

Determinants of teenage pregnancy and knowledge about contraception, sexually transmitted diseases among pregnant women: A case-control study in Eastern India

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ABSTRACT

Context: Each year, about 21 million girls aged 15–19 in developing regions experience pregnancy, posing significant challenges for their health, well-being, and economic stability due to its vast impact. **Aim:** To identify the risk factors contributing to teenage pregnancy as compared to Pregnancy in pregnant women in the rural area of the Khordha district with the assessment of their knowledge and, health-seeking behaviour (Contraception and STDs) among teenage and adult pregnant women in the study area. **Settings and Design:** Hospital-based case-control study conducted at Bhubaneswar's Community Health Centre. **Material and Methods:** The study, conducted from April to July 2022, recruited 138 participants using consecutive sampling and interviewed them using a pretested semi-structured questionnaire. **Statistical Analysis:** Chi-square and logistic regression assessed association and strength. **Results:** Factors contributing to teenage pregnancy include education below high school (AOR = 2.46; 95%CI 0.89–6.79), SC and ST caste (AOR = 2.34; 95%CI 0.94–5.82), having more than three siblings (AOR = 4.45; 95%CI 1.53–12.96), and lack of communication about sexual issues (AOR = 2.84; 95%CI 1.25–6.39). Awareness of contraceptive methods was 34.8% among cases and 56.5% among controls ($p = 0.02$). Regarding STD awareness and symptoms, 15.2% of cases and 42.4% of controls were knowledgeable and experienced symptoms ($p < 0.01$). **Conclusions:** This study suggests that factors such as lower education, minority caste, having more than three siblings, and lack of communication about sexual issues contribute to early pregnancy. These findings could enhance existing ARSH platforms by integrating regular engagement and sensitization efforts.

Keywords: Contraception knowledge, sexually transmitted diseases, teenage pregnancy

Introduction

Teenage pregnancy is a global health concern, particularly prevalent in developing regions. According to the World Health Organization (WHO), approximately 21 million girls aged 15–19

in these regions undergo pregnancy each year, with around 12 million giving birth.^[1] In India, national surveys highlight the alarming prevalence of early marriages, with 26.8% and 23.3% of women aged 20–24 being married before 18 in two consecutive surveys. The data also reveals that 6.8% of girls aged 15–19 are pregnant or have children, a slight decrease from previous data.^[2,3]

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Child, early, and forced marriages (CEFM) contribute significantly to early pregnancies, exposing young mothers to

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higher risks during pregnancy and childbirth.^[4] Complications such as haemorrhage, chronic infection, anaemia, and eclampsia are more common among adolescent mothers, leading to severe long-term health effects. Unfavourable delivery outcomes, including stillbirth and low birth weight, are associated with teenage pregnancies, carrying a threefold increased risk of infant mortality.^[5-8] Factors linked to adolescent pregnancies in South Asia include low maternal education, low socioeconomic status, rural residency, and ethnic minorities.^[9]

Alongside high fertility rates, there is an unmet need for family planning, particularly evident in Odisha with a 7.2% rate among currently married women aged 15–49.^[2] Additionally, the risk of sexually transmitted infections (STIs), reproductive tract infections (RTIs), and HIV remains high among these early reproductive age groups.^[10] While the Adolescent Fertility Rate (AFR) has seen a decline, the actual numbers of early pregnancies and their unintended outcomes pose significant threats to maternal and child health.^[1,2] To address this, it is crucial to identify the determinants of teenage pregnancy. The focus should include exploring factors associated with early pregnancies and assessing knowledge about contraception, STDs, and health-seeking behaviour. Comprehensive efforts are needed to implement effective strategies for reducing teenage pregnancies and improving the overall reproductive health of young girls in these regions.

This study helps primary care physicians to identify the determinants of teenage pregnancy this can help to reverse this trend through patient education and identification of teenagers at high risk for early sexual activity.

Methodology

A hospital-based, unmatched case-control study was conducted at the Community Health Centre, Tangi, AIIMS Bhubaneswar, from April to July 2022. The centre, averaging 160 monthly deliveries, provides care for antenatal mothers and essential and emergency obstetric services. Risk and protective factors were chosen based on an extensive literature search, and a hypothetical causal pathway was developed to elucidate the potential influences on early-age pregnancy in the study area [Figure 1].

Study participants

Primi gravid pregnant women with confirmed pregnancy by UPT kit.

Study cases

The cases were pregnant women aged between 13 and 19 years (not completed 19 years at the time of confirmation of pregnancy).

Controls

Pregnant (primi gravida) women between the ages of 20 and 49 served as controls for the study. For each case, we recruited two

eligible consecutive controls. The controls were identified from patients attending the health facility who had consented to the study. The case-to-control ratio is 1:2. A consecutive sampling technique was employed for subject enrolment.

Sampling

Based on research conducted in South Africa on risk factors for teenage pregnancy, not living with a biological father was selected as the predictor variable.^[11] It was a one-tailed test with a probability of exposure given disease absent was 0.5, a probability of exposure given disease present as 0.729, and an anticipated odds ratio (OR) of 2.7. The allocation ratio was taken as 1:2, power (%) as 80, alpha error (%) as 5. The required sample size for the case group = 41. The size of the sample needed for the control group is 82. With a 10% non-response rate, the final sample size calculated for cases was 46, and control was 92, respectively.

Data collection

A semi-structured questionnaire was developed based on the Illustrative Questionnaire for Interview Surveys with Young People by WHO.

Exposure measure and data analysis

In this study, composite measures, incorporating various questions, were employed for sociodemographic, socio-cultural, sexual and reproductive health, and perceptions of health services exposures. SPSS Statistics 26 was utilized for data analysis, presenting continuous data as mean (SD) and categorical data as percentage/proportion. The OR (Chi-Square test) determined the risk of association between teenage pregnancy and relevant factors, with appropriate regression techniques applied to identify applicable models for the data.

Ethical approval

Taken from the Ethics Committee of the All-India Institute of Medical Science (AIIMS), Bhubaneswar (IEC No. TM-NF/CM and FM/21/183).

Results

Sociodemographic characteristics of study participants

A total of 138 participants were interviewed in the current study. Among them, 46 were cases, and 92 were controls. The response rate of the participants in this study was 100%. The mean (\pm SD) age of cases and controls was 18.16 (0.72) and 23.98 (3.8) years, respectively. The mean age of marriage (\pm SD) for cases and control was 17.13 (1.040) and 22.53 (3.9) years [Table 1].

Approximately 85% of cases and 62% of controls were educated below high school. The majority of participants belonged to the Hindu religion. Nearly 39% of cases and 16.3% belonged to Scheduled castes and scheduled tribes. The majority of parent

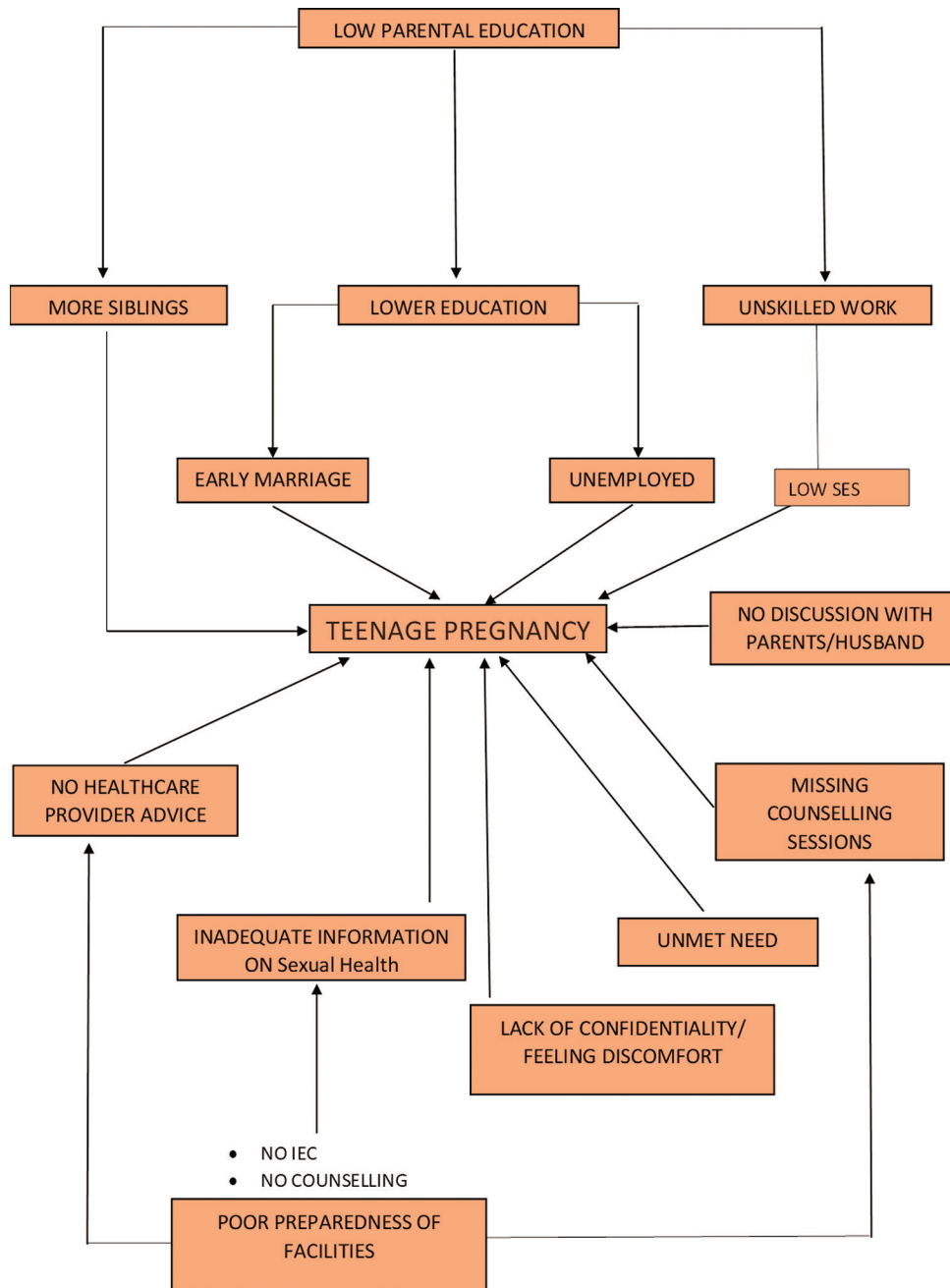


Figure 1: Hypothetical causal loop of teenage pregnancy

education was below high school in both groups. According to the UdaiPareek scale, 67.4% of cases and 60.9% of controls belong to the lower class. Others belong to middle-class and upper-class socioeconomic status. Education of teenage girls, working status, caste, number of siblings, and occupation of the head of the family had significant associations between both groups [Table 1].

Sociocultural characteristics

Among the cases, 34.8% were having a love marriage, and 65.2% were in a marriage arranged by family. Among the controls, 17.4% were love marriages, and 82.6% were arranged marriages. Any doubts or issues on sexual matters were not discussed with

anyone in 58.7% of cases and 30.4% of controls. A significant association was found between both the groups for type of marriage and discussion of sexual matters with family, friends or health workers [Table 1].

Sexual and reproductive knowledge

Among the respondents of the study, 34.8% of cases and 56.5% of controls had heard of two or more methods of contraception. When asked if they had used any method of contraception, only 8.7% of cases and only 13% of controls had affirmed it. A total of 15.2% of cases and 42.4% of control were aware of STDs and a minimum of two symptoms [Table 2].

Table 1: Sociodemographic and Sociocultural Characteristics of the Study Population

Demographic Variables	Cases (n=46) mean±SD	Control (n=92) mean±SD	Chi-Square (p)
Age	18.16±0.85	23.98±3.8	-
Age at marriage	17.13±1.040	22.53±3.9	-
Age at last education attended	14.26±2.361	16.63±2.75	-
Family Income (Median, IQR)	10000 (3000–30000)	15000 (2000–100000)	-
Education of Participant			
a. Primary	7 (15.2)	2 (2.2)	13.71 (<0.01)*
b. Secondary	32 (69.6)	55 (59.8)	
c. Intermediate and University	7 (15.2)	35 (38.0)	
Working Status			
a. No	42 (91.3)	73 (79.3)	3.15 (0.07)
b. Yes	4 (8.7)	19 (20.7)	
Religion			
a. Hindu	44 (95.7)	90 (97.8)	0.51 (0.47)
b. Non-Hindu	2 (4.3)	2 (2.2)	
Caste			
a. General	22 (47.8)	51 (55.4)	11.42 (<0.01)*
b. OBC	6 (13.0)	26 (28.3)	
c. SC/ST	18 (39.1)	15 (16.3)	
Type of Family			
a. Joint Family	27 (58.7)	51 (55.4)	0.13 (0.71)
b. Nuclear	19 (41.3)	41 (44.6)	
Number of Siblings			
a. ≤3	6 (13.0)	28 (30.4)	5.00 (0.02)*
b. >3	40 (87.0)	64 (69.6)	
Education of Father			
a. No education	14 (30.4)	24 (26.1)	1.29 (0.73)
b. Primary school	17 (37.0)	43 (46.7)	
c. Secondary school	12 (26.1)	19 (20.7)	
d. Intermediate or University	3 (6.5)	6 (6.5)	
Education of Mother			
a. No education	18 (39.1)	39 (42.4)	4.68 (0.09)
b. Primary school	10 (21.7)	32 (34.8)	
c. Secondary school	18 (39.1)	21 (22.8)	
Occupation of Head of Family			
a. Highly skilled	1 (2.2)	37 (40.2)	16.73 (<0.01)*
b. Skilled	5 (10.9)	17 (18.5)	
c. Semiskilled	7 (15.2)	18 (19.6)	
d. Unskilled	33 (71.7)	20 (21.7)	
Socio-economic Status			
a. Upper-class	1 (2.2)	4 (4.3)	0.79 (0.67)
b. Middle-class	14 (30.4)	32 (34.8)	
c. Lower-class	31 (67.4)	56 (60.9)	
Separated/Dead Parents			
a. No	37 (80.4)	72 (78.3)	0.09 (0.76)
b. Yes	9 (19.6)	20 (21.7)	
Type of Marriage			
a. Arranged Marriage	30 (65.2)	76 (82.6)	5.21 (0.02)*
b. Love Marriage	16 (34.8)	16 (17.4)	
Sexual Matters Discussed with Family, Friends, or Health Worker			
a. Yes	19 (41.3)	64 (69.6)	10.22 (<0.01)*
b. No	27 (58.7)	28 (30.4)	

*p<0.05 (statistically significant)

Healthcare use by study population

In our study, 82.6% of cases and 75% of controls exclusively sought services from government facilities, while 17.4% of patients and 25% of controls utilized both government and

private hospitals. Only 15.2% of cases and 33.7% of controls had encountered contraceptive posters in healthcare facilities. A notable proportion, 80.4% of cases and 68.5% of controls had not attended counselling sessions on contraception.

Table 2: Sexual and Reproductive Knowledge and Health Care Use by Study Population

Study Variables	Cases (n=46) n (%)	Control (n=92) n (%)	Chi-Square (p)
Contraceptive Knowledge (Heard of 2 or more methods)			
a. No	30 (65.2)	40 (43.5)	5.80 (0.02)*
b. Yes	16 (34.8)	52 (56.5)	
Any Method of Contraception Used by Participant or Partner			
a. No	42 (91.3)	80 (87.0)	0.57 (0.45)
b. Yes	4 (8.7)	12 (13.0)	
STD Knowledge (Heard of STD and Symptoms - Minimum 2)			
a. No	39 (84.8)	53 (57.6)	10.19 (<0.01)*
b. Yes	7 (15.2)	39 (42.4)	
Health Care Use by Study Population	Cases (n=46) n (%)	Control (n=92) n (%)	Chi-Square (p)
Healthcare Facility Consulted/Preferred			
a. Government	38 (82.6)	69 (75.0)	1.02 (0.31)
b. Government and Private	8 (17.4)	23 (25.0)	
Contraceptive Posters Seen in Healthcare Facility			
a. No	39 (84.8)	61 (66.3)	5.25 (0.02)*
b. Yes	7 (15.2)	31 (33.7)	
Talks About Contraception Attended			
a. No	37 (80.4)	63 (68.5)	2.20 (0.13)
b. Yes	9 (19.6)	29 (31.5)	
Comfort in Asking Questions to Doctors/Nurses			
a. No	34 (73.9)	67 (72.8)	0.02 (0.89)
b. Yes	12 (26.1)	25 (27.2)	

* $p < 0.05$ (statistically significant)

Additionally, approximately one-fourth of cases and controls felt uncomfortable posing questions to health workers. Notably, the presence of contraceptive posters in healthcare facilities emerged as the only variable significantly associated between the two groups [Table 2].

In bivariate analysis, the education of participants below high school, scheduled caste/scheduled tribe, more than three siblings, not communicating sexual issues, love marriage, not discussing sexual problems with anyone in the family and healthcare workers, lack of contraceptive knowledge, IEC materials or posters not noticed in health care facility were statistically significant ($p < 0.05$) [Tables 3 and 4].

In the multivariate analysis, adjusting for caste, total siblings, education, sexual issues discussion, contraceptive knowledge and IEC materials noticed in healthcare facilities (significant at p value < 0.1), certain factors exhibited notable associations. Individuals with education below high school were 2.4 times more likely (AOR = 2.46; 95% CI 0.89–6.79) to experience teenage pregnancy compared to those with education above high school. Scheduled Castes and Scheduled Tribes showed a 2.3 times higher likelihood (AOR = 2.34; 95% CI 0.94–5.82) of teenage pregnancy compared to those in the General and OBC caste. Having more than three siblings increased the likelihood by 4.4 times (AOR = 4.45; 95% CI 1.53–12.96). Not discussing sexual issues with family or health workers resulted in a 2.8 times higher likelihood (AOR = 2.84; 95% CI 1.25–6.39) of teenage pregnancy compared to those engaging in discussions (p value < 0.05). [Tables 3 and 4].

Discussion

This case control study focused on pregnant teenagers as cases and pregnant adult women as controls, aiming to analyze associated socioeconomic factors, contraception and STD knowledge, and health seeking behaviour. Notably, higher education significantly reduced the risk of adolescent pregnancy, a consistent finding in the Philippine National Demographic and Health Survey 2017.^[12,13] Formal education emerged as a key element in promoting behavioural change and decreasing the risk of early pregnancies.^[14] The study revealed that 13% of participants had more than three siblings, aligning with existing research indicating a consistent association between larger family size and the heightened risk of teenage pregnancy.^[15] Bigger families often contribute to the neglect of children, particularly teenagers. The majority (67.4%) of the teenagers belonged to a lower socioeconomic class, significantly affecting adolescent pregnancy rates and leading to deficiencies in basic amenities. Exploitation by men, promising support to vulnerable girls, is a prevalent issue in such circumstances, supported by studies in various countries.^[16] Interestingly, the proportion of love marriages was lower than arranged marriages, with a higher prevalence of love marriages than a study in Nepal, potentially influenced by the rural residence of most girls in the present study. In contrast, Nepalese teenagers, seeking sexual liberation, often migrated to urban areas like Kathmandu.^[17]

The study revealed a significant disparity in discussions about sexual matters between cases (pregnant teenagers) and controls (pregnant adult women), with controls having higher rates (69.6% vs. 41.3%). Moreover, the research indicated that the

Table 3: Regression Analysis for Selected Variables as Determinants of Teenage Pregnancy (Socio-demographic and Cultural Factors)

Socio-demographic Details	Cases n=46 n (%)	Control n=92 n (%)	OR (95% CI)	AOR (95% CI)
Education of Participant				
a. Above high school	7 (15.2)	35 (38.0)	Ref	Ref
b. Below high school	39 (84.8)	57 (62.0)	3.42 (1.38–8.48)*	2.46 (0.89–6.79)**
Working Status				
a. No	42 (91.3)	73 (79.3)	Ref	-
b. Yes	4 (8.7)	19 (20.7)	2.73 (0.87–8.57)	-
Religion				
a. Non-Hindu	2 (4.3)	2 (2.2)	Ref	-
b. Hindu	44 (95.7)	90 (97.8)	0.489 (0.06–3.58)	-
Caste				
a. General/OBC	28 (60.9)	77 (83.7)	Ref	Ref
b. SC/ST	18 (39.1)	15 (16.3)	3.05 (1.37–6.80)*	2.34 (0.94–5.82)**
Type of Family				
a. Nuclear	19 (41.3)	41 (44.6)	Ref	-
b. Joint Family	27 (58.7)	51 (55.4)	1.14 (0.56–2.34)	-
Siblings				
a. ≤3	6 (13.0)	28 (30.4)	Ref	Ref
b. >3	40 (87.0)	64 (69.6)	2.92 (1.11–7.67)*	4.45 (1.53–12.96)**
Sociocultural Factors	Cases n=46 n (%)	Control n=92 n (%)	OR (95% CI)	AOR (95% CI)
Education of Father				
a. No education	14 (30.4)	24 (26.1)	1.25 (0.56–2.76)	-
b. Primary/Secondary school	29 (63.1)	62 (67.4)	1.17 (0.25–5.41)	-
c. Intermediate or University	3 (6.5)	6 (6.5)	Ref	-
Education of Mother				
a. No education	18 (39.1)	39 (42.4)	Ref	-
b. Primary/Secondary school	28 (60.9)	53 (57.6)	1.15 (0.56–2.36)	-
Occupation of Head of Family				
a. Highly skilled/skilled/semiskilled	13 (28.3)	37 (40.2)	Ref	-
b. Unskilled	33 (71.7)	55 (59.8)	1.71 (0.79–3.67)	-
Socioeconomic Status				
a. Upper class/middle class	16 (34.8)	36 (39.1)	Ref	-
b. Lower class	30 (65.2)	56 (60.9)	1.21 (0.58–2.52)	-
Separated/Dead Parents				
a. No	37 (80.4)	72 (78.3)	Ref	-
b. Yes	9 (19.6)	20 (21.7)	1.14 (0.47–2.76)	-
Type of Marriage				
a. Arranged marriage	30 (65.2)	76 (82.6)	Ref	-
b. Love marriage	16 (34.8)	16 (17.4)	2.53 (1.13–5.71)*	-
Sexual Matters Discussed with Family/Friends/Health Worker				
a. Yes	19 (41.3)	64 (69.6)	Ref	Ref
b. No	27 (58.7)	28 (30.4)	3.25 (1.56–6.78)*	2.84 (1.25–6.39)**

*Significant at $p \leq 0.05$, **Significant at $p \leq 0.1$

likelihood of teenage pregnancy was nearly three times higher if sexual matters were not discussed with family or friends (AOR: 2.84, CI: 1.25–6.39). A parallel community-based study in Eastern Ethiopia echoed these findings, emphasizing how open discussions with parents about reproductive health markedly decreased the probability of adolescent pregnancy. Sharing concerns with close individuals, whether family or friends, shapes young girls' perceptions, fostering a heightened awareness of the associated risks and consequently lowering the likelihood of early pregnancy.^[18,19] Having adequate SRH knowledge may paradoxically impact results, as those with pregnancies might possess additional information on contraceptive methods,

though its implementation remains uncertain.^[20] Community health workers' intervention in preventing teenage childbearing suggests that access to pregnancy prevention services at health facilities, informed by facility provided information, significantly influences adolescent pregnancy avoidance.^[24] Contraceptive expertise, a key component of Sexual and Reproductive Health (SRH) knowledge, showed a significant association with pregnancy occurrence among the cases (p value < 0.05). In this study, 84.8% of cases were not familiar with STDs and associated symptoms, significantly higher than the 57.6% in controls, echoing findings from a semi rural Tanzanian youth study (83.6%).^[21] Increased knowledge about STDs will motivate

Table 4: Regression analysis for selected variables as assessed as determinants of teenage Pregnancy (Sexual and Reproductive knowledge and Health care use)

Sexual and Reproductive knowledge	Cases (n=46) n (%)	Control (n=92) n (%)	OR (95% CI)	AOR (95% CI)
Sexual and Reproductive knowledge				
Contraceptive knowledge (Heard of 2 or more methods)				
a. Yes	16 (34.8)	52 (56.5)	Ref	Ref
b. No	30 (65.2)	40 (43.5)	2.44 (1.17–5.08)*	1.59 (0.67–3.76)
Any method of contraception have you or your sexual partner ever used				
a. Yes	4 (8.7)	12 (13.0)	Ref	-
b. No	42 (91.3)	80 (87.0)	1.58 (0.48–5.19)	-
STD (heard of STD and symptoms-minimum 2)				
a. Yes	7 (15.2)	39 (42.4)	Ref	-
b. No	39 (84.8)	53 (57.6)	4.10 (1.66–10.13)*	-
Health care use				
Health care facility consulted				
a. Government and private	8 (17.4)	23 (25.0)	Ref	-
b. Government	38 (82.6)	69 (75.0)	1.58 (0.65–3.89)	-
Contraceptives posters seen in healthcare facility				
a. Yes	7 (15.2)	31 (33.7)	Ref	Ref
b. No	39 (84.8)	61 (66.3)	2.83 (1.14–7.06)*	1.69 (0.60–4.79)
Talks about contraception attended				
a. Yes	9 (19.6)	29 (31.5)	Ref	-
b. No	37 (80.4)	63 (68.5)	1.89 (0.80–4.43)	-
Comfort in Asking Questions to Doctors/Nurses				
a. No	34 (73.9)	67 (72.8)	Ref	-
b. Yes	12 (26.1)	25 (27.2)	1.06 (0.47–2.36)	-

*Significant at $p \leq 0.05$, **Significant at $p \leq 0.1$

youth to refrain from engaging in sexual activity, which will lower their risk of becoming pregnant. Significantly higher percentages of research participants in each group stated not seeing posters on contraceptives in medical facilities and also girls who were not observed contraceptive posters in healthcare facilities exhibited nearly three times the likelihood of getting pregnant compared to those who did not (OR: 2.83, CI: 1.14–7.06).

Teenage girls' contraceptive behaviour is determined by their exposure to information, education and communication materials. These interactions raise awareness of pregnancy. Health Belief Model has supported this and also in an RCT conducted in the USA, which improves contraceptive choice-making. However, raised information on contraceptive availability puts the risk of proceeding to have sexual relationships due to the readiness of contraceptive choices.^[22,23]

As a primary care physician, SRH services should be delivered while maintaining confidentiality and in a trustful empathetic relationship with the adolescents. Any consultation with an adolescent should include a review of lifestyle habits, including attitudes toward sexual life and specific knowledge in the area of contraception and STIs, to bridge the knowledge, attitude, and practice gap.

Limitations

There is a chance of recall bias. The findings may be difficult to generalize as the study has been carried out in the hospital setting.

Conclusion

In summary, our study underscores the influence of factors such as lower education, and belonging to ethnic minority castes on early-age pregnancies. Additionally, knowledge about sexual issues, awareness of STI/RTI transmission, and a higher number of siblings are associated with adolescent pregnancy. Integrating these findings into existing Adolescent Reproductive and Sexual Health (ARSH) platforms for regular engagement and sensitization is crucial. Ensuring adolescent-friendly health facilities and making Information, Education, and Communication displays mandatory can create a non-threatening environment, particularly in areas with high adolescent fertility rates. National efforts to combat early marriage, improve education, and empower women, alongside addressing the rights and needs of marginalized women, are essential.

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Conflicts of interest

There are no conflicts of interest.

References

1. Adolescent pregnancy. Available from: <https://www.who.int/news-room/fact-sheets/detail/adolescent-pregnancy>. [Last accessed on 2024 Apr 07].

2. NFHS-5_Phase-II_0.pdf. Available from: https://main.mohfw.gov.in/sites/default/files/NFHS-5_Phase-II_0.pdf. [Last accessed on 2024 Apr 07].
3. (PDF) Levels, Trends and Differentials of Teenage Childbearing in India. Available from: https://www.researchgate.net/publication/367037471_Levels_Trends_and_Differentials_of_Teenage_Childbearing_in_India. [Last accessed on 2024 Apr 07].
4. UN Women – Headquarters. Summary Report: The Beijing Declaration and Platform for Action turns 20. 2023. Available from: <https://www.unwomen.org/en/digital-library/publications/2015/02/beijing-synthesis-report>. [Last accessed on 2024 Apr 07].
5. Ursache A, Lozneau L, Bujor I, Cristofor A, Popescu I, Gireada R, *et al.* Epidemiology of adverse outcomes in teenage pregnancy-A Northeastern Romanian tertiary referral center. *Int J Environ Res Public Health* 2023;20:1226.
6. Mombo-Ngoma G, Mackanga JR, González R, Ouedraogo S, Kakolwa MA, Manego RZ, *et al.* Young adolescent girls are at high risk for adverse pregnancy outcomes in sub-Saharan Africa: An observational multicountry study. *BMJ Open* 2016;6:e011783.
7. Leftwich HK, Alves MVO. Adolescent pregnancy. *Pediatr Clin North Am* 2017;64:381–8.
8. Agampodi TC, Wickramasinghe ND, Jayakodi HG, Amarasinghe GS, Warnasekara JN, Hettiarachchi AU, *et al.* The hidden burden of adolescent pregnancies in rural Sri Lanka; Findings of the Rajarata pregnancy cohort. *BMC Pregnancy Childbirth* 2021;21:494.
9. Poudel S, Razee H, Dobbins T, Akombi-Inyang B. Adolescent pregnancy in South Asia: A systematic review of observational studies. *Int J Environ Res Public Health* 2022;19:15004.
10. Adolescents and Young Adults | Prevention | STDs | CDC. 2023. Available from: <https://www.cdc.gov/std/life-stages-populations/adolescents-youngadults.htm>. [Last accessed on 2024 Apr 07].
11. Ayele BG, Gebregzabher TG, Hailu TT, Assefa BA. Determinants of teenage pregnancy in Degua Tembien District, Tigray, Northern Ethiopia: A community-based case-control study. *PloS one* 2018;13:e0200898.
12. Neupane N, Pooja B, Kaphle HP. Factors associated with teenage pregnancy: A case control study. *J Health Allied Sci* 2019;9:21–7.
13. Kunnuji MON, Eshiet I, Nnorom CCP. A survival analysis of the timing of onset of childbearing among young females in Nigeria: Are predictors the same across regions? *Reprod Health* 2018;15:173.
14. Amina JN. Health Information, Behaviour Change and Teenage Pregnancies in Secondary Schools: a Study of Nairobi County [Internet] [Thesis]. University of Nairobi; 2019. Available from: <http://erepository.uonbi.ac.ke/handle/11295/108914>. [Last accessed on 2024 Jun 05]
15. Tabei K, Cuisia-Cruz ESS, Smith C, Seposo X. Association between teenage pregnancy and family factors: An analysis of the Philippine national demographic and health survey 2017. *Healthcare (Basel)* 2021;9:1720.
16. Poudel S, Upadhaya N, Khatri RB, Ghimire PR. Trends and factors associated with pregnancies among adolescent women in Nepal: Pooled analysis of Nepal demographic and health surveys (2006, 2011 and 2016). *PLoS One* 2018;13:e0202107.
17. Thapa P, Thapa P, Shrestha DB, Budhathoki P, Karki B, Mahat B. Teenage pregnancy and the sociodemographic attributes as a major contributor: Findings from an urban referral center in Nepal. *World J Obstetr Gynecol* 2021;10:16–25.
18. Mezmur H, Assefa N, Alemayehu T. Teenage pregnancy and its associated factors in Eastern Ethiopia: A community-based study. *Int J Womens Health* 2021;13:267–78.
19. Ahinkorah BO, Hagan JE, Seidu AA, Budu E, Hormenu T, Mintah JK, *et al.* Access to adolescent pregnancy prevention information and services in Ghana: A community-based case-control study. *Front Public Health* 2019;7:382.
20. Musinguzi M, Kumakech E, Auma AG, Akello RA, Kigongo E, Tumwesigye R, *et al.* Prevalence and correlates of teenage pregnancy among in-school teenagers during the COVID-19 pandemic in Hoima district western Uganda-A cross sectional community-based study. *PLoS One* 2022;17:e0278772.
21. Abdul R, Gerritsen AAM, Mwangome M, Geubbels E. Prevalence of self-reported symptoms of sexually transmitted infections, knowledge and sexual behaviour among youth in semi-rural Tanzania in the period of adolescent friendly health services strategy implementation. *BMC Infect Dis* 2018;18:229.
22. Hall KS. The health belief model can guide modern contraceptive behavior research and practice. *J Midwifery Womens Health* 2012;57:74–81.
23. Anderson S, Frerichs L, Kaysin A, Wheeler SB, Halpern CT, Lich KH. Effects of two educational posters on contraceptive knowledge and intentions: A randomized controlled trial. *Obstet Gynecol* 2019;133:53–62.
24. Maravilla JC, Betts KS, Abajobir AA, Cruz CCE, Alati R. The role of community health workers in preventing adolescent repeat pregnancies and births. *J Adolesc Health* 2016;59:378–90.