

AWARENESS REGARDING TEENAGE PREGNANCY AND ITS SOCIOCULTURAL ASPECTS AMONG THE UNIVERSITY STUDENTS

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ABSTRACT

Background: Teenage pregnancy, also referred to as adolescent pregnancy, is a phenomenon of occurrence of undesirable conception among girls who are 10-19 years old and is known to have sociocultural implications. **Objectives:** To assess the awareness regarding teenage pregnancy and its sociocultural aspects among students Panjab University. **Methodology:** A cross-sectional, descriptive survey was conducted to collect quantitative data on awareness regarding teenage pregnancy and its sociocultural issues among the students of Panjab University in Chandigarh. A pre-designed and pre-structured questionnaire was used to record data pertaining to socio-demographic information, knowledge, attitude and practices related to awareness of teenage pregnancy with main focus on its sociocultural aspects. **Results:** Most respondents 201(91%) identified adolescent pregnancy as the pregnancy occurring among the females belonging to the age group of 13-19 years of age. Lack of sex education was reported to be the most predominant cause of and factor contributing to teenage pregnancy by 190 (86%) and 179 (81%) of participants respectively. The majority of 201(91%) respondents agreed that teenage pregnancy affects the educational prospects of an individual. About 180 (82%) participants opined that teenage pregnancy causes teenagers to suffer from stigma and social isolation. Most 164 (75%) participants were of the opinion that sex before marriage was not permitted as per their culture but was still in practice. **Conclusion:** The participants were found to have a reasonably fair level of awareness regarding causes and factors contributing to teenage pregnancy and its sociocultural implications on an individual's life.

KEYWORDS

Teenage Pregnancy, sociocultural Aspects, university Students, Stigma

INTRODUCTION

Pregnancy is a physiological process and a significant life event that profoundly influences the physical, mental, psychological and social aspects of a woman's life. The risks and complications associated with the pregnancy become even more prominent when it occurs in extremes of age group i.e. before 18 years and after 35 years of age. Conception when occurs after 35 years of age includes maternal and fetal complications such as gestational diabetes mellitus and hypertension, fetal growth anomalies and chromosomal disorders. However, teenage or adolescent pregnancy defined as the pregnancy occurring in adolescent girls who are 10-19 years old is associated with adverse birth outcomes including eclampsia, puerperal sepsis, postpartum haemorrhage, preterm birth, low birth weight and neonatal deaths with a higher risk present among adolescent mothers of age 10-19 years as compared to those who were 20-24 years old (Ganchimeg et al., 2014; World Health Organization [WHO], 2024). Adolescents aged 15-19 years old belonging to low- and middle-income countries (LMICs) were reported to have an estimated 21 million pregnancies each year out of which approximately 50% were unwanted and resulted in about 12 million births (Darroch et al., 2016; Sully et al., 2020). It was highlighted in 2023 that globally, the adolescent birth rate for girls of age group 10-14 years was estimated at 1.5 per 1000 women with higher rates reported in Sub-Saharan Africa (4.4) followed by Latin America and the Caribbean (2.3) (United Nations, Department of Economic and Social Affairs, Population Division, 2020). In many countries of South Asia, child marriage is most common among the poor families where it is considered to be a household strategy to cope with economic insecurity particularly due to rising schooling and transportation fee. The incidence of child marriage among girls is more in comparison to the boys, but it is reported to be higher among those who belong to rural areas, come from poor families and have little to no access to education. Families of these girls see child marriage as a way to protect their daughters against perceived threats such as premarital sex, harassment and abuse at school and conflicts (United Nations Children's Fund [UNICEF], 2019). Several risk factors which attribute to higher rates of teenage pregnancy include lower levels of education, poor socioeconomic status, early marriage and child bearing and child sexual abuse (WHO, 2024).

Talking about the Indian subcontinent, it is home to the largest

adolescent and youth population with adolescents (10-19 years) and youth (15-24 years) numbered at 253.2 million and 231.9 million accounting for 20.9% and 19.2% respectively of India's total population (Ministry of Home Affairs, 2011).

According to a report published by UNFPA in 2025, it was reported that India has an adolescent birth rate as 14.1 births per 1,000 girls aged 15-19 years (United Nations Population Fund [UNFPA], 2025). National Family Health Survey (NFHS-5) in 2019-21, about 7% of teenage women aged 15-19 years in India had been either pregnant or had already given birth (International Institute for Population Sciences [IIPS] & ICF, 2021). Young women who married before the age of 18 years were less likely to be involved in their marriage planning and were more vulnerable to face the physical or sexual violence by their spouse or had experienced stillbirth or abortion (Santhya et al., 2010). The key determinants of teenage pregnancy are deeply rooted in various socioeconomic and cultural elements such as early marriage, caste and religious systems, sexual violence, sex work, lower socioeconomic status and the rural-urban disparities (Srinivasan, 2024).

The evidence shows that there are sufficient studies that have primarily explored the major areas of understanding and practices related to teenage pregnancy while topics related to perceptions and experiences were relatively less investigated. Previous literature has also identified that misconceptions, lack of understanding and practices without knowing the consequences are responsible for early pregnancies (Panda et al., 2023). There is availability of extensive data that predominantly focuses on prevalence, determinants, maternal and neonatal complications and reproductive health outcomes among adolescents. Considerable attention has been given to the assessment of sociocultural factors that contribute to teenage pregnancy including early marriage, child sexual abuse, socioeconomic disparities, denial of attainment of education and social stigma. However, awareness regarding teenage pregnancy particularly its sociocultural dimensions among adolescents remains an underexplored area.

The changes in the sexual behaviour of the adolescents and the increased awareness about the sexual acts through various sources and modes of information has led to an increase in the likelihood of

indulging in risky sexual behaviour by the adolescents (Kumar et al., 2017). Due to the limited availability of studies in India, particularly in the Northern part of the country, it is imperative to address the societal issue of teenage pregnancy among the adolescents with a more focused attention to its sociocultural implications as these play a crucial role in shaping an individual's life during the early stages of life. Being located in an urban setting and having a well-developed educational infrastructure, Panjab University in Chandigarh attracts students from neighbouring states that differ from each other in terms of cultural, social and geographical aspects, thus providing a demographically diverse setting for the present study.

METHODOLOGY

Study Design

A cross-sectional, descriptive study was conducted in which a pre-designed and pre-structured questionnaire was administered to record the sociodemographic details and quantitative data related to knowledge of the participants regarding the sociocultural aspects of teenage pregnancy.

Study settings

The study was conducted in Panjab University, Chandigarh which is a large public University and is known to have social and geographical diversity among the student body that belong to states like Punjab, Haryana and Himachal Pradesh and Union Territories like Chandigarh. The city of Chandigarh is predominantly an urban setting with a high level of literacy rates and is well-known for its extensive educational infrastructure.

Study participants

The study population was constituted by male and female students aged 18-30 years who were enrolled in Panjab University. Both undergraduate and postgraduate students were approached to record their perspectives on the topic concerned. Both married as well as unmarried participants were surveyed. Participants who had any chronic or psychiatric illness were excluded from this study.

Sample Size and Sampling

The sample size for our study was calculated using the formula: Sample size (n) = $4PQ/d^2$ where estimated Prevalence (P) = 50%, Q = 1-P and D = absolute error 10% yielded value of 100. Further, the sample size was doubled to 200 to account for non-response and increased by 10% resulting in 220 participants. Stratified random sampling technique and strategic proportional allocation was employed to ensure proportional representation of participants across target groups. Selection of participants was done by generating computerised random numbers.

Data Collection Tool

A pre-designed and pre-structured questionnaire translated in English, Hindi and Punjabi, was used after it got reviewed by public health experts and pilot tested. It consisted of sections of questions related to socio-demographic details of participants and awareness in terms of knowledge, attitude and practices related to teenage pregnancy.

Scoring

The domain of knowledge consisted of nine items for which scoring was done out of 18 where a score of ≥ 13 indicates adequate, 9-12 moderate and ≤ 8 inadequate. Attitude consisted of eight Likert items with 40 as maximum rating out of which a rating of ≥ 24 and < 24 indicates positive and neutral/negative attitude respectively. Practices consisted of eight items with 8 as maximum score wherein a score of ≥ 5 signifies satisfactory and < 5 unsatisfactory practices (Naghizadeh & Mirghafourvand, 2022).

Statistical analysis

The data analysis was done by using descriptive statistics, chi-square tests and Pearson correlation. The value of $P < 0.05$ was considered statistically significant.

Participation was voluntary and informed consent was obtained.

RESULTS

Most participants 91% (201) were aware of the correct definition of teenage pregnancy. However, only a small percentage of participants either gave incorrect definition or did not know about it. This shows a good level of awareness about the term.

Table 1. Distribution of study participants according to their definition of teenage pregnancy

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Do you know what teenage pregnancy is?	Number
Getting pregnant between 13 and 19 years old	201
Getting pregnant above 20 years	8
Getting pregnant below age 12	6
I don't know	5

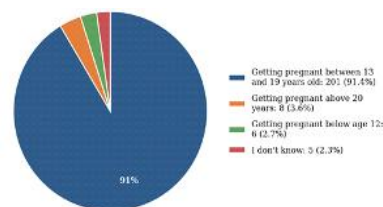


Figure 1. Distribution of study participants according to their definition of teenage pregnancy

The lack of sex education was the most common perceived cause of teenage pregnancy as opined by 190 participants followed by early marriage by 167 respondents. The less often causes of teenage pregnancy included poverty with 54, followed by peer pressure and sexual abuse with 48 participants each.

Table 2. Distribution of study participants according to their thinking regarding causes of teenage pregnancy

What do you think are the causes of teenage pregnancy? (Can select more than one)	Number
Lack of sex education	190
Early marriage	167
Poverty	54
Peer pressure	48
Sexual abuse	48

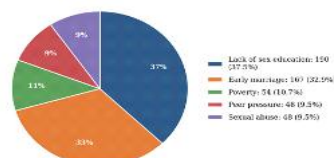


Figure 2. Causes of teenage pregnancy as perceived by study participants (multiple responses allowed; percentages in the chart are of total responses)

The lack of sex education was opined as a huge contributing factor by 179 participants. Other reported factors included cultural or religious norms by 77 participants followed by peer pressure and media influence as opined by 72 and 65 participants respectively. Also, a small number of respondents i.e. 7 mentioned other factors. Since multiple options were allowed, the number exceeded more than 100%.

Table 3. Opinion of study participants regarding factors contributing to teenage pregnancy

What is the biggest factor contributing to teenage pregnancy? (can select more than one)	Number
Lack of sex education	179
Cultural or religious norms	77
Peer pressure	72
Media influence	65
Any other	7

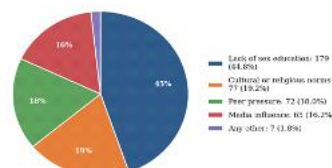


Figure 3. Biggest factors contributing to teenage pregnancy as reported by study participants (multiple responses allowed; percentages in the chart are of total responses)

Effect of teenage pregnancy on education

Most participants 91% (201) agreed that teenage pregnancy affects education prospects of an individual, whereas 6% (13) did not agree

and 3%(6) gave no comment on this matter. Thus, our study found that most participants felt that teenage pregnancy negatively impacts the educational opportunities and academic performance of an individual.

Table 4. Opinion of study participants regarding effects of teenage pregnancy on education

Do you think teenage pregnancy affects education?	Number
Yes	201
No	13
No comments	6

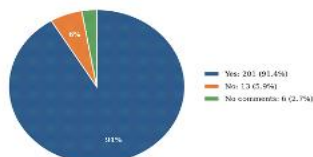


Figure 4. Opinion of study participants regarding effect of teenage pregnancy on education

Our study found that nearly three-fourths i.e. 77%(170) of respondents agreed or strongly agreed that teenage pregnancy is an issue of a major concern in the community and about 88%(194) agreed or strongly agreed that it is risky. Most 70%(152) participants disagreed or strongly disagreed when enquired about whether it is acceptable for girls to have children before the age of 18 years. A majority 76%(167) of subjects were of the opinion that parents should be the primary source of sex education for their children. However, the opinion on teenagers' access to contraception and family planning services was found to be more divided with 54%(120) participants who agreed or strongly agreed followed by 33%(72) who had a neutral opinion and about 13%(28) disagreed or strongly disagreed with it.

Table 5. Distribution of study participants on attitude and perception regarding teenage pregnancy

S. No	Question	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	Do you think teenage pregnancy is risky?	135	59	15	5	6
2	Is teenage pregnancy a major issue in the community?	90	80	37	9	4
3	Parents should be the primary source of sex education for their children	77	90	35	17	1
4	Teenagers should have access to contraception and family planning services	53	67	72	14	14
5	It is acceptable for girls to have children under the age of 18	6	20	41	61	91

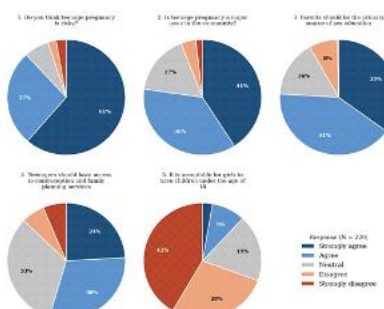


Figure 5. Attitude and perception of study participants regarding teenage pregnancy (statements 1–5 as numbered in Table 5)

This study found that a large majority 82%(180) of participants were of the opinion that teenagers suffer from stigma and social isolation due to teenage pregnancy, while 10%(22) did not share the same opinion and 8%(18) refrained from commenting on this matter.

Table 6. Opinion of study participants regarding suffering of stigma and isolation by teenagers

Do teenagers suffer stigma and isolation?	Number
Yes	180
No	22
No comments	18

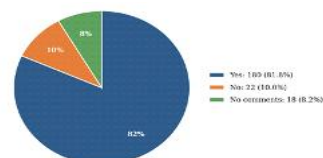


Figure 6. Opinion of study participants regarding stigma and isolation suffered by teenagers

Most 75%(164) participants reported that sex before marriage is not permitted in their culture. Only 10%(21) opined that it is permitted followed by 15%(33) who gave no comment and nearly 1%(2) gave a different response in this regard.

Table 7. Opinion of study participants regarding acceptance of sex before marriage in their culture

Is sex permitted before marriage in your culture?	Number
No	164
No comments	33
Yes	21
Any other	2

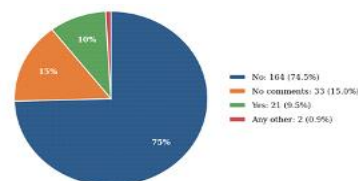


Figure 7. Opinion of study participants regarding acceptance of sex before marriage in their culture

DISCUSSION

In our study which was conducted among 220 students of Panjab University in Chandigarh we found that most (91%) participants correctly defined the phenomenon of teenage pregnancy as the pregnancy which occurred among adolescent girls who are aged between 13 and 19 years, whereas 3% answered an age below 12 years, 4% above 20 years, and 2% were not aware of it. According to the WHO (2024), teenage pregnancy is defined as the phenomenon of pregnancy in girls who are 10 to 19 years old. Thus, our study concluded that the understanding of the University students was essentially correct, although they were not certain about its lower age limit.

The level of awareness among the participants was found to be considerably higher than that reported among those adolescents who were school-going. According to a study conducted in Theni district, Tamil Nadu, about 22.6% of adolescent girls had adequate knowledge about teenage pregnancy (Pounraj et al., 2025) whereas in a study conducted in Jumla, Nepal reported that out of 334 school girls, only 6% of them had adequate levels of awareness while 68% had inadequate levels of awareness about teenage pregnancy (Shrestha et al., 2021). These studies measured the overall levels of awareness rather than the definition alone but the conclusion remained constant i.e. older, University level students are more aware as compared to the younger adolescents.

The factors that were attributable for higher level of awareness in our

sample include higher literacy rate, better access to digital information and frequent exposure to health-related discussions. In a scoping review of Indian studies likewise described the misconceptions about pregnancy and its prevention as a recurring problem among adolescent girls (Panda et al., 2023). Additionally, about one out of ten students gave an incorrect definition or did not know about it, indicating that gaps persist even in an educated group.

In our study, a large percentage of students i.e. 86 % and 76 % considered lack of sex education and early marriage to be the main causes of teenage pregnancy respectively, followed by poverty which was opined by 25% of participants whereas peer pressure and sexual abuse were chosen as far less often causes each by 22% of participants. Early marriage was recognized as a factor associated with poor reproductive health outcomes among young women, a finding which was consistent with Indian evidence (Santhya et al., 2010) and it was also found to be associated with higher maternal and infant mortality across 97 countries (Raj & Boehmer, 2013). The emphasis on lack of sex education is consistent with the findings of Panda et al. (2023), who identified that misconceptions were the driving factor for unsafe sexual practices among Indian adolescents, and this finding was also in agreement with an earlier pilot study which was conducted at Panjab University in which most students relied on informal sources to obtain information related to sexual health and nearly 95% of respondents showed support towards the comprehensive sex education (Kumar, 2012).

However, the students were less aware of some factors that were stressed upon in the literature. Srinivasan (2024) had described factors such as poverty, low education, limited autonomy of girls and gender-based power imbalance as the structural determinants, which were more prominent, particularly in rural and low-income communities and these constituted contributing factors for the incidence of teenage pregnancy. Only a quarter of the students of our study stated poverty, while gender inequality was not among the options offered. According to Panda et al. (2023), who reported that curiosity and peer influence were important drivers, yet only 22% of students had opined peer pressure as the answer. This finding was suggestive of a predominantly urban (78.6%) and educated sample that explained the incidence of teenage pregnancy was mainly an outcome of lack of information rather than that of economic or social pressure. In western part of Kenya where beliefs such as avoidance of and dislike towards the condom use and the viewpoint that adoption of family planning methods imposed a threat to future fertility or it encouraged promiscuity were found to be the factors that played a role in sustenance of pregnancy risk (Mason et al., 2025). Examination of the existence of such beliefs was not conducted as a part of our study.

A large majority of participants (82%) believed that pregnant teenagers suffered from stigma and social isolation, while 10% showed disagreement and 8% offered no opinion on this. This finding was consistent with that of Indian literature that reported pregnancy among unmarried teenagers was highly stigmatised and can lead to poor mental health outcomes in the form of social isolation, psychological distress and depression (UNFPA, 2025). Gupta et al. (2015) found that stigma around discussion related to sexuality played a role in preventing adolescents from accessing accurate and reliable information and services, while Panda et al. (2023) linked such outcomes with the conservative social norms.

The perception of students also echoed the lived experience of adolescent mothers elsewhere. In a study conducted among 15 adolescents who were pregnant (> 3months) or who had given birth (<3months) at Uganda, it was revealed that the adolescent mothers had experienced stigma through lack of social support from their families, friends and community, multiple forms of abuse and negative judgment. This led to manifestations of stigma that negatively impacted their psychosocial wellbeing and resulted in denial to access socioeconomic resources and educational opportunities (Sakakibara et al., 2024). In the case of our study, participants had expressed opinions, largely as observers, whereas the Uganda study had recorded the real life experience of the affected girls. Thus, there was a difference in terms of source of information in both the studies.

In our study, nearly three quarters of students (75%) said that sex before marriage was not permitted in their culture, about 10% said it is permitted, and 15% refrained from giving any comments about it. A similar pattern was observed in a survey conducted among 600

adolescents in Surat i.e. about 16.9% of college-going students and 13.3% of out-of- college adolescents had shown acceptance towards the premarital intercourse whereas kissing was accepted by 81.8% and 63.3% respectively, and most respondents were of the belief that a couple who had engaged in premarital sex should marry (Vyas et al., 2017). In our study, the figure for acceptance is somewhat lower, but in both the settings the majority of participants showed disapproval of premarital intercourse and more tolerance towards lesser forms of intimacy. There was a slight difference in the questions asked, as our students were enquired about what their culture permits rather than their own personal acceptance.

It was noted that cultural disapproval did not mean the absence of behaviour. In another study which was conducted among 500 commerce college students in Mumbai, about 48% of males and 18% of females had reported to have experienced the premarital sex (Mutha et al., 2014). Furthermore, the literature added that unmarried teenage pregnancies were often concealed and went unreported because of stigma around it and the presence of fear of social consequences, which can lead to unsafe abortion and unassisted delivery (Mason et al., 2025; Srinivasan, 2024). Strong disapproval in combination with limited scope for having open discussion about teenage pregnancy may therefore push the problem into secrecy and away from health services.

RECOMMENDATIONS

Based on the findings of our study, the following recommendations can be made:

1. Early introduction and continuation of comprehensive sex education among the adolescents should be encouraged. This resonates with our finding in which most participants (86%) opined that lack of sex education was the main cause of teenage pregnancy. Thus, in order to address this, provision of age-appropriate education on puberty, relationships, concept of consent, contraception and the consequences of early pregnancy should begin in schools and continue later also at the college and university level. It is also necessary to ensure that this doesn't lead to increase in the sexual promiscuity among adolescents.

2. Our study found that about 76% of participants felt that parents should act as the main source for dissemination of sex education among adolescents. Thus, parents can play a significant role in this by having an open and healthy discussion with their children. The schools can also play a role in this by organising awareness sessions for parents, parent-teacher meetings and community health workers can also help in making them well-prepared to discuss these topics more accurately and without any hesitation.

3. Since early marriage was the second most commonly identified cause (76%), it is essential to strengthen awareness against early marriage. Community campaigns should be organized to explain the Prohibition of Child Marriage Act, 2006 and the consequences of child marriage on health and education, keeping the rural areas and economically weaker families as the centre of attention.

4. To reduce the stigma and tackle the school dropout due to teenage pregnancy, young mothers should be provided with support to continue their education. This aligns with one of the key findings of our study where most participants believed that teenage pregnancy negatively impacts education (91%) and leads to stigmatization and social isolation (82%) of affected teenagers. Schools and colleges can address this by following non-judgmental policies that allow pregnant and parenting teenagers to continue or resume their studies, along with access to counselling.

5. The participants of our study had a divided opinion on teenagers' access to contraception, with only 54% who showed agreement to it. Thus, it is necessary to ensure that youth-friendly reproductive health services are easily available, accessible and affordable for the adolescents. The health centres at University should offer services like confidential counselling and should act as an accurate and reliable source of information on matters related to contraception and its importance, and also link students with Adolescent Friendly Health Clinics under the Rashtriya Kishore Swasthya Karyakram (RKSK).

6. The awareness programmes should also address the socioeconomic causes of teenage pregnancy. In our study, about one-fourth or lesser than that of participants recognized poverty, peer pressure and sexual abuse. These structural causes of teenage pregnancy along with gender inequality should be explained by seminars, workshops, information,

education and communication (IEC) materials and digital platforms. 7. It is essential to promote having an open and healthy discussion regarding the cultural norms around sex before marriage. According to one of the findings of our study, about 75% of participants opined that premarital sex was not permitted in their culture though the evidence shows that it's still in practice. Encouragement of programmes that serve as accurate and reliable sources of information without moral judgement should be done so that affected teenagers seek early help without concealing their pregnancy. Regular assessment of awareness should be carried out. For evaluation of educational programmes and to identify whether or not they are working, periodic surveys of knowledge, attitude and practices should be performed. Future multicentric studies that include rural college and school-going adolescents should be conducted and use of interviews and focus group discussions can further help to understand the belief system and lived experiences in greater depth.

STRENGTHS AND LIMITATIONS

Strengths

The sociocultural aspects pertaining to teenage pregnancy is a domain which has received little attention in North India. Thus, our study aimed to fill this research gap. The sample size being relatively large to reduce selection bias. The demographically diverse study participants were included, which gave a variable group of respondents. A pre-tested and pre-designed questionnaire was used that covered various sections of questions investigating several aspects of teenage pregnancy in terms of its awareness, including definition, causes, contributing factors, effect on education, attitude, stigmatization and cultural acceptance of sex before marriage.

LIMITATIONS

The study also has some limitations. The study being cross-sectional cannot establish cause-and-effect relationships. Other limitations include collection of self-reported data and due to the responses of participants related to sensitive topics such as sex before marriage and contraception resulting in social desirability bias. The study was carried out in a single University with predominantly urban and educated students so the findings may or may not be applicable to teenagers with a rural background, school-going adolescents or youth outside formal education, who are often more vulnerable to the risk of teenage pregnancy. Lack of exploration of important factors such as gender inequality and myths about contraception due to the questions that were investigated in the study being closed-ended with fixed options. Additionally, the question on sex before marriage enquired about what the participants' culture permits, not about their own personal views or behaviour.

CONCLUSION

Overall, the study showed that students of Panjab University, Chandigarh have a reasonably good level of awareness regarding teenage pregnancy and its sociocultural aspects. Strong disapproval and limited open discussion may force the affected teenagers to conceal pregnancy and thus, discourage them from seeking appropriate healthcare services. A joint and collective effort by families, educational institutions, health services and the community is required to help in prevention of teenage pregnancy. Other measures that can play a role in curbing this issue include provision of comprehensive sex education, youth-friendly reproductive health care services, ensuring active involvement of parents, efforts to be made in the direction to end early marriage and reduce stigma around it, and support for young mothers to continue their education.

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CONFLICT OF INTEREST: None declared

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