of contraceptive methods

Knowledge of methods	Actual	Percentage
Condom	73	24,33
Pills	36	12,0
Injectable	22	7,33
Implants	8	2,66
Condoms + pills	61	20,33
Condoms pills + implants	47	15,66
Pills+condom+implant+IUD	26	8,66
Other	8	2,66
No response	19	6,33
Total	300	100,00

The method of contraception most known by all the adolescent girls surveyed was the condom (condom) with a frequency of 24.33%.

Table V: Distribution of adolescent girls by knowledge of contraceptive methods by institution

Knowledge of methods	Kankou Moussa High School Number of staff %	Beaver High School Number of staff %
Condom	52 23%	21 29%
Pills	30 13%	06 8%
Injectable	17 8%	05 6%
Implants	05 2%	03 4%
Condom+ pills	47 21%	14 18%
Condom+ pills+ implants	34 15%	13 17%
Condom+pills+injectables+DUI	16 7%	10 13%
Other	07 3%	01 1%
No response	14 6%	05 6%
Total	222	78

The advantages and disadvantages of contraceptive methods were known by the respondents of the two (02) establishments in 31.33% of cases. According to adolescent girls in both institutions, the consequences of early sexuality were communicable diseases in 53% of cases, unwanted pregnancies in 31.33% of cases and early school leaving in 15.66% of cases. In our series 81.33% of adolescent girls with an unfavorable opinion on the practice of induced abortion, 7.66% had a favorable and 11% had no opinion. In 66.66% of cases the adolescents had knowledge about the risks of induced abortion (especially death and infertility), in 12% they had no knowledge and in 12.33% they had no answer. Adolescent girls had received advice from their parents on sexuality in 21% of cases, no advice in 79% of cases and they had not given an answer in 10% of cases. In our study 8.33% of adolescent girls were in favor of premarital sex, 87% were against premarital sex and 5.33% did not give an answer. In 68.33% of cases adolescent girls used to discuss contraception with health workers or with their peers, 24% had no habit and 7.66% did not give an answer. Adolescent girls reported using a contraceptive method in 29% of cases and 71% reported not using any method of contraception.

Table VI: Distribution of adolescent girls by type of contraceptive method used.

Contraceptive methods used	Actual	Percentage
Condom	45	51,11
Pills	19	21,60
Injectable	12	13,63
IUD	-	-
Norplant	8	0,9
Traditional	4	0.45
Total	**88**	**99,65**

Condoms were the most used method with 51.11%, followed by pills with 21.60% and injectable contraceptives av3c 13.63%. In our series among adolescent girls who had used a method of contraception 61.36% had reported continuing with contraception compared to 38.63% who had given up.

Table VII: Distribution of adolescent girls by reasons for non-use of contraceptive methods

Reasons for non-use of contraceptive methods	Actual	Percentage
Fear of side effects	43	20,28
Cost and availability	12	5,66
Socio-religious environment	90	42,45
Lack of information	67	31,60
Total	**212**	**100,00**

Socio-religious environment (42.45%) and lack of information on contraceptive methods (31.60%) were the main reasons for not using contraception. In our series among adolescent girls who had used a method of contraception 34.10% had reported side effects compared to 65.10% who had reported no side effects.

Table VIII: Distribution of adolescent girls by type of side effects experienced by contraceptive method used.

Side effects/ Contraceptive methods	Spotting irritation				Nausea dizziness weight gain					
	EFF	%	Eff	%	Eff	%	Eff	%	Eff	%
Condom	14	46%	0	0%	0	0%	0	0%	0	0%
Pills	0	0%	4	13%	2	6%	3	10%	1	3%
Injectable	0	0%	5	17%	0	0%	1	3%	4	13%
Implants	0	0%	4	13%	0	0%	0	0%	3	10%
DUI	4	13%	1	3%	0	0%	0	0%	0	0%

The main side effects were genital irritation related to condom use in 46% of adolescent girls.

Table IX: Adolescent girls' views on barriers to contraception

barriers to contraception.	Actual	Percentage
Cost	11	3,66
Socio-religious environment	112	37,33
Fear of negative prejudice	39	13,0
Effects	23	7,66
Lack of information	53	17,66
Customs	61	20,33
Other	1	0,003
Total	**300**	**100,00**

The socio-religious environment was the first obstacle to contraception cited by adolescent girls 37.33%, followed by customs 20.33% and lack of information 17.66%. Compared to contraceptive use in schools, 27.70% of adolescent girls were in favor of 72.30% who were unfavorable.

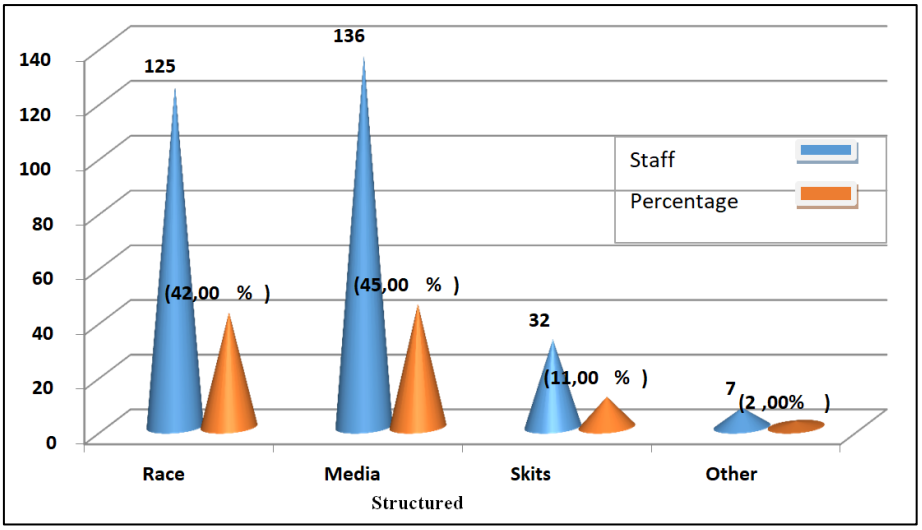

Figure 4: Adolescent girls' options for promoting contraception in schools

Wider information through the media and structured courses were the solutions most proposed by adolescent girls with 45.00% and 42.00% respectively.

In our series 70.70% of adolescent girls had knowledge about HIV/Widget sexually transmitted infections compared to 20.30% who had no knowledge at all.

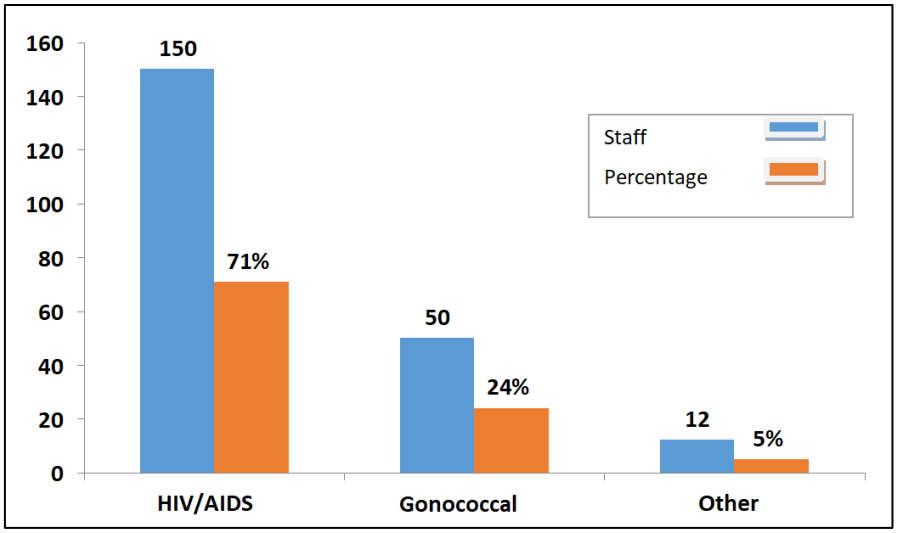

Figure 5: Distribution of adolescent girls by type of sexually transmitted infection

HIV-AIDS (71%) and gonorrhea (24%) were the two (02) most well-known STIs among adolescent girls.

Table X: Distribution of adolescent girls by source of information on sexually transmitted infections and HIV/AIDS

Sources of Information on Hiv/Aids STIS	Actual	Percentage
Media	165	55,0
School	65	21,66
Parents	20	6,66
Friends	40	13,33
Other	10	3,33
Total	**300**	**100**

The media was the main source for adolescent girls on HIV/AIDS STIs with 55.0%, followed by information received at school with 21.66 and information between friends with 13.33%.

DISCUSSION

During our study mostadolescent girls had mentioned that sexuality is a taboo subject that is not usually broached; this is why there is no sex education

in the home. Even with elders it is not easy to talk about sexuality, said one participant. Another added that in some families sex education is confused with prohibitions and bad things, the benefits of sexuality are never discussed. On the other hand, some believe that sex education in general is only done in families where parents lead a Western life. The non-use of contraceptives is due to religious, social and cultural considerations. Indeed, one participant stated that: "parents think that talking about sexuality with children would make them deviate from the wrong side and that the child will take a dark path that can lead to his loss. That's why, we manage with the means on board, we inform each other if not they do not tell us anything, she attested ". From our interviews, it appears that there are no courses on sex education in schools, the courses on reproduction given in biology are none other than anatomy and physiology. In this regard, one participant said: "We only give courses on reproduction". In this regard, we must congratulate the Non-Governmental Organizations (NGOs) that play a crucial role with many adolescent girls. Thus, one participant added: "At Marie Stop International, the youth project plays a very important role for us, they take all their time to listen to us and explain everything we need, I thank them very much". We conclude that sociocultural constraints and the lack of specific school curricula on sex education are a risk factor for adolescent girls and that such programmes are necessary to raise awareness among adolescent girls about the advantages and disadvantages of contraception. From our interviews, it appears that the lack of an appropriate framework for learning about sexuality is at the root of adolescent girls' risky sexual behaviour. It is only the media that provide this information without substantially meeting the expectations and needs of adolescent girls in terms of sex education. However, this often unstructured and poorly worded information can have contrary effects that can mislead adolescent girls into dangerous paths. Indeed, one participant said: "we have only one source of sex education, it is the media and that is not enough, we can be tempted to take action without measuring the consequences... ». Others added that the risky sexual behaviour of adolescent girls is marked by precocity, a carelessness under the pretext of civilization or modernity. They added that parents have a share of responsibility by keeping children in ignorance or isolation. We can conclude that the absence of sex education promotes risky behavior and early sexual intercourse. The majority of adolescent girls believe that contraception helps control births and fertility control and therefore avoid sexually transmitted infections and HIV/AIDS, unwanted pregnancies. It appears here as a safe and reliable method without inconvenience. Family planning is seen by others as a way for Westerners to get money, hence the words: "It is white people who make these for-profit contraceptives." On the other hand, some consider this practice as an act related to ignorance: "it is ignorance that makes people practice it because it has serious consequences," said one participant. In conclusion, we will say that the concept of family planning remains confusing for many adolescent girls. From our interviews, it appears that contraceptives have disadvantages such as sterility, bleeding, stomach aches, which can be avoided if we inquire at the level of specialized structures in this field. They argue that contraception has advantages but also many disadvantages. Abuse of use and misuse are factors that make contraception have consequences. Some advocate condoms only for unmarried youth. For other participants, condoms can break and put them at risk of sexually transmitted infections and HIV/AIDS and unwanted pregnancies. We conclude that the side effects of contraception are poorly understood among adolescent girls. Adolescent girls believe that having sex without contraception is a risky behavior. They mentioned several factors: ignorance, lack of awareness, poverty, naivety, prejudice about contraceptives, willingness to prove love to the partner. According to some participants: "It is especially the male partner who does not want protection, he asks for proof of love, finds that the condom is outdated and tasteless". Others believe that for religious reasons the use of contraception is discouraged. In this regard, one participant said: "it is not allowed to everyone, the Pope condemned it". Socio-cultural gravity is also an important factor. During our investigation we had to collaborate with the NGO "MARIE STOP INTERNATIONNAL" which had organized a free contraception day in a high school on the occasion of International Family Planning Week and this day no student came to us and one of the teachers told us: "young people are ashamed to go to health services to plan because they ask if you are married and if This is not the case, it is frowned upon." It appears that some girls do not use contraception because they want to have children out of interest "either to marry or to be maintained through children". The reasons for this risky behaviour are many and varied, as evidenced by the comments quoted above, hence the need for formal and structured sexuality education. We can conclude that the factors of non-use of contraceptives are multiple: economic, sociocultural, religious and infrastructural. With regard to condom use, adolescent girls in general are ready to accept it if the partner so wishes. But if he opposes it, it is then necessary to comply with his decision and this for several reasons because it is the man who finances the needs of the woman for some; while in others, it is a proof of love and trust. On the other hand, there are adolescent girls who demand condoms for sex because they are aware of the risks of sexually transmitted infections and HIV/AIDS and unwanted pregnancies. This is illustrated by the words of one participant: "condom or nothing". To conclude, we will say that not all adolescent girls always use condoms for different reasons. In addition to the focused group interviews, we discussed the subject with some teachers to finally get their opinion to complement those of the students. The information

received during our interviews was commented on below From our interviews, it appears that today the sexual behavior of adolescent girls leaves something to be desired, it is characterized by libertinism (a let go, disorder) and a lack of sex education both at the family level and at the school level. It is in this context that the first to speak stated that: "the time at school does not allow them to educate adolescent girls sexually. It is the parents who have to do it, but they are rather concerned with the search for daily gain. As a result, adolescent girls are left to fend for themselves and develop sexually critical and alarming behaviours." Speaking in the same vein, another teacher said: "The current sexual behavior of adolescent girls is catastrophic. For him, at 10 years old already the teenagers know the man, the school is filled with daughter-mothers and pregnant girls. They do not hesitate at all in front of their parents to arm in arm with their boyfriends. " In conclusion, it can be said that the risky sexual behaviour of adolescent girls is influenced by the lack of sex education. In this regard, our interviews show that the education, information and counselling given to adolescent girls in the area of sexuality are not only insufficient but also do not take into account all their sexual needs. For a better sex education of adolescent girls, our various interviewees made various proposals. Both sides find it desirable first to identify the various concerns about sexuality and then to create a coherent school curriculum by making sex education a subject in its own right. These courses may, for example, start at the level of the second fundamental cycle and continue in secondary or even higher schools. The involvement of NGOs, physicians and other experts in the field will be invaluable. Both also think that the subject of sexuality must be demystified by multiplying awareness campaigns among the population on the subject. Finally, some believe that families have a big role to play in the sex education of adolescent girls. Above all, they must control and guide them. We conclude that despite the efforts made in this area, much remains to be done, including the inclusion of sex education as a subject in its own right in the school curriculum. In our study, the 16-17 age group accounted for 74.00% of the sample. The average age was 16.50 years with extremes of 14-19 years, identical to that reported by Kané [14] which was 16.44 years. Abauleth [16] and 17.6 years in Miller [17] reported a mean age of 16.6 years and 17.6 years, respectively. In our study 18% of teenage girls were engaged and only 9% were married, girls who go to high school usually consider a university study that does not go hand in hand with marital obligations. Students from Lycée Kankou Moussa represented 74.00% of our sample. This can be explained by the fact that the Lycée Kankou Moussa is a public high school that receives all students while the Lycée Castors is a private institution. In our study, 36.33% of teenage girls said they had sex less once. The average age of first sexual experience was 17 years in our study. This is comparable to that found in Ghana 16.8 years old in the magazine Echange MAQ [11], Pichot [18] had reported in his study that 34% of adolescent girls had had their first sexual intercourse before 16 years. Bilodeau [4], Forget [12], and Kané [14] reported an average age for first sexual intercourse of 14 years, 15.7 years, 14.87 years, respectively. In our study, 87% of adolescent girls had heard of contraception. This rate is higher than that of Adam [15] and Kané [14] who had reported respectively 69.40%, 60%. This may be related to the diversity of information sources. In our study, 42.66% of adolescent girls had as a source of information on contraception the media, in 24.00% the source of information was friends, health facilities in 20.66%, school and parents in 6.66%. The school information rate is lower than that of Adam [15], Miller [16] and Kamtchouing [13] who reported respectively 31.16%, 42%, 21%. The source of adolescent girls' information on contraception in our school study appears to be weak, this may be related to the lack of a specific curriculum on contraception. Knowledge of contraceptive methods is not equivalent to their practical uses among adolescent girls. Indeed, 87% of the sample knew about contraception and among them, only 29% had used a contraceptive. This may be socio-cultural or religious or related to lack of information. Our rate is comparable to that of Berthé [6] which had brought in 90%. Similar results were found in Tanzania with a rate of 80% [11]. However, Miller [17] had yielded 17 %. Kamtchouing [13], Duprez [10] and Daures [7] each reported 41%. Condoms were the most widely used contraceptive method with 51.11%, followed by the pill 21.60% and injectable contraceptives 13.63%. The high rate of condom use can be explained by the availability and over-the-counter use of condoms. These results are comparable to those of Kané [14] where the condom was used in 77.3% of cases, followed by the pill 8% and injectables 12.7%. Abauleth [16] reported 55.7% for condoms, 13.76% for pills, 12.17% for injectables. Despite the efforts made in the field of family planning, religion and socio-cultural environment were the main reasons for non-use of these methods in 42.45% of cases, lack of information in 31.60%. Our results are comparable to those of CISSE.Y. A [3] who reported that religion was the main reason for not using contraception in 46.10%, followed by ignorance with 35.50%. The socio-religious environment; Customs, lack of information and fear of side effects were the reasons for disapproval of contraception. This may be related to the lack of communication and communication about contraception. In our study, 81.33% of adolescent girls disapproved of induced abortion compared to 7.66% who approved of it and 11.00% who did not give an answer. Many adolescent girls had claimed that it is social, economic and cultural gravity that drives girls to have abortions, most often under the direction of their mothers. During our study, some factors that may influence contraceptive use among adolescent girls were analyzed. Several factors (age group, field of study, knowledge of the existence of family planning services, existence of a partner, marital status of the

adolescent, socio-cultural environment, religion; lack of information; having sex with multiple partners) had an influence on contraceptive use.

CONCLUSION

Knowledge of contraception is not equivalent to its practical use among adolescent girls. The majority of adolescent girls reported knowledge of contraception, of which only a few were using a contraceptive. Adolescent girls had multiple sources of information about contraception, dominated by the media and peers. The reasons for disapproval of contraception were respectively the socio-religious environment; customs and ignorance.

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