

Use of Contraceptive Methods Among Adolescent Girls at The Faladie Community Health Center in Commune Vi of Bamako District Mali

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Received: 📅 2025 Nov 20

Accepted: 📅 2025 Dec 15

Published: 📅 2025 Dec 24

Abstract

Introduction

Adolescent sexual and reproductive health is a major public health concern in Mali. Despite increasing awareness, contraceptive use remains low among adolescent girls, who are exposed to risks of early and unintended pregnancies.

Objective

To assess the knowledge and use of contraceptive methods among adolescent girls attending the Faladiè Community Health Center (CSCOM) in Commune VI of Bamako District.

Methodology

A cross-sectional study was conducted from May 1 to July 31, 2024, involving 381 adolescent girls. Data were collected using a semi-structured questionnaire and analyzed with SPSS version 24.

Results

Most participants (99.7%) were aware of contraceptive methods. Implants (48.8%) and injectables (24.9%) were the most used methods. A total of 94% reported experiencing side effects, mainly spotting (36.2%) and abdominal pain (29.7%).

Conclusion

Despite high awareness of contraceptive methods, side effects and sociocultural barriers hinder optimal use. Targeted interventions are needed to improve access to and acceptability of reproductive health services for adolescent girls

Keywords: Contraception, Adolescent, Reproductive Health, Mali

1. Introduction

Adolescent sexual and reproductive health is a major public health concern in West Africa, particularly in Mali, where young people aged 10 to 24 represent a significant portion of the population. Access to accurate information and appropriate family planning services is essential to prevent unintended pregnancies, unsafe abortions, and sexually transmitted infections (STIs). According to the Guttmacher Institute (2020), although most adolescent girls in the countries of the Ouagadougou Partnership are aware of at least one contraceptive method, actual use remains low due to social, cultural, and structural barriers [1].

In Mali, data from the Seventh Demographic and Health

Survey (EDSM-VII), published by INSTAT, CPS/SS-DS-PF, and ICF (2024), indicate that 22.2% of married women aged 15 to 49 use a contraceptive method, with 21% using a modern method. Implants (11%) and injectables (5%) are the most used. However, contraceptive prevalence remains low among young women aged 15–19 (10%) and among those without children (2%), highlighting increased vulnerability to early and unintended pregnancies. Geographic and social disparities are also evident, with higher prevalence in Bamako (30%) compared to rural areas (19%), and a positive correlation with education level and economic status [2].

Similar trends are observed in neighboring countries. In Burkina Faso, Ouédraogo et al. (2021) found that most

adolescent and young women who initiated contraceptive use discontinued it, often due to social pressure, desire for pregnancy, or side effects. Discontinuation rates were 50.1% in Burkina Faso and 59.6% in Mali. In Senegal, Seck et al. (2020) documented barriers faced by adolescent girls in accessing post-abortion family planning services, including stigma, lack of provider training, and the need for family approval [3,4].

In this context, studying the knowledge and use of contraceptive methods among adolescent girls attending the Faladiè Community Health Center (CSCOM) in Commune VI of Bamako District is highly justified. Few studies have focused on community health structures, which are at the forefront of Mali's public health strategy. A recent study conducted in schools in Commune V of Bamako by Dembélé et al. (2023) showed that 87% of adolescent girls were aware of contraception, but only 29% used it, mainly condoms. Identified barriers included sociocultural norms, lack of sexual education, and stigma. Understanding the specific challenges faced in Faladiè will help tailor educational and medical interventions, contributing to the achievement of Sustainable Development Goals, particularly those related to reproductive health and the empowerment of adolescent girls [5].

2. Terials And Methods

This cross-sectional study was conducted from May 1 to July 31, 2024, at the Faladiè Community Health Center (CSCOM Faladiè), located in Commune VI of Bamako District. The center, managed by the Community Health

Association ASACOFA, is one of twelve CSCOMs in the 6th arrondissement. The study targeted adolescent girls currently using contraceptive methods. Eligibility criteria included all adolescent girls who provided free, informed, and verbal consent to participate. Those who declined participation were excluded. A total of 381 participants were successfully enrolled in the study. Data collection was carried out through face-to-face interviews using a semi-structured questionnaire, administered individually and in conditions that ensured privacy and anonymity. The questionnaire covered sociodemographic characteristics, knowledge of contraceptive methods, and patterns of use. All collected data were entered and analyzed using SPSS software, version 24. The study adhered to ethical principles, including voluntary participation, confidentiality, anonymity, and no financial or material compensation. Prior to data collection, participants were informed about the objectives, procedures, and scientific relevance of the study.

3. Results

A total of 381 adolescent girls participated in this study. Nearly three-quarters (73%) of the participants were aged 21 to 24 years, a group typically characterized by active sexual life and increased need for contraception. About 44.1% were married, and 65.9% lived in family homes, which may influence their access to reproductive health services, particularly in terms of mobility and autonomy in decision-making. The level of education was relatively high, with 78.4% attending school, which favors better understanding of contraceptive issues (Table 1).

Item	Frequency	Percentage
Age		
18–20 years	103	27.0%
21–24 years	278	73.0%
Marital status		
Married	168	44.1%
Divorced	84	22.0%
Single	129	33.9%
Education level		
Illiterate	82	21.5%
Primary	115	30.2%
Secondary	132	34.6%
University	52	13.6%
Type of residence		
Apartment	130	34.1%
Family home	251	65.9%

Table 1: Sociodemographic Characteristics

Knowledge of contraceptive methods was nearly universal among participants. However, some misconceptions persisted, such as the belief that contraception can influence the sex of the child (7.1%) or prevent HIV/AIDS (88.7%

believed this, which is only true for barrier methods like condoms). These findings highlight the need for more accurate and method-specific sexual education (Table 2).

Knowledge Item	Yes (%)	No (%)
Have you ever heard of contraceptive methods?	100.0	0.0
Does family planning help limit births in a couple?	99.0	1.0
Do contraceptive methods help space births in a couple?	99.7	0.3
Do contraceptive methods help have a male child?	7.1	92.9
Do contraceptive methods help prevent STIs and HIV/AIDS?	88.7	11.3
Do you know where to find contraceptive services?	99.7	0.3
Do you know the nearest CSCOM where you can access contraceptive services?	99.7	0.3

Table 2: Knowledge of Contraceptive Methods

Regarding contraceptive use (Table 3), implants were the most used method (48.8%), likely due to their long duration of action and availability in CSCOMs. Injectables and intrauterine devices (IUDs) followed, while barrier

and natural methods were rarely used. This may reflect a preference for discreet and effective methods, but also a lack of information or access to other options.

Method	Frequency	Percentage
Male condom	8	2.1%
Cycle beads	1	0.3%
MAMA method	1	0.3%
Pills	35	9.2%
Injectables	95	24.9%
Implants (Jadelle, Implanon)	186	48.8%
Intrauterine device (IUD)	55	14.4%

Table 3: Types of Contraceptives Used

Side effects were reported by most participants. 94.0% experienced at least one side effect related to contraceptive use. The most common were spotting (36.2%), abdominal pain (29.7%), and weight gain (28.1%). Only 6.0% of

participants reported no side effects, underscoring the importance of medical support and proper information on managing adverse effects.

Type of side effect	Frequency	Percentage
Spotting	138	36.2%
Abdominal pain	113	29.7%
Weight gain	107	28.1%
No side effects	23	6.0%
Total reporting side effects	358	94.0%

Table 4: Side Effects of Contraceptive Methods

4. Discussion

The findings of this study reveal a high level of awareness of contraceptive methods among adolescent girls attending the Faladiè Community Health Center (CSCOM), with 99.7% reporting knowledge of at least one method and 99% understanding the role of family planning. These figures are significantly higher than those reported by Ahinkorah et al. (2020), who found a 17.1% prevalence of modern contraceptive use among adolescent girls and young women in Mali, with negative correlations linked to low education levels, marital status, and childlessness. Our study confirms that school-enrolled girls are more informed and more

likely to adopt modern contraceptive methods, aligning with the conclusions of Michael et al. (2024), who identified education as a key determinant of contraceptive uptake among adolescents in sub-Saharan Africa [6,7].

Regarding the types of contraceptives used, implants (48.8%) and injectables (24.9%) were the most common, consistent with trends observed in other countries in the region. However, the high prevalence of reported side effects (94%) raises concerns. Spotting (36.2%), abdominal pain (29.7%), and weight gain (28.1%) were the most frequently cited, which may affect continued use. Chilinda

et al. (2021) emphasized that perceived or experienced side effects are among the leading causes of contraceptive discontinuation in low- and middle-income countries. Furthermore, sociocultural norms and stigma surrounding contraceptive use by unmarried adolescents, as reported by Barden-O'Fallon et al. (2020), remain significant barriers to equitable access to reproductive health service [8-10].

Overall, the results of this study underscore the urgent need to improve youth-friendly reproductive health services, particularly within community health structures. UNFPA (2021) recommends strengthening adolescent sexual and reproductive health services in West Africa by ensuring accessibility, confidentiality, and quality. Integrating comprehensive sexuality education into school curricula and training healthcare providers in non-judgmental, youth-centered approaches are essential strategies to enhance contraceptive use and reduce early pregnancies [11].

5. Conclusion

This study revealed a high level of knowledge about contraceptive methods and a predominant use of implants and injectables among adolescent girls. However, side effects and sociocultural barriers remain significant challenges. It is recommended to strengthen sexuality education, train healthcare providers in youth-friendly approaches, improve the management of side effects, involve families in awareness efforts, and expand reproductive health services in CSCOMs with dedicated spaces for adolescents in Mali.

Acknowledgements

The authors would like to express their sincere gratitude to the management and staff of the Faladiè Community Health Center (CSCOM) for their collaboration and support throughout the data collection process. Special thanks go to the adolescent girls who participated in the study for their openness and willingness to share their experiences.

Authors' Contributions

All authors contributed to the conceptualization and design of this study. They provided critical input during data analysis and manuscript development. All co-authors have read and approved the final version of the manuscript for submission.

Competing Interests

The authors declare that they have no competing interests related to the preparation or publication of this manuscript.

Consent for Publication

This study does not include any individual details, images, or videos. Therefore, consent for publication is not applicable. Data were collected in the Bamako District, and the datasets used for analysis are available from the corresponding author upon reasonable request.

Funding

This research received no financial support from any funding agency, commercial or not-for-profit sectors.

References

1. Sully, E. A., Biddlecom, A., Darroch, J. E., Riley, T., Ashford, L. S., Lince-Deroche, N., ... & Murro, R. (2020). Adding it up: investing in sexual and reproductive health 2019.
2. Institut National de la Statistique (INSTAT), CPS/SS-DS-PF, ICF. *Enquête Démographique et de Santé du Mali (EDSM-VII) 2023–2024 – Rapport des indicateurs clés*. Bamako: INSTAT; 2024. Available from:
3. Ouédraogo, A. M., Baguiya, A., Compaoré, R., Cissé, K., Dahourou, D. L., Somé, A., ... & Kouanda, S. (2021). Predictors of contraceptive method discontinuation among adolescent and young women in three West African countries (Burkina Faso, Mali, and Niger). *BMC women's health*, 21(1), 261.
4. Seck C, Hounkanrin G, Sarr Aw FNR, Mugore S. *Documentation de la phase pilote de l'offre de planification familiale après avortement adaptée aux adolescentes et jeunes au Sénégal*. E2A Project; 2020. Available from
5. Dembélé, S., Hamidou, A., Sylla, C., Sissoko, H., Dao, S. Z., Samaké, A., ... & Amara, S. S. (2023). Knowledge, attitudes and practices of adolescent girls on contraception in schools in commune V of the District of Bamako. *Sch J Med Case Rep*, 2, 157-165.
6. Ahinkorah, B. O., Seidu, A. A., Appiah, F., Budu, E., Adu, C., Aderoju, Y. B. G., ... & Ajayi, A. I. (2020). Individual and community-level factors associated with modern contraceptive use among adolescent girls and young women in Mali: a mixed effects multilevel analysis of the 2018 Mali demographic and health survey. *Contraception and reproductive medicine*, 5(1), 27.
7. Michael, T. O., Ojo, T. F., Ijabadeniyi, O. A., Ibikunle, M. A., Oni, J. O., & Agboola, A. A. (2024). Prevalence and factors associated with contraceptive use among sexually active adolescent girls in 25 sub-Saharan African countries. *Plos one*, 19(2), e0297411.
8. Atuhaire, S., Ngendakumana, J., Galadima, A., Adam, A., & Muderhwa, R. B. (2021). Knowledge and attitude towards contraceptive use among adolescents in Africa: a systematic review. *Int J Reprod Contraception Obstet Gynecol*, 10(11), 4292-303.
9. Chilinda, I., Cooke, A., & Lavender, D. T. (2021). Contraceptive unmet needs in low and middle-income countries: A systematic review. *African Journal of Reproductive Health*, 25(2), 162-170.
10. Barden-O'Fallon, J., Traore, A., & Tounkara, M. (2020). Attitudes and opinions of young people in Mali on family planning, barriers to contraceptive use, and suggestions for programming. *African journal of reproductive health*, 24(2), 106-114.
11. UNFPA. *Adolescent and Youth Sexual and Reproductive Health and Rights Services: Key elements for implementation and scaling up services in West and Central Africa*. UNFPA WCARO; 2021. Available from: