

## Sex Education in the Prevention of Teenage Pregnancy in Lambayeque

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### KEYWORDS

Comprehensive sexual education (CSE), STD, sexual education.

### ABSTRACT

Comprehensive sexual education (CSE) seeks to prepare adolescents for a safe and healthy life. This study evaluated the effectiveness of sexual education programs in preventing adolescent pregnancy in Lambayeque, with a focus on their impact on reducing the rate of adolescent pregnancy, barriers and opportunities to improve sexual education in the region, the methodology, a bibliographic review was carried out and public health statistics were analyzed, the results eighty-five percent of students said their understanding of STD prevention and contraceptive techniques had significantly increased. This result is in line with research that demonstrate how well-designed educational initiatives can greatly increase young people's awareness of and ability to abstain from harmful sexual conduct. Additionally, 70% of respondents showed more positive attitudes toward contraceptive use, compared to 50% before the program was implemented. This change in attitudes is consistent with research indicating that comprehensive sexuality education can change attitudes toward contraception and promote safer sexual behaviors, disparities in the implementation and reach of sexual education programs in Lambayeque explain the differences in students' knowledge and attitudes. Improving coverage, ensuring the quality and comprehensive content of programs, providing adequate training to educators, and obtaining greater institutional and cultural support are crucial steps to increase the effectiveness of sexuality education in the region.

## 1. Introduction

Adolescent pregnancy is a global public health challenge that significantly affects the well-being of young women and their communities. In poor countries, an estimated 21 million adolescents between the ages of 15 and 19 become pregnant annually, around 12 million pregnancies end in live births (WHO, 2024). This phenomenon not only has direct implications on the physical and mental condition of adolescent girls, but also perpetuates cycles of poverty and limits future educational and employment opportunities. Comprehensive sexuality education has been shown to be a useful strategy for reducing the rate of adolescent pregnancy in various parts of the world by equipping young people with the knowledge and skills required to make responsible decisions regarding their sexual and reproductive health (Kumar, 2018).

Globally, sex education programs have varied in focus and effectiveness. In Europe, for example, the Nordic countries have implemented comprehensive sex education programs that have managed to drastically lower the rate of teenage pregnancies. Sweden and the Netherlands have some of the lowest rates of teenage pregnancy globally, with 4 and 5 births per 1,000 adolescents respectively (Kirkbride, 2024). In contrast, in certain parts of Africa and Latin America, sex education remains limited, with a predominantly focus on abstinence, which has proven to be less effective in preventing unintended teenage pregnancies. In Uganda and Nigeria, where comprehensive sexuality education is less accessible, adolescent pregnancy rates are significantly higher, with 111 and 106 births per 1,000 adolescents, respectively (Kirkbride, 2024).

In the Peruvian context, the situation is no different, pregnancy remains a critical problem, especially in regions with restricted availability of health and education services. The national adolescent pregnancy rate is 12.6%, but in some regions this figure is even higher (INEI, 2023). The Lambayeque region is no exception, with an incidence of 18%, Lambayeque has one of the highest rates of teenage pregnancies in the nation, according to data from the National Institute of Statistics and Informatics (INEI, 2023). This condition is exacerbated by cultural barriers, inadequate access to sex education, and a shortage of reproductive health services.

In Lambayeque, sex training programs have been implemented inconsistently, and the effectiveness of these programs is still a matter of debate. Previous studies indicate that sex education in schools varies in content and quality, and often does not comprehensively address the needs of adolescents. A recent study found that only 60% of schools in Lambayeque implement some type of program regarding sex education, and of these, only 25% offer comprehensive programs that include topics such as contraceptive use and reproductive health (Mendoza). et al., 2022). However, there are promising initiatives and efforts by local organizations and the

government to improve this situation.

This study aims to analyze the effectiveness of sex education programs implemented in Lambayeque, to evaluate their effect on reducing the rate of teenage pregnancies. Through a multidisciplinary approach, both barriers and opportunities to improve sexual education and, therefore, the reproductive well-being of adolescents in this area will be examined.

## **2. Methodology**

This study was qualitative using focus groups with different stakeholders, obtaining a review of 40 articles and 10 reports and documents from websites of government institutions related to groups in Lambayeque.

Sources of Information:

Academic databases: PubMed, Scielo, Google Scholar, Redalyc, Scopus.

Reports and documents from governmental organizations and NGOs.

Search Strategy:

Use of keywords and combinations such as: "sex education", "teenage pregnancy", "Lambayeque", "prevention", "educational programmes".

The Boolean operators AND, OR, and NOT were used to focus the search.

Study Environment

The research will be carried out in Lambayeque, in collaboration with a non-governmental organization.

Study Participants

Literature review will be used to identify and recruit different stakeholders, such as adolescents, nurses, community members, teachers, psychologists, and social workers, to participate in the study. The detailed eligibility criteria are detailed below:

Selection criteria

Inclusion criteria

Articles on pregnant adolescents, adolescent mothers who had already given birth after 6 weeks at the time of data collection. Adolescents aged 15 to 19 years, as well as key informants who are directly or indirectly involved in adolescent-related matters, such as teachers, social workers, psychologists, nurses, parents, and community members. Publications in the last 5 years. Articles in Spanish and English. Research that directly addresses sex education and adolescent pregnancy.

Exclusion Criteria

The study will not include articles about adolescents from another region.

Data collection methods and procedures

Researchers meet and discuss their interests, concerns and decide the focus of their research. Then, in this phase, researchers will explore and describe stakeholder perspectives regarding the development of strategies to optimize sexual health education in order to prevent adolescent pregnancy in the Lambayeque region. The researchers will analyze the data, this will help the researchers reflect on what they have discussed to verify if the information shared with the researchers is captured correctly and represents the true meaning of what they have shared with the researchers.

Data analysis

Transcripts will be read several times to develop an interpretation of each article and sexual health training demands, as well as their perceptions of developing strategies to improve sexual health education strategies

## **3. Results**

A crucial tactic to address and reduce the number of teenage pregnancies in Lambayeque has been the introduction of sex education programs. This analysis assesses the effectiveness of these programs using recent data and a multidisciplinary approach to identify barriers and opportunities.

### Students' knowledge and attitudes

The surveys revealed that, after the implementation of sex education programs, 85% of students reported a significant increase in their knowledge about contraceptive methods and the prevention of sexually transmitted diseases. This increase in knowledge is crucial, as a study by Castro et al. (2018) shows that effective educational programs can significantly improve young people's understanding and competencies to avoid risky sexual behaviors.

In addition, 70% of respondents had more favorable views of contraceptive use, compared to 50% before the program was implemented. This shift in attitudes is consistent with research by Widman et al. (2018), which found that comprehensive sexuality education can change attitudes toward contraception and promote safer sexual behaviors.

However, a recent study found that only 60% of schools in Lambayeque implement some type of program, and of these, only 25% offer comprehensive sexuality education that includes topics such as contraceptive use and reproductive health (Mendoza et al., 2022). The differences observed in the knowledge and attitudes of students after the implementation of the programs in Lambayeque can be explained by several reasons related to the coverage, quality, and training of these programs.

The lack of sex education programs in 40% of schools in Lambayeque means that a significant portion of students do not receive formal education on contraception and STI prevention. This lack of coverage limits the overall reach and effectiveness of educational efforts in the region, preventing a significant portion of students from obtaining the data they need to decide on their sexual and reproductive well-being.

Even among schools that implement sex education programs, only 25% offer comprehensive sex education. This means that many programs may be incomplete or lack critical information about contraceptives and reproductive health, negatively impacting students' knowledge and attitudes. The lack of a comprehensive curriculum can lead to superficial understanding and less favorable attitudes.

The training and resources provided to educators are crucial to the effectiveness of programs. Without proper training, educators may not be prepared to address all the necessary topics, which can limit the impact of sex education. According to Marques, Reis, & Matos (2020), continuous training and adequate resources are essential for educators to deliver quality sex education.

The support of educational institutions and the cultural acceptance of sex education programs play an important role in their implementation and sustainability. Cultural barriers and taboos can hinder the full implementation of programs, reducing their effectiveness. Glick et al. (2020) highlight that institutional support is essential to overcome cultural resistance and ensure in an effective and sustained manner.

### Program Implementation and Effectiveness

They report that 60% of educators indicated that adequate training and resources provided were crucial for the effective implementation of the program. The literature suggests that the training of educators is essential for the effectiveness of sex education (Marques, Reis, & Matos, 2020).

75% of the interviewees highlighted the importance of institutional support for the sustainability of the programs. According to research by Denford et al. (2020), the support of educational institutions is essential for the implementation and sustainability of effective programs.

However, some studies disagree on the centrality of training. For example, Kohler, Manhart, and Lafferty (2018) argue that although training is important, factors such as socioeconomic context and community support can have an equal or greater impact on effectiveness. In addition, Kirby (2020) suggests that the effectiveness of programs also depends on the integration of interactive and participatory pedagogical methods.

75% of the articles highlighted the importance of institutional support for the sustainability of the programs. Research by Denford et al. (2020) supports this claim, indicating that the support of educational institutions is critical for the implementation and sustainability of effective sex education programs.

On the other hand, some research presents alternative points of view. For example, Chin et al. (2012) suggest that community support and parental involvement can be equally crucial to the success of sexuality education programs, especially in contexts where EIs face significant resource constraints.

### Reducing the Adolescent Pregnancy Rate

The adolescent pregnancy rate was 18%, according to MINSA after Implementation, the rate decreased to 12%, which represents a 33% reduction in the incidence of adolescent pregnancies. This result is in line with other research showing how comprehensive sexuality education can reduce the rate of teen pregnancy. (Sieving et al., 2019).

#### Barriers and opportunities

40% of educators mentioned in studies that conservative attitudes and cultural taboos remain an obstacle to the full implementation of sexuality education programs. According to research by Glick et al. (2020), cultural barriers can limit effectiveness.

30% of schools lack the necessary resources to offer comprehensive sex education programmes. The insufficiency of material and economic resources is a barrier commonly cited in the literature on sex education (Christensen et al., 2020).

Within the opportunities, promoting collaboration between educators, health professionals, and parents can strengthen the effectiveness of the programs. The integration of a multidisciplinary approach has been shown to be effective in improving sex education and reproductive health (Lantos et al., 2019).

Implementing digital platforms and mobile apps for sex education can increase the reach and accessibility of information. According to current studies, youth participation and the availability of information in sexuality education can be improved through the use of technology (Stanhope et al., 2021).

#### 4. Conclusions

The introduction of comprehensive sex education programs in Lambayeque has been shown to increase students' knowledge about STD prevention and contraceptive techniques. Eighty-five percent of students reported a significant increase in their knowledge, and 70 percent showed more proactive approaches to contraception. These findings are consistent with previous studies showing that comprehensive sexuality education can improve both knowledge and attitudes towards contraception and prevention.

Adequate training of educators and institutional support are critical factors for the effectiveness of programs, 60% of educators highlighted the importance of training and resources provided, while 75% of interviewees stressed the need for institutional support for the sustainability of programs. The literature supports these conclusions, indicating that the continuous training of educators and the support of educational institutions are essential for the successful and sustainable implementation of sex education.

Despite the advances, there are significant barriers that are observed as limitations in the implementation of sex education programs in Lambayeque. Only 60% of schools implement some type of sex education program, and of these, only 25% offer comprehensive sex education. Cultural barriers, taboos, and lack of resources are major obstacles that need to be addressed. However, opportunities such as multidisciplinary integration and the use of technology can improve the coverage and effectiveness of programs, expanding their reach and accessibility.

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