

## Gynecology &amp; Reproductive Health

# Knowledge, Attitudes and Practices of Adolescent Girls with Regard to Sexually Transmitted Infections in N'djamena Lycée-Collège Notre Dame de l'Assomption

Kheba Foba<sup>1,2</sup>, Ildjima Ousman kadallah<sup>1,2</sup>, Gabkika Bray Madoué<sup>1,2\*</sup> and Baihene Ballandi<sup>1</sup>

<sup>1</sup>N'Djamena Faculty of Human Health Sciences, Chad.

<sup>2</sup>N'djamena Mother and Child University Hospital, Chad.

**\*Correspondence:**

Gabkika Bray Madoué, N'djamena Mother and Child University Hospital, Chad.

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## ABSTRACT

**Introduction:** Due to their physical and psychological vulnerability, adolescent girls are particularly exposed to risks related to unprotected sex and a lack of appropriate health information and services.

**Objective:** study the knowledge, attitudes and practices of adolescent girls with regard to sexually transmitted infections at the Lycée-Collège Notre Dame de l'Assomption.

**Patients and method:** This was a cross-sectional CAP (knowledge, attitudes and practices) evaluation study conducted over a three-month period. The Lycée-Collège Notre Dame de l'Assomption served as the setting for the study. The study variables concerned knowledge, attitudes and practices as well as sociodemographic characteristics. Data were collected using a pre-established questionnaire. The data were entered and analysed using SPHINX software.

**Results:** A total of 205 adolescent girls participated in the study. The average age was 15.93, ranging from 15 to 19 years old. Participants had good knowledge of 35% and average knowledge of 41% of modern contraceptive methods and their use, as well as STIs. As for their attitudes and practices regarding SRH services, 60% and 64% respectively were found to be insufficient.

**Conclusion:** It appears that adolescents have a fairly thorough knowledge of contraceptive methods and STIs, even if the rate of use remains unsatisfactory. Further study would be necessary to identify the factors contributing to the non-use of contraception by adolescents.

## Keywords

Adolescents, Sexual knowledge, Attitudes, Practices, School Notre Dame l'Assomption Chad.

## Introduction

The sexual and reproductive health (SRH) of adolescent girls is a major public health issue worldwide, particularly in developing countries where rates of early pregnancy, sexually transmitted

infections (STIs) and complications related to pregnancy and childbirth are high. Due to their physical and psychological vulnerability, adolescent girls are particularly exposed to risks associated with unprotected sex and a lack of appropriate health information and services [1].

In 2006, the World Health Organisation (WHO) defined sexual health as a state of physical, mental and social well-being in

relation to sexuality. It requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having sexual experiences that are pleasurable and safe, free from coercion, discrimination or violence [2].

Reproductive health refers to the general well-being, both physical and mental and social, of the individual in all matters relating to the reproductive system and its functions and processes, and not merely the absence of disease or infirmity [3].

Globally, the World Health Organisation (WHO) estimates that in 2020, approximately 21 million girls aged 15 to 19 became mothers, and nearly 2 million young adolescents contracted HIV. In sub-Saharan Africa, one of the continents most affected by these issues, adolescent girls continue to face major obstacles, including limited access to appropriate health services, high prevalence of risky sexual practices, and restrictive social norms that limit their autonomy in matters of sexual health [4,5].

Chad, like many countries in the region, faces specific challenges in terms of SRH. According to the 2014-2015 Demographic and Health Survey and Multiple Indicator Cluster Survey (EDS-MICS), the fertility rate among adolescents (aged 15-19) is 179 births per 1,000 women, one of the highest in the world. This situation is exacerbated by low rates of modern contraceptive use, estimated at only 5.7% among married women aged 15 to 49. In addition, only 14% of women are aware of modern contraceptive methods, highlighting a serious lack of sex education and information. Lack of access to SRH services, particularly in rural areas, also contributes to this situation [1].

Chadian adolescent girls face significant socio-cultural barriers. Social norms and taboos surrounding sexuality hinder access to crucial information and limit young girls' ability to make informed decisions about their sexual health. These barriers are particularly evident in rural communities where adolescents have very limited access to SRH services. In addition, the lack of sex education in schools contributes to a lack of knowledge about contraception, STIs, and sexual and reproductive rights [6].

### Objective

To study the knowledge, attitudes, and practices of adolescent girls regarding sexually transmitted infections at the Lycée-Collège Notre Dame de l'Assomption.

### Patients and Method

This was a cross-sectional evaluative study of the KAP (knowledge, attitudes and practices) type.

Data collection took place over a period of three months, from 15 November 2024 to 15 February 2025.

It involved adolescent girls from the Lycée-Collège Notre Dame de l'Assomption in Ndjamen

We included in this series teenage girls aged 15 to 19 enrolled at Notre Dame de l'Assomption Secondary School, whether married or not, who agreed to participate in the study.

Sampling was carried out using an exhaustive approach and included all teenage girls who met the inclusion criteria.

The study was conducted at Lycée-Collège Notre Dame de l'Assomption.

Before proceeding with data collection, authorisation from the competent authorities and verbal consent from the adolescents were obtained.

Finally, forms consisting of pre-established closed and multiple-choice questions were distributed to be completed by the respondents.

The pre-established questionnaires were distributed to the adolescents to be completed. The questionnaires consisted of closed-ended and multiple-choice questions on:

- Knowledge: Contraceptive methods, STIs.
- Attitudes: Perceptions of contraception and SRH services.
- Practices: Use of contraception, sexual behaviour (protected or unprotected), use of SRH services.

The variables studied were

- Knowledge and attitudes related to STIs

### Data analysis

A data entry form was developed using Microsoft Excel software with control programs for entering the collected data. The data entered was then cleaned and exported to Sphinx Plus (+) software for analysis.

### Results

Our study was conducted at the Lycée-Collège Notre Dame de l'Assomption in the city of N'Djamena on a total sample of 205 respondents.

#### Age

Table 1: Age.

Age	n	%
15	99	48.3
16	56	27.3
17	28	13.7
18	10	4.8
19	12	5.9
total	205	100

The 15-17 age group was the most represented, accounting for 89.3% of the sample. The average age was 15.93±1.16, with extremes ranging from 15 to 19 years.

#### Marital status

Almost all participants were single (94.6%). 5.3% were married.

#### Contraceptive use

In our study, 55.3% of participants thought it was important to use contraception before sexual intercourse. In 12.7% they reported that it is rather to used contraception after sexual intercourse.

Forty-nine (20.1%) didn't know when can contraception can be used. And 11,9% thought that it can be used to avoid pregnancy.

### Knowledge about different types of STIs

**Table 2:** Distribution according to knowledge about different types of STIs.

knowledge about different types of STIs	n	%
HIV/AIDS	186	52.4
Chlamydia	25	7
Gonorrhoea	33	9.3
Genital herpes	26	7.3
Syphilis	71	20
I only knew about one STI	14	3.9

HIV/AIDS was the most widely known STI, at 52.4%.

**Table 3:** Distribution according to knowledge of STI transmission modes.

knowledge of STI transmission modes	n	%
Through sexual contact	166	60.4
Through exchange of bodily fluids (blood, saliva)	38	13.8
Through direct contact with an infected person	41	14.9
I do not know	30	10.9

Sexual transmission was reported as the main route of STI infection, accounting for 60.4%.

Signs of STIs.

**Table 4:** Distribution according to knowledge of STI signs.

knowledge of STI signs	n	%
Leucorrhoea	141	36.4
Burning sensation when urinating (hot piss)	37	9.6
Fever	15	3.9
Abdominal pain	90	23.3
Vulvar pruritus	92	23.8
Don't know	12	3.1

Leucorrhoea accounted for 36.4% of the symptoms reported.

### Attitude towards sexuality

**Table 5:** Distribution of participants according to their perception of the risks associated with STIs.

perception of the risks associated with STIs	n	%
Strongly disagree	60	29.3
Somewhat disagree	17	8.3
Neutral	59	28.8
Somewhat agree	26	12.7
Strongly agree	43	21

The majority of participants were aware of the risks associated with STIs, at 37.6%.

### Perception of the risks associated with unprotected sex

In our survey, 62.5% of participants stated that using a condom every time they had sex protected them against STIs.

**Table 6:** Distribution according to perception of the risks associated with unprotected sex.

perception of the risks associated with unprotected sex	n	%
Strongly disagree	22	10.7
Somewhat disagree	16	7.8
Neutral	39	19.0
Somewhat agree	34	16.6
Strongly agree	94	45.9
Total	205	100

### Discussion

The 15-17 age group was the most represented, accounting for 89.3% of respondents, with the extreme age range being 15-19 and the average age being 15.93 ±1.16. In this series, we noted that 94.6% of respondents were single. This result is consistent with that of Imen et al. [7] in Tunisia in 2020, which reports a single rate of 95.8%.

This result obtained in our country can be attributed to the choices made by adolescent girls. Indeed, the school environment is not an appropriate setting for childbearing. The second reason stems from the fact that Chadian law prohibits marriage before the age of 18.

Married women accounted for 2.4%, which is lower than the figure reported by Djénéba in 2023 in Mali, where 66.9% of women were married [8]. This may be linked to our choice of study location. In our region, few young people marry during adolescence, and this is particularly true among young people in education.

Our study shows that nearly 4% of our participants have no knowledge of STIs. This result is lower than the data in the literature [9-11], which notes a high proportion of knowledge about STIs in schools. Indeed, culture and, above all, level of education appear to be factors that can improve the level of knowledge about STIs. Taking into account the different STIs, we noted that 20% were able to name syphilis, 9.3% gonorrhoea, 7.3% genital herpes and 7% chlamydia, while HIV/AIDS was known by more than 52.4% of participants. This high proportion of HIV/AIDS awareness can be attributed to the perception of this pandemic in Chad and around the world. Indeed, the HIV control programme is intensifying its campaigns in both urban and rural areas with the aim of limiting the spread of the disease. Despite this average level of knowledge, emphasis should be placed on STIs, for which awareness levels remain low among the population studied.

Our study demonstrated an average level of knowledge about the transmission routes of the STIs mentioned. The most frequently cited transmission route was sexual transmission (60.4%). This result is lower than that reported by Raoul et al. [12] in Benin in 2022, which was 89.4%. Taking into account existing data [12,13], we see a higher proportion everywhere that reports sexual transmission as the primary mode of infection. This knowledge may be attributable to cultural knowledge and, above all, to the level of awareness of STIs in Chad. Indeed, during debates and

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conferences, it is widely claimed that one of the modes of STI transmission is sexual transmission.

Leucorrhoea was the main sign of STIs cited by participants, at 36.4%. This could be explained by the fact that these symptoms are more noticeable at an advanced stage of the disease. Apart from this, the presence of leucorrhoea, along with accompanying symptoms such as pain, itching or smell, can cause discomfort for women or their partners, thus motivating them to seek medical advice.

Our results showed that participants had a negative perception of contraception, with 44.9% of our participants believing that contraceptives were dangerous to health. However, it is clear that a lack of information on sex education and ignorance of contraceptive methods are a major cause of early or unwanted pregnancies and STIs/HIV among adolescents.

### Conclusion

At the end of this study, which focused on the knowledge, attitudes and practices of adolescents in terms of sexual and reproductive health in the city of N'Djamena, it appears that adolescents have a fairly thorough knowledge of contraceptive methods and STIs, even if the rate of use remains unsatisfactory. Further research is needed to identify the factors that prevent adolescent girls and young women from using contraception. Raising awareness is essential so that parents and guardians understand that sexuality encompasses more than just sexual intercourse, thereby avoiding the negative and unhealthy aspects of sexuality.

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