



# Extrafamilial Communication and Risky Sexual Behavior of Adolescents in Urban Areas, Mont Ngafula Health Zone in Kinshasa

Sébastien Mazumba Mamba, Délicia Tshilomba, Omombo Kiyonge, Chantal Nyemba Tshitale, Augustin Kadiata Bukasa\*

Section of Nursing Sciences, The Higher Institute of Medical Techniques of Kinshasa, Kinshasa, Democratic Republic of the Congo  
Email: \*augustinkadiata@gmail.com

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## Abstract

**Introduction:** Among adolescents, engagement in risky sexual behavior is an important public health problem. This study aims to analyze the influence between extra-familial communication and the adoption of risky sexual behaviors among adolescents. **Method:** It is a descriptive-correlational and transversal type study. A survey was carried out in the Kindele health area of the Mont NGAFULA health zone. The population of our study is made up of all adolescents living in the Kindele health area of the Mont NGAFULA health zone, *i.e.* 748 adolescents of all sexes combined, including our sample, the total of which was 400 adolescents living in the neighborhood. Kindele in the commune of Mont Ngafula. **Results:** The results of this study demonstrate that there is both a positive and negative relationship between extra-familial communication and the sexual behaviors of adolescents in an urban environment. Concerning sources of information, very few adolescents, 7% to 10%, talk to parents about sexuality. Among the other main sources of information exploited by adolescents regarding sexuality, we have school, friends, television and other unspecified sources which are more exploited by adolescents. As for the influence of all these sources of information on risky sexual behavior, it remains partial when they are taken in isolation, therefore on average 40.4% by school, 18.6% by television programs, 22.5% through interviews with friends, 4.6% through colleagues, 3.4% through newspapers and 2.4% through the Internet, 1.3% through radio and 1% through sources non-specific. Among the risky sexual behaviors adopted by adolescents, we have 60.5% of cases of early sexual intercourse, 81.8% of cases of multiple partnerships and 83.4% of cases of non-use of condoms. **Conclusion:** We must strengthen the teaching program on life education and monitor its inte-

gration in all media and schools; create support structures for young people and adolescents (social promotion center, youth center, etc.) for the sustainability of information on sexual and reproductive health; strengthen awareness campaigns for young people through conference debates on sexual and reproductive health problems and organize training for parents in order to provide them with the necessary knowledge, which will allow them to dialogue with their children in the family without complexes. Finally, clean up the media in order to protect young people from any perverted information, as well as from programs that have no moral value for adolescents.

## Subject Areas

Reproductive Health

## Keywords

Extra-Familial Communication, Risky Sexual Behavior, Adolescent Sexuality

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## 1. Introduction

Adolescence is a period of transition between childhood and adulthood. Events that occur during this period of life can affect not only the well-being of the individual, but also jeopardize the health and socio-economic development of society. The behavioral and sexual difficulties that adolescents face make this transition phase a complex subject that gives rise to debate [1].

Indeed, adolescence constitutes a key period of experimentation and learning about social interactions between individuals, particularly romantic feelings and sexual relationships. This is therefore the ideal time to identify risks and sustainably adopt the notions of prevention, respect for others and one's own body [2].

Among adolescents, engagement in risky sexual behavior is an important public health problem. These risky sexual behaviors are all the more worrying as they are associated with the risk of induced abortion in girls. Often these abortions take place in unhealthy conditions, sometimes due to lack of money.

High-risk health behaviors among adolescents such as alcohol, tobacco and drug use, early onset of sexual behavior, Sexually Transmitted Diseases and early parenthood have been associated with violence. Analysis of the 1991 Youth Risk Behavior Survey found that adolescent boys who used alcohol were twice as likely to carry weapons or engage in fighting as female alcohol users [3].

The results of the study carried out in nursing schools in Kinshasa by Lekela cited by (Moussa SAMAKE, 2010) showed that at least 520 out of 1020 students interviewed, or 49.5%, had already carried out a criminal abortion. The same author citing Lina *et al.* confirms that one in five girls, or 19.6%, has already been pregnant at least once. Likewise, 11.6% of boys admitted to having made a girl pregnant. As for sexually transmitted diseases, 9.5% of girls and 11.3% of

boys have already suffered from a sexually transmitted disease [4].

Lower the age of entry into active sexual life, the higher the risk of having multiple partners. Multiple sexual partnerships are widely observed in the city of Kinshasa among young people both in schools and universities as well as in extracurricular environments. The author reports “that at least 50% of girls had on average three sexual partners and that boys had two”. And 48.4% of these partners have unprotected sex [5] (Georgetown University & Institute of Reproductive Health, 2011). For the (UN, 2011), this practice exposes 50% of adolescents to STIs and HIV/AIDS. In most cases, these sexual partners are even unaware of each other’s HIV status [6].

For Mpunga Mukendi *et al.* (2021) “young people engage in risky sexual behavior following a lack of communication with parents, a source of basic education on the one hand, and on the other hand following the influence of peers and media which, moreover, do not necessarily provide appropriate information to adolescents.” And this situation does not spare adolescents in the Mont-Ngafula health zone, particularly in the Kindele health area. Indeed, during our discussions with adolescents on sexual and reproductive health, during the activities of the Catholic Church organized to raise awareness among young people about STIs, we noted that many adolescents had an information deficit reliable on sexuality [7].

For their part, in addition to the financial reason, girls believe they have sexual relations before, to avoid the risks of sterility and myoma if marriage is delayed in coming on the one hand, and on the other hand, they think of expressing their beauty by living with two or three boys whom they consider to be their sponsors. As for boys, sexual intercourse during adolescence increases virility and prevents possible sexual impotence. The use of condoms, on the other hand, reduces sexual pleasure; thus the partners trust each other. The HIV screening test is considered by some to be the business of adult men or those suspected of having HIV/AIDS infection.

Currently in modern societies, adolescents face many problems at their age. These problems are generally transitional and are characterized by communication dilemma and identity crisis. This situation creates an ambivalence between family culture and the modernism in which we currently find ourselves. Research has begun to explore the impact of adolescents’ online experiences on their social and behavioral health, with approximately 95% of adolescents having access to an Internet-connected smartphone [8].

Data from National Demographic and Health Surveys carried out in some African countries showed the results that: among boys, the median ages at first sexual intercourse are lower in Congo and the DRC, in Central Africa, and in Benin than in Burkina Faso, Rwanda and in highly Islamized countries such as Chad, Senegal and Mali and several family, extra-family and individual factors influence risky sexual behavior there but the intensity and direction of the relationships observed do not necessarily converge [9].

In view of this modern influence, Frésard Nadège Kondé (2005) believes that “the lack of dialogue between parents and children constitutes a major obstacle to the latter’s lack of correct information on problems linked to sexuality”. The author mentions “shame, modesty, and fear as obstacles that prevent this dialogue.” And when adolescents don’t receive information at home, they seek it elsewhere, turning to peers, the media, or observing other adults. All sources can spread erroneous information and perpetuate negative myths, making young people vulnerable to unwanted and unprotected sexual experiences, with all the consequences that this entails: unwanted pregnancies, sexually transmitted infections and loss of self-esteem. But it is obvious that the information obtained in the extra-familial circuit is not all bad, some is beneficial for human development [10].

It is with this in mind that we conducted this study to verify whether extra-familial communication influences the adoption of risky sexual behaviors among adolescents. Because, given that young people represent a preferred target for prevention because it is during this period that representations linked to sexuality are constructed. It is important to help them acquire the keys to making informed choices adapted to the management of their sexual health.

## **2. Material and Method**

### **2.1. Description of the Research Area**

We carried out our investigation in the Kindele health area of the Mont NGAFULA health zone. This health area is located in the commune of Mont-Ngafula, in the city of Kinshasa in the Democratic Republic of Congo.

### **2.2. Target Population and Sample**

The population of our study consists of all adolescents living in the Kindele health area of the Mont NGAFULA health zone, *i.e.* 748 adolescents of all sexes including 298 boys and 450 girls.

We opted for accidental or convenience sampling to find the subjects in each avenue and select the individuals to be part of our sample, the total of which was 400 adolescents living in the Kindele district of the commune of Mont Ngafula.

The population of our study consists of all adolescents living in the Kindele health area of the Mont NGAFULA health zone, *i.e.* 748 adolescents of all sexes including 298 boys and 450 girls.

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The size of the sample, obtained according to the answers to these questions and making it possible to provide the desired proportions with the desired precision and the desired degree of confidence, will be calculated by the Fisher formula:

$$n = \frac{z^2 pq}{d^2}$$

With:

$n$  = the desired sample size (when the population size is greater than 10,000).

$z$  = the difference, generally set at 1.96 (or more simply 2.0) which corresponds to a confidence level of 95 percent, and in the case of our study, we took 2.

$p$  = proportion of the target population having a given characteristic. As we did not have data available, we used 50 percent (0.50).

$q = 1.0 - p$ .

$d$  = desired degree of precision, generally 0.05.

The sample size will be:

$$\begin{aligned} n &= \frac{(2)^2 (0.50)(0.50)}{(0.05)^2} \\ &= 400 \end{aligned}$$

### 2.3. Type of Study and Data Collection

The method used for this study is that of the survey, it allowed us to question the subjects who are part of the object of study. For this, the individual interview was considered for this purpose as a technique that could facilitate this investigation. Participants were invited to participate in an individual interview of approximately 15 to 20 minutes.

The individual interviews took place, depending on the participants' availability, in a room in the maternity ward reserved for this purpose.

### 2.4. Data Analysis

The data from the collection site recorded on the data collection tools by the investigators were compiled, coded, data entry was done using the Excel 2010 spreadsheet and SPSS version 20 software to analyze the identification variables of respondents.

First, we proceeded to describe the data by calculating the percentages; and secondly we approached bivariate analysis, where we crossed the different variables in order to establish the existence or not of significant links, there we used the 95% confidence interval are calculated with a risk of error Alpha set at 5%.

### 2.5. Ethical Considerations

From the start of our interviews, we took care to explain to the respondent what we would like to do in our research. In fact, the process consisted of requesting free and informed consent from those surveyed during the interview.

A consent form was made available to them, and in the same vein, we committed to respecting the principle of confidentiality and anonymity of the information collected, to answering questions that the respondent might ask, and to explain the methods of data collection. We also informed the respondent that it

was easy to refuse the interview or interrupt it at any time.

To do this, we chose a setting where the environment was calm, sheltered from noise and soliciting looks, and this in collaboration with the respondent.

### 3. Results

**Table 1** tells us that there are 228 adolescents, or 57% of girls compared to 172, or 43% of boys for all respondents. The most represented age is around 18; with 31% for both sexes, including 19.5% of girls and 11.5% of boys; while the least represented age is 15 years old, or 0.75% made up of girls only. The average age calculated is therefore 18.04 years.

**Table 2** shows us that adolescents who have monogamous parents are in the majority, *i.e.* 66.2%, including 29% for boys and 37.2% for girls; followed by those with polygamous parents, *i.e.* 9.7% including 4.2% for boys and 5.5% for girls. On the other hand, adolescents who have divorced parents and those who live in common-law relationships are less represented, that is to say 2.5% for the

**Table 1.** Distribution of subjects according to age and sex.

Age	Sex					
	Male		Feminine		Total	
	Eff.	%	Eff.	%	Eff.	%
15 years	0	0	3	0.75	3	0.75
16 years old	18	4.3	20	5	38	9.5
17 years	32	8	42	10.5	74	18.5
18 years old	46	11.5	78	19.5	124	31
19 years old	38	9.5	48	12	86	21.5
20 years	38	9.5	37	9.2	75	18.7
Total	172	43	228	57	400	100

**Table 2.** Distribution of subjects according to sex and marital status of parents.

Marital status of parents	Sex					
	Male		Feminine		Total	
	Eff.	%	Eff.	%	Eff.	%
Single	5	1.2	14	3.5	19	4.7
Monogamous married	116	29	149	37.2	265	66.2
Married polygamously	17	4.2	22	5.5	39	9.7
Separated	14	3.5	13	3.2	27	6.7
Divorced	4	1	6	1.5	10	2.5
Widowers	13	3.2	20	5	33	8.2
Civil union	3	0.7	4	1	7	1.7
Total	172	43	228	57	400	100

first category and 1.7% for the second category.

The information we draw from **Table 3** shows that 182 adolescents, or 45.5%, are informed of the signs of puberty at school; 98 adolescents, or 24.5%, do not have a specific source of information; while parents are cited by 40 adolescents, or 10%; friends come in fourth position with 33 adolescents or 8.25%; television comes next with 20 adolescents, or 5%; The Internet and newspapers come with 2.75% and 2.25% respectively, and are used more by boys than by girls. The Chi-square test gives the value of 19.628 with the df of 8, the p value is 0.12. This indicates that the difference according to the sources of information between girls and boys on the signs of puberty is not significant.

The results of **Table 4** tell us that 158 adolescents, or 39.5%, obtain information

**Table 3.** Comparison between sources of information on signs of puberty and the sex of adolescents.

Source of information	Sex				Total	
	Male		Feminine		Eff.	%
	Eff.	%	Eff.	%		
Not specified	34	8.5	64	16	98	24.5
Parents	9	2.25	31	7.75	40	10
Friends	19	4.75	14	3.5	33	8.25
Colleagues	2	0.5	4	1	6	1.5
Schools	85	49.41	97	42.45	182	45.5
Radio	1	0.25	0	0	1	0.25
Television	9	2.25	11	2.75	20	5
Internet	8	2	3	0.75	11	2.75
Newspapers (books)	5	1.25	4	1	9	2.25
Total	172	43	228	57	400	100

**Table 4.** Comparison between sources of information on adolescent sexual activity and gender.

Source of information	Sex				Total	
	Male		Feminine		Eff.	%
	Eff.	%	Eff.	%		
Not specified	2	0.5	5	1.2	7	1.7
Parents	7	1.75	21	5.25	28	7
Friends	38	9.5	52	13	90	22.5
Colleagues	8	2	13	3.2	21	5.2
School	65	16.25	93	23.25	158	39.5
Radio	0	0	3	0.7	3	0.7
Television	31	7.7	28	7	59	14.7
Internet	9	2.25	5	1.25	14	3.5
Newspapers	12	3	8	2	20	5
Total	172	43	228	57	400	100

on sexuality at school; 90 adolescents, or 22.5% by friends; 59 adolescents, or 14.7% through television; parents are cited by 28 adolescents or 7%; colleagues by 21 adolescents or 5.2%; newspapers per 20 adolescents or 5%; the internet by 14 adolescents, or 3.5%; 7 adolescents, or 1.7% through non-specific sources and finally radio at 0.7% dominated by girls. The Chi-square gives us the value of 14.149 with the df of 8, the value of the p value is 0.078. It appears that the difference between girls and boys regarding sources of information on sexual activity is not significant.

**Table 5** tells us that 164 adolescents, or 41%, had information on the mode of transmission of STIs and HIV/AIDS at school; 90 adolescents, or 22.5%, do not have a very specific source of information, while 70 adolescents, or 17.5%, talk about television, 32 subjects, or 8%, cited parents, newspapers are cited by 15 adolescents, or 3.75%, friends by 13 adolescents, or 3.25%, the internet by 9 subjects, or 2.25%, radio by 4 subjects, or 1%. The Chi-square value is 10.897 with the df of 8, the p value is 0.208. The difference between girls and boys regarding sources of information on the mode of transmission of STIs and HIV/AIDS is not significant.

The results of **Table 6** indicate that 15.25% of adolescents were influenced in their sexual life by information received from friends compared to 9%, 3.75% compared to 3.25% by colleagues, 23% compared to 10.75% through the life education course received at school, 0.7% versus 3.5% through radio broadcasts, 11.25% versus 5.25% through television broadcasts, 2.75% versus 3.75% through the Internet, 3.25 through reading newspapers and 0.5% versus 0.75% through non-specific sources.

The Chi-square test applied to these variables gives us the value of 11.888 with

**Table 5.** Comparison between sources of information on modes of transmission of STIs and HIV/AIDS and the sex of adolescents.

Source of information.	Sex					
	Male		Feminine		Total	
	Eff.	%	Eff.	%	Eff.	%
Not Specified	36	9	54	13.5	90	22.5
Parents	10	2.5	22	5.5	32	8.0
Friends	5	1.25	8	2	13	3.25
Colleagues	0	0	3	0.75	3	0.75
School	72	18	92	23	164	41
Radio	2	0.5	2	0.5	4	1.0
Television	31	7.75	39	9.75	70	17.5
Internet	7	1.75	2	0.5	9	2.25
Newspapers	9	2.25	6	1.5	15	3.75
Total	172	43	228	57	400	100



**Table 6.** Subject distributions according to the influence of sources of information on sexual life.

Source of information	Answers				Total	
	Yes		No		Eff	%
	Eff	%	Eff	%		
Not specified	2	0.5	3	0.75	5	1.25
Friends	61	15.25	36	9	97	24.25
Colleagues	15	3.75	13	3.25	28	7.0
School	92	23	43	10.75	135	33.75
Radio	3	0.7	14	3.5	17	4.2
Television	45	11.25	21	5.25	66	16.5
Internet	11	2.75	15	3.75	26	6.5
Newspapers	13	3.25	13	3.75	26	7.0
Total	242	60.5	158	39.5	400	100.0

the df of 7, the p value is 0.065, which shows that the difference between adolescents who are influenced by these sources of information and those who are not is not significant.

The information taken from **Table 7** shows us that 242 adolescents, or 60.5%, have already had sexual intercourse compared to 158, or 39.5%. Among them we find 130 girls, or 32.5%, and 112 boys, or 28%. Applying the Chi-square test gives us the value of 2.691, with the degree of freedom of 1, the p value is 0.101, which indicates a difference between boys and girls who are sexually active and those who are not is not significant.

The information from **Table 8** shows us that among the 242 adolescents who have already had sexual intercourse, 13 or 3.25% versus 6 or 1.5% have single parents, 160 or 40% versus 105 or 26.2% have monogamous parents, 19 or 4.75% versus 20 or 5% have polygamous parents, 19 or 4.75% versus 8 or 2% have separated parents, 6 or 1.5% versus 4 or 1% have parents divorced, 22 or 5.5% compared to 11 or 2.75% have widowed parents (ves) and 3 or 0.75% compared to 4 or 1% have parents who live in a common-law union. The Chi-square test gives the value of 5.305 with the df of 6, p value = 0.505. This shows that the difference between adolescents who are sexually active and those who are not according to the marital status of their parents is not significant.

It emerges from **Table 9** that 158 adolescents, or 39.5%, had not yet had their first sexual intercourse, while 108, or 27%, had it in the age group of 17 to 18 years, 69, or 17.25% in the 15 to 16 year old bracket, 42 or 10.7% in the 13 to 14 year old bracket, 23 or 5.7% in the 19 to 20 year old bracket. The Chi-square value is 8.219 with the df of 5, p value = 0.145. The difference between girls and boys in relation to the age group of first sexual intercourse is not significant.

The information taken from **Table 10** tells us that 158 adolescents, or 39.5%, do not have sexual partners; on the other hand, 116 adolescents or 29% have had

**Table 7.** Relationship between adolescent sexual activity and their gender.

Sexual activity	Sex				Total	
	Male		Feminine			
	Effect.	%	Effect.	%	Effect.	%
YES	112	28	130	32.5	242	60.5
NO	60	15	98	24.5	158	39.5
TOTAL	172	43	228	57	400	100

**Table 8.** Distribution of subjects related to the practice of sexual activity according to the marital status of the parents.

Marital status	Answers				Total	
	YES		NO			
	Eff	%	Eff	%	Eff	%
Bachelor	13	3.25	6	1.5	19	4.75
Monogamous married	160	40	105	26.2	265	66.2
Married polygamously	19	4.75	20	5	39	9.75
Separated	19	4.75	8	2	27	6.75
Divorcee)	6	1.5	4	1	10	2.5
Widower (ve)	22	5.5	11	2.75	33	8.25
Civil union	3	0.75	4	1	7	1.75
Total	242	60.5	158	39.5	400	100.0

**Table 9.** Distribution of subjects in relation to the age group of first sexual intercourse according to sex.

Age range	Sex				Total	
	Male		Feminine			
	Eff	%	Eff.	%	Eff	%
Never had sex	60	15	98	24.5	158	39.5
10 to 12 years	0	0	0	0	0	0
13 to 14 years old	20	5	22	5.5	42	10.5
15 to 16 years old	36	9	33	8.25	69	17.25
17 to 18 years old	48	12	60	15	108	27
19 to 20 years old	8	2	15	3.75	23	5.7
Total	172	43	228	57	400	100

occasional partners, including 79 girls or 19.75% and 37 boys or 9.25%. Furthermore, 126 adolescents or 31.5% live with usual partners including 75 boys or 18.75% and 51 girls or 12.75%; It should be noted that 198 of these adolescents each have at least 2 to 3 sexual partners. The application of the Chi-square test

**Table 10.** Distribution of subjects according to types of sexual partners in relation to gender.

Partner types Sexual	Sex					
	Male		Feminine		Total	
	Effect.	%	Effect.	%	Effect.	%
No partner	60	15	98	24.5	158	39.5
Occasional partner	37	9.25	79	19.75	116	29
Regular partner	75	59.52	51	40.47	126	31.5
Total	172	43	228	57	400	100

**Table 11.** Distribution of subjects according to the use of condoms with regard to sex.

Answers	Sex				Total	
	Male		Feminine		not	%
	NOT	%	Not	%		
YES	15	6.19	25	10.33	40	16.5
NO	97	40	105	43.3	202	83.4
TOTAL	112	46.2	130	53.7	242	100

**Table 12.** Distribution of subjects according to the influence of sources of information related to risky sexual behavior.

Sources of information	Risky sexual behaviors					
	Early sexual intercourse		Multi partnership		Non-use of condom	
	Eff	%	Eff	%	Eff	%
Not specified	2	0.8	3	1.5	2	0.9
Friends	61	25.2	65	32.8	50	24.7
Colleagues	15	6.1	9	4.5	7	3.4
Schools	92	38	76	38.3	91	45
Radio	3	1.2	3	1.5	3	1.4
Television	45	18.5	32	16.1	43	21.2
Internet	11	4.5	5	2.5	1	0.4
Newspapers	13	5.3	5	2.5	5	2.4
Total	242	60.5	198	81.8	202	83.4

gives the value of 11.765 with the df of 2, p value = 0.003; therefore the difference between boys and girls regarding the types and number of sexual partners is significant.

The information taken from **Table 11** shows us that 40 adolescents, or 16.5%, use condoms compared to 202, or 83.4% of the adolescents surveyed. Among them, we have 15 boys, or 6.19%, and 25 girls, or 10.33%, compared to 97 boys,

or 40%, and 105 girls, or 43.3%. The Chi-square test gives the value of 11.101 with the df of 1, p value = 0.004. The difference between boys and girls who use condoms and those who do not is significant.

The results of **Table 12** show us that 242 adolescents out of 400, or 60.5%, had sexual intercourse following information from the extra-familial environment. Of this number, 198 adolescents, or 81.8%, experienced multiple partnerships and 202 adolescents, or 83.4%, did not use condoms during sexual intercourse.

These adolescents were more influenced overall by information received at school at 40.4% on average, by friends at 27.5% and by television at 18.6%.

#### 4. Discussion

The results of our study allow us to note that adolescents of both sexes were interviewed in this study; we realize that the proportion of girls was 228, or 57%, and that of boys was 172, or 43% overall. This situation is explained by the fact that parents in urban areas have become aware that girls' studies are as important as those of boys. Regarding age, we find that the most represented age is 18 years old with 31% for both sexes. This is explained by the fact that a child at this age already sees himself as an adult and seeks to have an identity. Regardless, we also had adolescents aged 15 to 16 among the respondents. A similar study conducted on a final sample that included 27 independent cross-sectional studies involving a total of 67,407 adolescents showed very similar results (age of half: 15.5 years, 12.6 to 18 years, and 51.7% girls, 57.2% White) [11].

All aspects of parents' marital status are represented in girls and boys. But, the strong trend is found among adolescents who have monogamous parents with 66.2% including 29% among boys and 37.2% among girls.

The analysis carried out on the sources of information as shown in **Tables 3-5** separately indicate that 182 adolescents or 45.5% receive more information on the signs of puberty at school; 98 adolescents or 24.5% by non-specific sources. As for information on sexual activity, 158 adolescents or 39.5% obtained it at school, 90 or 22.5% from friends and 59 or 14.7% from television. Regarding information on the modes of transmission of STIs and HIV/AIDS, 164 adolescents or 41% obtained it at school, 90 or 22.5% from non-specific sources and 70 adolescents or 17.5% from television.

By comparing the results of these three tables, we notice that the sources of information most used by adolescents are: school, friends, television and other non-specific sources.

The information obtained at school is justified by the fact that currently, most schools have integrated into their curriculum the life education course through which adolescents receive information on certain aspects of sexual health. This is consistent with the idea of Kabengele (2006), who states that "at the end of the cycle of secondary education, the subject must have acquired sufficient intellectual training that can enable him to grasp the various problems that arise in its environment, in the community." This environment can be internal or external

to the individual [12]. As for friends, (Anna Pinelli, Catherine Sanejouand, 2010) state that the more the child progresses towards adolescence, the more the influence of the adult becomes restricted and the more that of peers becomes determining [13].

The influence of sources of information on the sexual behavior of adolescents tells us in **Table 6** that 0.5% of adolescents were influenced by non-specific sources, 15.25% of adolescents were influenced in their sexual life by friends, 3.75% by colleagues, 23% by the life education course, 0.7% by radio broadcasts, 11.25% by television, 2.75% by the Internet and 3.25 by reading newspapers. The Chi-square gives the value of 11.888 with the dof of 1 at the significance level of 0.065.

Taken in isolation, we note that these sources of information each have a partial influence on the sexual lives of adolescents, because all the proportions obtained are less than 60%; while overall their influence is very remarkable, *i.e.* 60.5% against 39.5%. This allows us to affirm that extra-familial communication has an influence on the sexual behavior of adolescents in the neighborhood.

These results corroborate with those found by (Rivas-Koehl *et al.*, 2023) where they found cybersexual violence (CVV) victimization and pornography use in early adolescence were associated with the use of condoms, contraceptive use, and pre-intercourse alcohol and drug use among US high school students (n=974). Furthermore, their results suggest that CVV and porn use may be associated with risky sexual behaviors for some adolescents [8]. Vannucci *et al.*, (2020) agree that there are positive, small to medium correlations between social media use and engagement in risky behaviors in general (r: 0.21, 95% CI: 0.16 - 0.25), substance use (r: 0.19, 95% CI: 0.12 - 0.26), and sexual risk behaviors (r: 0.21, 95% CI: 0.15 - 0.28) [12].

Taking into account the influence of friends and colleagues, (Anna Pinelli, Catherine Sanejouand, 2010) indicates that adolescents can adopt two attitudes among the peer group, conformism and protest. This allows him to determine his self-image and find his own identity [13].

Furthermore, adolescents integrated into the norm of approval of increasing sexual practice (AOR 1.61; 95% CI: 1.04 - 2.50), increasing the dosage of the network link (AOR 1.12; 95% CI: 1.06 - 1.19), and homogeneous networks (AOR 1.58; 95% CI: 0.98 - 2.55) are more likely to engage in risky sexual behavior. Engagement in the growing number of sexuality discussion networks was found to engage in protective measures against risky sexual behavior (AOR 0.84; 95% CI: 0.72 - 0.97) [14].

Regarding the sexual behaviors adopted by adolescents, the analysis of **Table 7** and **Table 8** shows us that 242 adolescents, or 60.5%, have already had sexual intercourse in their lives compared to 158, or 39.5% teenagers. We find the predominance of these reports among adolescents whose parents are monogamous with 40%, this for the simple reason that adolescents were the majority among the respondents.

The Chi-square test shows a significant difference; which shows that the marital status of parents influences the sexual behavior of adolescents. We believe that apart from the influence produced by extra-familial sources of information, certain other factors can lead adolescents to risky sexual behavior during the adolescent period. One study supports this by demonstrating that factors such as lack of social support (AOR: 5.59% CI: 2.71 - 11.533), living outside the family (AOR: 1.93; 95% CI: 1.21 - 3.07), experience of parental neglect (AOR: 1.87, 95% CI: 1.18 - 2.94), and alcohol consumption (AOR: 2.55, 95% CI: 95%: 1.55 - 4.4) are statistically associated with risky sexual behavior [15].

In addition, (Elise Amoin Kacou, 2020) explains that the weakening traditional modes of social control, the hasty emancipation of young people from their families as well as the decline in the involvement of members of the extended family in socialization result in sexuality at high risk of STIs, notably HIV/AIDS. Furthermore, this sexuality of young single people often occurs at an early age where their physical immaturity and their lack of in-depth information about AIDS expose them to more risks. So, due to modernization, these norms of sexual behavior are undoubtedly evolving. Sexual relations formerly advocated exclusively within the framework of marriage, particularly among girls, are tending to fade with a growing proportion of young people engaging in premarital sexuality [16].

**Table 9** revealed that 27% of adolescents have their first sexual intercourse between the ages of 17% and 18%, 17.2% between the ages of 15% and 16%, 10.5% between the ages of 13% and 14%, and 5.7% between 19 and 20 years old. These results are similar to those obtained by (Kobelembe, 2013), which indicate that “the first sexual experience is experienced between 15 and 16 years of age respectively in girls and boys” [17]. For (Rodrigues *et al.*, 2005) “generally speaking, first sexual relations among young people are not generally planned”. While boys can have them deliberately, girls sometimes have them through coercion. We therefore see that a small percentage of adolescents wait until age 20 to have sexual intercourse [18].

Concerning the types of sexual partners and the precautions taken, **Table 10** and **Table 11** respectively indicate that 126 adolescents, or 31.5%, had habitual partners, while 116, or 29%, had occasional partners; 198 of these adolescents, or 81.8%, each have at least 2 to 3 sexual partners. The Chi-square test shows that the difference between girls and boys regarding the type and number of sexual partners is significant. For (Rodrigues *et al.*, 2005), girls have sexual relations with several partners whom they consider to be sponsors; on the other hand, for boys it is an expression of virility. 40 adolescents, or 16.5%, use condoms during sexual intercourse, including 15 boys, or 6.19%, and 25 girls, or 10.33%, compared to 202, or 83.4%, including 105 girls, or 43.3%, and 97 boys or 40% [18].

Despite knowledge of the risks associated with sexual intercourse, the use of condoms still remains very low among sexually active young people. If young girls can negotiate the use of condoms for fear of becoming pregnant and being

rejected by society, for boys, the search for pleasure is fundamental in any sexual act. They believe that condoms reduce a man's virility. "This search for pleasure encourages young girls to adopt risky sexual behaviors" [19].

The Chi-square test ( $\chi^2$ ) applied to this subject shows that the difference between boys and girls regarding the use of condoms is significant. Non-use of condoms constitutes risky sexual behavior for adolescents in the neighborhood. In Ivory Coast, a study shows that the timing of premarital sexual initiation determines whether or not to use a condom. Thus, young people who start their sexual life early are more inclined not to use a condom at the time of this occurrence. By focusing on multiple sexual partners, the results show that the adoption of such behavior comes from individual decisions influenced mainly by the family environment and the socio-economic context [16] (Elise Amoin Kacou, 2020). A study carried out in Bamako in Mali adds that despite good knowledge that adolescents have about sexually transmitted infections and AIDS, adolescents have high risk behavior for this 80.6% of adolescents did not use contraception during their first sexual intercourse [20].

The analysis of **Table 12** shows us that, in all the results obtained, 242 adolescents out of 400, or 60.5%, had sexual intercourse following information from the extra-familial environment. Of this number, 198 adolescents, or 81.8%, had several sexual partners and 202, or 83.4%, did not use condoms during sexual intercourse. Considering this, we affirm that Kindele adolescents were influenced to engage in risky sexual behavior by information from the extra-familial environment. We justify this situation by the fact that, the taboo nature observed in the family circle on the one hand and the mark of youth supervision structures on the other hand, reduce the chance for adolescents to obtain reliable information in relation to with sexuality. Family communication is a bond between parents and their child, of which the child needs sociability, attachment with his parents and relationships that are to follow in a family institution system. It aims to prevent and guide children away from danger and risky behavior [21] [22].

## 5. Conclusions

This study made it possible to conclude to a certain extent that extra-familial communication has a positive influence on the risky sexual behavior of adolescents. To promote sexual and reproductive health, adolescents need reliable and appropriate information. This must be given to them firstly at the level of the family circle, and secondly at the level of other recognized support structures such as: schools, health structures; churches.... But outside of these structures, young people also obtain information through the media, friends, colleagues....

Its involvement in relation to community health is at three levels which are: Education and information, Prevention and health promotion, Research.

In order to jointly solve their problems having an impact on health, today the community health expert must leave his environment and go towards the com-

munity. Identifying risky sexual behaviors will help prevent the risks associated with early sexual activity, including STIs and HIV/AIDS, early and unwanted pregnancies and their consequences.

There is a need to strengthen the teaching program on life education and monitor its integration in all media and schools; create support structures for young people and adolescents (social promotion center, youth center, etc.) for the sustainability of information on sexual and reproductive health; strengthen awareness campaigns for young people through conference debates on sexual and reproductive health problems and organize training for parents in order to provide them with the necessary knowledge, which will allow them to dialogue with their children in the family without complexes. Finally, clean up the media in order to protect young people from any perverted information, as well as from programs that have no moral value for adolescents.

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### Conflicts of Interest

The authors declare no conflicts of interest.

### References

- [1] Camara, F. (2017) Comportements sexuels à risque chez les adolescents de niveau collégial en Guinée: Exploration des facteurs personnels et interpersonnels associés. Mémoire de Master, Université Laval.  
<https://corpus.ulaval.ca/entities/publication/7c1f7904-4e1c-4ee4-b370-314dc7f935d7>
- [2] CRIPS SUD (2019) La santé sexuelle des jeunes: État des lieux.  
<https://sud.lecrips.net/wp-content/uploads/2019/11/Dossier-sant%C3%A9-sexuelle-des-jeunes.pdf>
- [3] Melzer-Lange, M.D. (1998) Violence and Associated High-Risk Health Behavior in Adolescents. *Pediatric Clinics of North America*, **45**, 307-317.  
[https://doi.org/10.1016/S0031-3955\(05\)70007-9](https://doi.org/10.1016/S0031-3955(05)70007-9)
- [4] Samake, M. (2010) Connaissances et attitudes sexuelles des élèves face au VIH/sida: cas des établissements d'enseignement secondaire de bougouni. Thèse de Doctorat, Université du Mali.  
<https://www.bibliosante.ml/bitstream/handle/123456789/1227/11M71.pdf;jsessionid=D2279C0F24BA80E662B9035BB98BD547?sequence=1>
- [5] Université de Georgetown and l'Institut de la Santé Reproductive (2011) Mon Corps qui Change: Connaissance de la puberté et fertilité pour les jeunes. 2ème édition.  
[https://www.irh.org/wp-content/uploads/2013/04/My\\_Changing\\_Body-French\\_FE\\_B2012.pdf](https://www.irh.org/wp-content/uploads/2013/04/My_Changing_Body-French_FE_B2012.pdf)
- [6] ONU (2011) La lutte contre le VIH/sida produit des résultats, selon un rapport de l'ONU. <https://news.un.org/fr/story/2011/11/233402>
- [7] Mpunga, D.M., Chenge, F.M., Mapatano, M.A., Mambu, T.N.M. and Wembodinga,



- G.U. (2021) Connaissances, attitudes et pratiques des adolescents et des enseignants en matière de contraception: Résultats d'une étude qualitative réalisée en République Démocratique du Congo. *Pan African Medical Journal*, **38**.  
<https://doi.org/10.11604/pamj.2021.38.121.21678>
- [8] Rivas-Koehl, M., Valido, A., Espelage, D.L. and Lawrence, T.I. (2023) Adults and Family as Supportive of Adolescent Sexual Development in the Age of Smart-phones? Exploring Cybersexual Violence Victimization, Pornography Use, and Risky Sexual Behaviors. *Archives of Sexual Behavior*, **52**, 2845-2857.  
<https://doi.org/10.1007/s10508-023-02618-2>
- [9] Rwenge, M. (2013) Comportements Sexuels parmi les Adolescents et Jeunes en Afrique subsaharienne Francophone et Facteurs Associés. *African Journal of Reproductive Health*, **17**, 49-66.
- [10] Nadège, F. (2009) Pudeur et intimité en collectivité, avec les enfants de 6-12 ans. Quel regard porter en tant que professionnel?  
[https://sonar.ch/rerodoc/278383/files/Fresard\\_N\\_2016.pdf](https://sonar.ch/rerodoc/278383/files/Fresard_N_2016.pdf)
- [11] Vannucci, A., Simpson, E.G., Gagnon, S. and Ohannessian, C.M. (2020) Social media Use and Risky Behaviors in Adolescents: A Meta-Analysis. *Journal of Adolescence*, **79**, 258-274. <https://doi.org/10.1016/j.adolescence.2020.01.014>
- [12] Kabengele, T. (2006) Etude des facteurs motivationnels des rapports sexuels précoces chez les adolescents scolarisés et leurs attitudes face à la prévention des infections sexuellement transmissibles à Tshikapa. CARAS, Université de Kinshasa.
- [13] Pinelli, A. and Sanejouand, C. (2010) Un être Social. *Dans Porter le bébé vers son autonomie*, Collection: 1001 bébés, Éditeur Érès, 85-116.  
<https://doi.org/10.3917/eres.pinel.2006.01>
- [14] Asrese, K. and Mekonnen, A. (2018) Social Network Correlates of Risky Sexual Behavior among Adolescents in Bahir Dar and Mecha Districts, North West Ethiopia: An Institution-Based Study. *Reproductive Health*, **15**, Article No. 61.  
<https://doi.org/10.1186/s12978-018-0505-8>
- [15] Srahbzu, M. and Tirfeneh, E. (2020) Risky Sexual Behavior and Associated Factors among Adolescents Aged 15-19 Years at Governmental High Schools in Aksum Town, Tigray, Ethiopia, 2019: An Institution-Based, Cross-Sectional Study. *BioMed Research International*, **2020**, 1-8. <https://doi.org/10.1155/2020/3719845>
- [16] Kacou, E.A. (2020) Comportements sexuels à risque au temps du VIH/Sida: Le cas des jeunes en Côte d'Ivoire. Thèse de Doctorat, Université Panthéon-Sorbonne—Paris I, Paris. <https://theses.hal.science/tel-02978732v1/document>
- [17] Kobelembe, F. (2013) Le comportement sexuel des adolescents à Bangui (RCA). *African Population Studies*, **20**.
- [18] Rodrigues, I., Dedobbeleer, N. and Turcot, C. (2005) L'usage du condom chez les adolescentes consultant pour une contraception orale dans la région de Montréal. *Canadian Journal of Public Health*, **96**, 438-442.  
<https://doi.org/10.1007/BF03405184>
- [19] Abega, S.C. and Magne, E.K. (2006) Le premier rapport sexuel chez les jeunes filles à Yaoundé. *Cahiers d'études Africaines*, **46**, 75-93.  
<https://doi.org/10.4000/etudesaficaines.15132>
- [20] Atoï, D. (2021) Evaluation du comportement sexuel des adolescents en milieu scolaire dans la commune I du district de Bamako en 2019. Thèse de Doctorat, Université des Sciences des Techniques et des Technologies de Bamako.
- [21] Narimane, D. and Tinhinane, K. (2018) Le rôle de la communication familiale dans la prévention des conduites à risque chez les adolescents. Etude de huit cas réalisé

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<https://docplayer.fr/203855336-Le-role-de-la-communication-familiale-dans-la-prevention-des-conduites-a-risque-chez-les-adolescents.html>

- [22] Franck, C.M.M.W., Albert, M.M., Valentin, K.B., *et al.* (2021) Factors Associated with Risky Sexual Behavior among Adolescents in Mbujimayi “Case of the Pupils of the School Complex of Manzonzo” (Democratic Republic of Congo). *Open Access Library Journal*, **8**, 1-8. <https://doi.org/10.4236/oalib.1107152>