

# Sexual and Reproductive Health Knowledge and Behaviour among Adolescents in Rural **Burkina Faso**

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Abstract

Background: Adolescents in developing countries have limited knowledge about the prevention of STIs and unwanted pregnancies. In several African countries, risky sexual behaviour persists, including early sexual debut, multiple sexual partners, economic and sexual exchange, and low condom and contraceptive use. The purpose of this study is to assess the sexual and reproductive health knowledge and behaviour of adolescents in rural Burkina Faso in order to improve their sexual and reproductive health. Method: This was a descriptive cross-sectional study with prospective data collection conducted from 07 March to 04 April 2022 in the area of the Demographic and Health Surveillance System of the Nouna Research Centre. A questionnaire was administered to a randomly selected sample of 1202 adolescents. Results: The mean age of the adolescents was 14.1 years and 56.6% were male. Only 58.2% of the adolescents had ever heard of HIV/AIDS. Of these, 95.7% did not know their HIV status. In addition, 15.8% had ever had sexual intercourse and 2.4% had been sexually active at an early age. Almost 45% had not used any contraceptive method the last time they had sex. Condoms were the most frequently used contraceptive method (47.4%). Among teenagers, 27.6% had been pregnant at least once, 7.3% were married and the average age at marriage was 18.45 years. Almost 7% (6.9%) of teenagers had more than one sexual partner. Conclusion: Adolescents have limited knowledge about reproductive health. Risky sexual behaviour persists. Awareness campaigns need to be intensified to improve their sexual and reproductive health.

## **Keywords**

Knowledge, Behaviour, Reproductive Health, Adolescents, Nouna, Burkina Faso

# **1. Introduction**

Adolescents make up one-sixth of the world's population [1] [2]. Adolescents also make up more than half of the population in developing countries, particularly in sub-Saharan Africa [3] [4]. These teenagers need to be educated to lead fulfilling lives. Adolescents' lack of knowledge about sexual and reproductive health has many consequences. According to WHO, 21 million girls aged 15 - 19 will become pregnant in these countries in 2019, and around 50% of these pregnancies will be unintended. Nearly 55% of unintended pregnancies among adolescents aged 15 -19 years end in abortion [3]. According to UNICEF, nearly 170,000 adolescents aged 10 - 19 will be living with HIV in 2020, of whom 150,000 will be newly infected [5]. In the study by Kassa et al., which covered 24 countries from East, West, Central, North and Southern African sub-regions, the overall pooled prevalence of adolescent pregnancy in Africa was 18.8% and 19.3% in the Sub-Saharan African region [1]. Factors associated with adolescent pregnancy include rural residence, being married, not attending school, no maternal education, no father's education and lack of parent-to-adolescent communication on sexual and reproductive health (SRH) issues [1].

In sub-Saharan Africa, the frequency of unprotected sex at last intercourse varies widely, from 18% to 83% [6]. Contraceptive use among young women aged 15 - 24 in the region is low, at 14.7%. At the same time, HIV infection is high among young women in the region, accounting for 64% of new HIV infections in West and Central Africa among 15 - 24-year-olds. At the same time, HIV testing among young people in the region remains very low, at 12% [7].

In Burkina Faso, as in other African countries, risky sexual behaviour persists, including early sexual debut, multiple sexual partners, economic and sexual exchange, and low condom and contraceptive use [7]. Over 90% of adolescents aged 15 - 19 years reported that they did not have access to enough detailed information to effectively protect themselves from unwanted pregnancy [7]. To improve adolescents' sexual and reproductive health, a sound knowledge of the components of reproductive health and good sexual behaviour is essential. It is against this background that this study of adolescents' sexual and reproductive health knowledge and behaviour was initiated, with the aim of proposing appropriate actions.

# 2. Methodology

The study was conducted in the area of the Demographic and Health Surveillance System (DHSS) of the Nouna Health Research Centre in Burkina Faso.

It was a descriptive cross-sectional study. The method of data collection was prospective.

Data were collected in randomly selected households between 7 March and 4 April 2022.

The study population consisted of male and female adolescents aged 10 - 19 years in the Nouna SSDS area.

The inclusion criteria were:

- aged between 10 and 19 years.
- reside in the study area.
- have the informed consent of a parent or guardian for adolescents under the age of 18.
- have given informed consent for participants under the age of 18.
- have given written informed consent for adolescents aged 18 or 19.
- Sample size was calculated using the Schwartz formula:  $n = [(Z^2 PQ)/\delta^2]$ .

As no similar study was available in our context, we used a standard P of 0.5.

With a precision of 95%, the theoretical minimum number of adolescents for the study was 385. We randomly selected 1202 adolescents from the DHSS sampling frame.

Ten trained interviewers, supported by a supervisor, collected data during interviews with the teenagers using tablets equipped with Survey CTO mobile data collection software. All data collected was quickly downloaded to secure servers and checked for quality prior to analysis.

The study variables were:

- Sociodemographic variables: age, sex, place of residence, level of education, socio-economic level, cohabitation, menarche, marital status.
- Variables related to SRH knowledge: having heard about HIV/AIDS, different sources of information about HIV/AIDS, knowledge of serological status, and knowledge of other STIs. We only assessed knowledge of the different components of reproductive health. We did not classify knowledge by level.
- Variables related to SRH behaviour: having been tested for HIV/AIDS, sexual activity, early sexuality, having already impregnated a girl, pregnancy history, history of childbirth, use of contraception, number of sexual partners, reasons for sexual intercourse, circumcision, excision.

Socio-economic level was measured using the McArthur scale. We divided it into 3 levels: low socio-economic level (0 to 3), medium socio-economic level (4 to 7) and high socio-economic level (8 to 10).

To ensure ethical compliance, we obtained approval from the institutional ethics committee of the Nouna Health Research Centre (NHRC) and the national ethics committee for health research in Burkina Faso. In addition, for all adolescents under the age of 18, parental or guardian consent and adolescent consent were required to participate in the study. For adolescents aged 18 and over, written informed consent was obtained before participation in the study. Confidentiality and anonymity of participants were also assured.

## **3. Results**

## 3.1. Sociodemographic Characteristics of Adolescents

Our study population consisted of 1202 adolescents who responded to sexual and reproductive health questionnaires in the Nouna Demographic and Health Surveillance System.

The mean age was 14.1 years, with extremes of 10 and 19 years. Adolescents aged 10 - 14 years accounted for 58.4% of participants and those aged 15 - 19 years for 41.6%. Males accounted for 56.6% and females for 43.4%.

The level of education is shown in Figure 1 below.



Unschooled = Primary level = Post primary level = Secondary level and above
Figure 1. Distribution of adolescents by level of education (N = 1202).

The socio-economic level of the adolescents was measured using the McArthur scale with 3 levels: low socio-economic level (0 to 3), medium socio-economic level (4 to 7) and high socio-economic level (8 to 10). The distribution of adolescents according to average socio-economic level is shown in Table 1.

Socio-economic level	Number	Percentage
Low	334	27.8
Middle	820	68.2
High	48	4.0
Total	1202	100

Table 1. Distribution of adolescents by socio-economic level

In terms of residence, 85% of adolescents lived with their parents. **Figure 2** shows the distribution of adolescents by type of residence.

Of the adolescent girls (522), 50.19% had already menstruated and 23.24% had been circumcised. The minimum age at first menstruation was 11 years and the average age at first menstruation was 13.73 years.

Of the adolescents, 76.76% had been circumcised.



Figure 2. Breakdown of adolescents by type of living arrangement.

#### 3.2. Adolescents' Knowledge of STIs/HIV/AIDS

Of all respondents, 58.15% had heard of HIV/AIDS. The main sources of information about HIV/AIDS were school (53.58%), friends (26.65%) and parents (9.60%).

Of these adolescents, 95.7% had never been tested for HIV/AIDS, compared to 4.30% who had been tested. Of the 30 participants who had been tested, 20 were HIV negative and the other 10 said they could not remember the result or did not want to disclose their status.

Only 6.99% of the adolescents (84/1202) said they knew of other types of STIs besides HIV/AIDS. Syphilis and gonorrhoea were the best known of the other STIs. Human papilloma virus was unknown to teenagers.

#### 3.3. Adolescents' Sexual and Reproductive Health Behaviour

Among the adolescents, 15.8% (190/1202) had ever had sexual intercourse. The minimum age for first sexual intercourse was 10 years and the maximum was 19 years. The average age at first sexual intercourse was 16.36 years for males and 15.73 years for females. By gender, 20.1% of adolescent girls had already had sexual intercourse.

As precocious sexuality is defined as the onset of sexual activity before the age of 15 [7], 2.4% of adolescents (29/1202) were precocious. This rate was 3.6% among participants living in urban areas.

In terms of gender, early sexual activity was more common among girls (4.6%).

Among sexually active adolescents, 27.62% had been pregnant at least once and 2.9% had given birth at least once. Among the adolescents, 3.53% had been pregnant once.

Among the adolescents who were sexually active, 44.74% (85/190) had not used any contraceptive method at the time of their last sexual intercourse.

Of the participants who had not used any contraceptive method, 63.53%

(54/85) lived in rural areas. This difference was statistically significant.

Among teenage girls, 7.28% were married. The average age of marriage was 18.45 and the minimum age was 14.

Of the 680 boys, 3 were married, 2 at 18 and one at 19. The latter had an incomegenerating activity and lived with his partner. The 18-year-olds did not work and lived at home with their parents and spouses.

Of the 190 adolescents who were sexually active, 177 (93.2%) had one sexual partner and 10 had two sexual partners (7 boys and 3 girls).

# 4. Discussion

This study has limitations. It did not analyse the determinants of lack of knowledge about SRH and risk behaviour.

Only 58.15% of the participants had ever heard of HIV/AIDS. This situation could be explained by the youth of our study population, who have not yet had the opportunity to attend or listen to regular awareness-raising sessions on HIV/AIDS. Furthermore, the presence of terrorism in the area means that this opportunity is becoming increasingly rare. Also, as the majority of young teenagers are in primary school, the subject of HIV is less discussed at this level of education. It is generally not until secondary school that it is more widely discussed.

This result is lower than those found by Diarra *et al.* [8] in Mali and Touré *et al.* [9] in Côte d'Ivoire, who found 99.7% and 99.3% respectively. This difference could be explained by the fact that our study population was mainly rural and had a low level of education.

In terms of sources of information about HIV/AIDS, the school was the main source with 53.58%. This could be explained by the high proportion of adolescents attending school in our study (84.8% of participants). School is a privileged place to learn and acquire knowledge about HIV/AIDS. NGOs sometimes organize HIV/AIDS awareness sessions in schools, helping to improve knowledge about sexual and reproductive health.

This result shows that most parents do not educate their children about sexual and reproductive health, as it is still a taboo subject in our context.

Only 7% of the adolescents were aware of other types of STIs besides HIV/AIDS. This could be explained by the fact that STI awareness campaigns always focus on HIV/AIDS. This result is lower than that found by Segbedji *et al.* [10] in Lomé, who found that 92% of adolescents were aware of other STIs. This difference may be explained by the fact that their study included adolescents in secondary school. At the secondary level, the study of STIs is part of the life and earth sciences curriculum.

In terms of behaviour, only 15.8% of the adolescents had already had sexual relations. This result is similar to that found by Khermakhem *et al.* [11] in Tunisia, where 12.5% of adolescents were sexually active.

This low rate could be explained by the fact that the participants lived in rural or semi-rural areas. In these environments, they are less influenced by the media and social networks. The latter often broadcast sexual content that arouses teenagers' curiosity about sexuality. In addition, cultural and religious norms, which are more respected in rural areas, do not encourage sexual activity among teenagers before marriage.

Our result is lower than those of Segbedji *et al.* [10] in Lomé, Kounta *et al.* [12] in Mali and Diallo *et al.* [13] in Conakry, who found frequencies of 27.6%, 54% and 45.2% respectively. This difference can be explained by the fact that their studies focused on adolescents in urban areas who were in secondary school, unlike ours, which focused on adolescents who had not attended school, in primary and secondary schools.

Contraceptive methods were used by 55.3% of adolescents. This relatively high rate of use could be explained by the availability of contraceptive methods in all health centres. The Ministry of Health has made contraceptive methods available free of charge throughout Burkina Faso.

This rate of 55.3% is much higher than those found by Diawara [14] in Bamako and Adohinzin *et al.* [15] in Bobo Dioulasso, who found 8.5% and 28.6% respectively. This could be explained by the fact that contraceptive prevalence is low in Mali and that the Adohinzin study targeted adolescents aged 15 - 19 years, most of whom were in couples.

In addition, some young people are unaware of the potential risks of unprotected sex. For other young people, condoms reduce pleasure, so they choose to have sex without condoms.

The condom is the most commonly used contraceptive method (44.37%). This is due to its accessibility, affordability and effectiveness in preventing both unwanted pregnancy and sexually transmitted infections. This rate of condom use is lower than that of Keita [16] in Mali, who found 92.4%. This difference could be explained by the fact that his study took place in an urban environment where condoms are easier to obtain.

More than 8 out of 10 adolescents (83.4%) have not had sexual relations. This could be explained by the respect for social values in our context. In fact, habits and customs are not in favour of sexual relations outside marriage. This rate is higher than that found by Mukadi *et al.* [17] in the Congo, who found 56% in their study. Their study was conducted in an urban environment. In this environment, moral decay is more pronounced and young people routinely engage in early sex without embarrassment.

Of the teenagers who had heard about HIV, only 4.3% had been tested, or 30 people, representing 2.5% of all young people. This low rate of HIV testing could be explained not only by the fact that most of the adolescents were virgins, but also by inadequate information about HIV/AIDS.

The screening rate in our series is lower than that of Segbedji *et al.* [10] in Lomé, who found 42.4%. The difference in the study setting could explain this situation. In rural areas, the subject remains taboo and the risk of HIV-related social stigma is high.

# **5.** Conclusion

Adolescents in rural areas have insufficient knowledge about sexual and reproductive health. In fact, knowledge about HIV/AIDS and STIs is poor, and the rate of HIV screening is low. Few adolescents had started sexual activity, which is remarkable. However, those who had sexual partners were taking risks, as the majority of sexual relationships were unprotected. Despite this, condoms were the contraceptive method most commonly used by teenagers. These shortcomings should make it possible to take action in relation to adolescents. Emphasis should be placed on community education programs to reach those who do not attend school. A comprehensive approach that respects the rights of adolescents is needed to meet their needs and help them lead responsible and fulfilling sexual lives.

# **Conflicts of Interest**

The authors declare no conflicts of interest regarding the publication of this paper.

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