

Sexual and Reproductive Health with an intercultural approach in adolescents. San Juan Bosco Educational Unit

Mery Rocío Rea Guamán, Sandy Guadalupe Fierro Vasco, Janine Maribel Taco Vega, Silvana Ximena López Paredes

Universidad Estatal de Bolívar
Email: mrea@ueb.edu.ec

Abstract

This study addresses sexual and reproductive health in adolescents at San Juan Bosco School with an intercultural approach, due to the high rate of teenage pregnancies and the lack of knowledge about contraceptive methods and sexually transmitted infections (STIs). Objective: To improve knowledge and modify attitudes and practices regarding sexual and reproductive health (SRH) in adolescents, considering their specific cultural contexts. Methodology: The study utilized a quasi-experimental design with pre and post tests, surveying 78 high school students, mostly indigenous. Interactive educational talks were given using didactic and multimedia materials. Data were analyzed using SPSS software to compare responses before and after the talks. Results: Knowledge about contraceptive methods, SRH, and STIs improved significantly. Before the intervention, 27% of the students had no knowledge about contraceptive methods, which reduced to 0% after the intervention. Similarly, knowledge about menarche increased from 10% to 39%. However, some negative attitudes, such as the perception that masturbation is a sin, increased from 26% to 42%. Conclusion: Although the intervention significantly improved knowledge about SRH, attitudes towards certain sexual topics still reflect deeply rooted cultural and religious beliefs. It is necessary to implement more inclusive and culturally sensitive educational programs to address these barriers and promote healthy sexual practices.

Keywords: Sexual and Reproductive Health (SRH), Teenage Pregnancy, Intercultural Education, Contraceptive Methods, Sexually Transmitted Infections (STIs).

1. Introduction

Currently, one of the main problems in adolescence is the increase in adolescents with consequences due to inadequate sexual health. Global estimates on pregnancy show that about 21 MM of children under 19 years of age are pregnant annually. These pregnancies are linked to several risk factors, associated with socioeconomic status, decision-making without a knowledge base, poor or non-existent use of contraceptives, and in general, knowledge and behaviors related to sexual and reproductive health (SRH). (OMS, 2022)(Ahuanlla et al., 2023)

The WHO directed its actions for the prevention of adolescent pregnancy to the promotion of sex education, family planning and accessibility to contraceptive methods in a transversal way in society in a free and quality way. Likewise, adolescents are asked to learn more about SRH. (OMS, 2019).

The situation in Latin America and the Caribbean is equally alarming. The fertility rate in the 15-19 age group is about 60.7 per 100,000 live births. In addition, according to statistics, about 2% of the female population of reproductive age indicated that they had a first child before the age of 15. These data show a problem that affects the entire region, beyond national borders.(2020)

In Ecuador, the situation is similar, it was identified that of 141 adolescents become mothers every day in the country. The amount indicates the importance of the problem and highlights the importance of effective interventions. The Statistical Registry of Live Births and Fetal Deaths reports that in the province of Bolívar, adolescents aged 10 to 14 years have a specific live birth rate of 1.53 per 1,000 women, while adolescent mothers aged 15 to 19 years have a specific rate of 46.93 per 1,000 women.(Ministerio de Salud Pública, 2021)(2021)

To address this problem, it is essential to recognize the need for a comprehensive education during this period of life, appropriate to each context and particular reality of this population. According to Guerrón et al, the lack of knowledge about SRH in adolescence can have significant negative consequences, affecting not only the physical and emotional health of adolescents, but also their social and economic environment. Lack of adequate information about contraception and family planning increases the risk of unintended pregnancies, which in turn leads to obstetric complications, unsafe abortions, and an increased risk of sexually transmitted infections. In addition, teenage pregnancy can result in school dropout, limiting future educational and employment opportunities, and generating a cycle of poverty and social exclusion. This impact extends to the family and the community, increasing the economic and social burden.(2022)(Figueroa et al., 2021)(Langer, 2022)

In this sense, the Intersectoral Policy for the Prevention of Pregnancy in Girls and Adolescents (2018-2015), about 79.5% of women aged 12 to 14 in Ecuador know contraceptive methods. However, 67.7% of women under 19 years of age do not use contraceptive or STD prevention methods. Ignorance and lack of access are the main reasons (Ministerio de Salud Pública, 2018)

Various studies have examined the problem of sexual reproductive health, such as the one carried out in Peru by Gutiérrez et al. (2021), where it was found that college students did not know much about contraceptive methods, which exposed them to risks of contracting sexually transmitted diseases or having unwanted pregnancies due to lack of adequate information.

In this line of research Vázquez et al investigated the degree of adolescent knowledge and attitudes about sexual and reproductive health, highlighting that this knowledge is crucial for adolescent well-being because ignoring it can have serious consequences. Research in Cuenca on adolescent knowledge, perceptions, and attitudes about SRH, contraception, and sexually transmitted diseases (STDs) has been limited, focusing mainly on adolescent pregnancy rate, initiation of active sexual life, and contraceptive use. (2023)

Lack of adequate and up-to-date information can lead to unplanned pregnancies and the spread of STDs, affecting young people's quality of life. To create effective educational programs that promote healthy sexuality and prevent associated risks, it is essential to understand the reality of adolescents, their families, and their communities.

In this sense, Ramos-Bolaños, et al, mention that contextualizing sexual and reproductive education (SRE) from an intercultural approach is crucial to address the specific needs and respect the traditions of indigenous adolescents. Indigenous communities have their own knowledge systems and ancestral practices that must be integrated into ESR programs to ensure their effectiveness and acceptance. This approach recognizes cultural diversity and promotes the active participation of communities in decision-making related to their health. In doing so, gaps between traditional and Western knowledge are bridged, respect for cultural rights is fostered, and adolescents receive appropriate and relevant sexuality education, thereby reducing the risks associated with sexual and reproductive health and improving their overall well-being.(2024)

Likewise, at the local level in Guaranda, Mas, et al., mention that sexual and reproductive education (SRE) in educational units faces several critical challenges due to the fact that adolescents have an average knowledge of contraceptive methods and sexually transmitted infections, with a strong dependence on the family as the main source of information. In addition, there is a lack of systematicity and continuity in sex education within the education system, influenced by the absence of clear and coherent public policies, as well as by the lack of training and training of teachers. Highlighting the cultural and religious resistance that limits the effective implementation of ESR programs. This context translates into high rates of teenage pregnancy and STDs, as well as the perpetuation of myths and prejudices about sexuality. (2023)

Caiza and Morocho investigated the experiences of high school students in the face of SRH. It was discovered that students learned about this topic mainly from their social group, partners and social networks, but the sources of information were not reliable. In addition, there was not enough parent-child dialogue on these issues, indicating that adolescents need more communication and education in family planning. (2019)

In addition, at the local level at the Alfredo Noboa Montenegro Hospital, located in the province of Bolívar, it was found that the use of contraceptive methods and the lack of information about sexuality are the main causes of teenage pregnancies. This is in line with the results of international research that highlights the relevance of sex education and access to medical services to prevent unwanted pregnancies.(Argüello, 2019)

Adolescence is a crucial stage for the acquisition of knowledge and skills that affect health and well-being throughout life, as mentioned above. At Colegio San Juan Bosco, located in the Guaranda canton of Bolívar province, the cultural diversity of the students, who were mainly of indigenous origin, presented particular challenges for sexual and reproductive health education. To ensure the effectiveness of educational programs and respect for community traditions and beliefs, it was critical to address these challenges in a culturally sensitive manner.

Several key factors determined the relevance of the study. First, most of the students lacked basic knowledge about contraceptives and SRH care. This lack of knowledge increased the risk of

STDs and unwanted pregnancies. In addition, religion and culture had a significant impact on perceptions and practices related to sexual health. The adoption of safe and responsible sex practices was hindered by significant cultural barriers.

To overcome these difficulties, culturally adapted educational programs are needed. The lack of accurate information and the lack of communication about sexuality in the home are important problems that need to be addressed clearly. In this sense, the research development focused on determining the knowledge, attitudes and practices about SRH with an intercultural approach in adolescents of the San Juan Bosco School.

After the implementation of the instruments, the objective was to improve students' knowledge about contraceptives, sexually transmitted diseases, and sexual and reproductive rights. to establish a framework for the development of interventions that foster positive attitudes toward contraceptive use and sexual health research. to promote responsible and safe practices in sexual and reproductive health.

To achieve this, the study used a quantitative technique to gain a comprehensive understanding of students' knowledge, perspectives, and practices. To evaluate the impact of the intercultural educational program, a pre- and post-test design was used. Data collection instruments included structured surveys applied before and after the talks to assess students' knowledge, attitudes, and practices on sexual and reproductive health. A representative sample of adolescent students from St. John Bosco College was chosen for the study, which included students from different educational levels and cultural backgrounds.

2. Materials and Methods

The study adopted a quantitative approach of a quasi-experimental descriptive type, of a cross-sectional nature. Using a pre- and post-test design to evaluate the impact of educational talks on students of an Intercultural School located in the canton of Guaranda, in the province of Bolívar, Ecuador. This approach made it possible to measure changes in knowledge about SRH before and after the educational intervention.

The target population of the study consisted of students of 8th, 9th, 10th, First, Second and Third of Unified General Baccalaureate (BGU) of the San Juan Bosco Educational Unit: A representative sample of 78 students was selected, 56% male and 44% female, to whom the educational talks were given, selected by convenience sampling. This population was mainly composed of students who self-identified as indigenous representing 69% of the population, followed by the mestizo ethnic group representing 23%.

To collect information, surveys were applied before and after the application of the educational intervention aimed at students to measure changes in knowledge and attitudes about the prevention of pregnancy and abortion. These surveys included questions with Likert scales to assess perceptions before and after the talk. The interactive talks were held with the support of teaching materials to facilitate understanding of topics such as the prevention of teenage

pregnancy and abortion. During the talks, multimedia presentations and anatomical mock-ups were used to illustrate the key concepts.

For data analysis, SPSS version 25 software (IBM)® was used. Descriptive analyses were performed to compare pre- and post-intervention responses. The study was carried out in different phases. First, educational talks were held with didactic materials. Subsequently, ex-post surveys were applied to measure changes in knowledge and attitudes. Finally, interviews were conducted to gain a deeper understanding of the experiences and perceptions of students and teachers. The talks were developed in scheduled sessions, ensuring the active participation of the students through interactive questions and group discussions. Ex-post surveys were distributed and collected immediately after the talks. Interviews were conducted in a private and confidential setting to ensure honest and detailed responses from participants.

The study sought to know several fundamental aspects. First, students' prior knowledge of contraceptive methods, sexual and reproductive health, and sexually transmitted diseases was assessed. Second, attitudes towards the use of contraceptive methods and other practices related to sexual health were investigated. In addition, the impact of cultural and religious factors on adolescents' perception and behavior regarding sexual health was examined. Finally, data were collected on the influence of education and information sources on the formation of these knowledge and attitudes. All this in order to identify the areas where improvements in sexual and reproductive education are needed, adapted to the cultural particularities of the population studied.

3. Results

Knowledge, attitudes and practices on the topic of sexual and reproductive health

Board 1 Dimension students' knowledge of sexual and reproductive health

		Before	After
Birth Control	Nothing	27%	0%
	Very little	21%	9%
	Something	29%	39%
	Pretty much	10%	34%
	Much	13%	18%
Definition of sexual and reproductive health	Nothing	27%	6%
	Very little	27%	3%
	Something	32%	29%
	Pretty much	6%	36%
	much	6%	26%
Sexually transmitted diseases	Nothing	18%	4%
	Very little	26%	6%
	Something	34%	29%
	Pretty much	8%	34%
	Much	14%	27%

Note: The information analyzed is based on the data collected before and after the application of the educational intervention.

Prior to the educational intervention, students' knowledge of contraceptive methods was remarkably low. 27% of the students indicated that they had no knowledge ("Nothing"), and 21% indicated that they had very little knowledge ("Very little"). Only 10% and 13% said they had considerable knowledge ("Quite") and very high ("A lot"), respectively. However, after the educational intervention, a significant improvement was observed. No students were placed in the "Nothing" category, while those with very little knowledge decreased to 9%. Students who reported moderate knowledge ("Somewhat") increased from 29% to 39%, and those with considerable and very high knowledge increased to 34% and 18%, respectively. This shows that the educational intervention was effective in improving knowledge about contraceptive methods.

Regarding the definition of sexual and reproductive health, before the educational intervention, 27% of the students indicated that they had no knowledge ("Nothing"), and another 27% said they had very little knowledge. Most were at low levels of knowledge, with only 6% indicating considerable or very high knowledge. After the intervention, knowledge showed considerable improvement. The percentage of students with no knowledge decreased to 6%, and those with very little knowledge to 3%. Students with moderate knowledge remained relatively stable at 29%, but those who indicated considerable and very high knowledge increased to 36% and 26%, respectively. These results reflect a positive impact of the educational intervention on the understanding of the fundamental concepts of sexual and reproductive health.

Knowledge about sexually transmitted diseases (STDs) also improved significantly after the educational intervention. Initially, 18% of students had no knowledge of STDs at all, and 26% had very little knowledge. Students with considerable and very high knowledge accounted for only 8% and 14%, respectively. After the intervention, students with no knowledge dropped to 4%, and those with very little knowledge dropped to 6%. The percentage of students with moderate knowledge remained at 29%, while those who indicated having considerable and very high knowledge increased to 34% and 27%, respectively. This indicates a significant improvement in awareness and understanding of STDs among students.

Board 2 Dimension Adolescent attitudes about sexual and reproductive health

		Before	After
It is important to use a condom during sex	Totally agree	25%	13%
	Disagree	4%	6%
	Undecided	6%	4%
	I agree	21%	38%
	Totally agree	44%	39%
Sexual relations should only occur when there is love involved	Totally agree	18%	14%
	Disagree	6%	9%
	Undecided	17%	12%
	I agree	27%	26%
	Totally agree	32%	39%
You believe that there are only men and women in society	Totally agree	14%	27%
	Disagree	18%	12%
	Undecided	23%	26%
	I agree	21%	17%
	Totally agree	23%	18%
You would dare to get birth control on your own (ask someone, buy it, etc.)	Totally agree	18%	13%
	Disagree	13%	13%
	Undecided	23%	14%

It's embarrassing to talk about our body, its functions, and the changes it undergoes as it grows	I agree	21%	22%
	Totally agree	25%	38%
	Totally agree	29%	25%
	Disagree	8%	5%
	Undecided	21%	23%
Women are destined to be mothers	I agree	25%	26%
	Totally agree	18%	21%
	Totally agree	2%	26%
	Disagree	6%	12%
	Undecided	10%	14%
Attitude dimension: Could hug a person who has HIV/AIDS	I agree	17%	13%
	Totally agree	39%	35%
	Totally agree	47%	19%
	Disagree	10%	5%
	Undecided	19%	13%
	I agree	6%	23%
	Totally agree	17%	39%

Note: The information analyzed is based on the data collected before and after the application of the educational intervention

Before the educational intervention, 25% of students strongly agreed that it is important to use a condom during sex, while after the intervention this percentage decreased to 13%. However, students who agreed increased from 21% to 38%. This suggests that, although total conviction decreased, the intervention was successful in increasing general agreement on the importance of condom use, which is a positive step towards the acceptance of safe sex practices.

The perception that sexual relations should only take place when there is love involved showed varied changes. Before the intervention, 32% of students strongly agreed with this statement, and then it increased to 39%. However, those who agreed declined slightly from 27% to 26%, while those who were undecided and disagreed maintained similar figures. This indicates a slight trend towards valuing love as the basis for sexual relations, although there were no significant changes in disagreements and indecisions.

The belief that there are only men and women in society showed an increase in total conformity from 14% to 27%, which could reflect a reaffirmation of traditional views of gender. Despite this, disagreements decreased from 18% to 12%, and undecided remained relatively stable. This change suggests a reaffirmation of binary gender visions after the educational intervention, which could be an area of concern regarding the inclusion of gender diversities.

Students' willingness to obtain contraceptives on their own showed significant improvement. Those who strongly agree increased from 25% to 38%, while those who are undecided decreased from 23% to 14%. Disagreements remained unchanged, suggesting greater safety and willingness of adolescents to take preventive measures on their own after the intervention.

The perception that it is shameful to talk about the body and its functions underwent slight changes. Students who strongly agree decreased from 29% to 25%, while those who agree increased slightly from 25% to 26%. Undecided voters rose from 21% to 23%, and disagreements decreased slightly. These changes indicate a slight decrease in shame associated

with talking about the body, although feelings of shame still persist in a considerable portion of students.

The attitude that women are destined to be mothers showed a significant increase in total agreement from 2% to 26%. However, disagreements also increased from 6% to 12%, and undecided and agree had slight variations. This reflects a polarization of opinions after the educational intervention, where some students reaffirmed this traditional belief while others questioned it more.

Willingness to hug a person with HIV/AIDS showed a decrease in total agreement from 47% to 19%. However, those who agree increased significantly from 6% to 23%, and those who strongly agree also increased from 17% to 39%. This suggests a shift in the way acceptance and support are expressed, with fewer students flatly stating their willingness but more showing general agreement.

Knowledge, attitudes and practices of adolescents in relation to information technologies

Board 3 Dimension of knowledge, attitudes and practices of adolescents in the face of ICTs

		Before	After	
Knowledge dimension	Learn about the risks that adolescents and young people run when using technology, the internet and social networks	Nothing	18%	6%
		Very little	10%	8%
		Something	26%	14%
		Pretty much	17%	17%
		Much	29%	39%
Attitudes dimension	He believes that using technological methods he understood the issue of sexuality	Totally agree	27%	36%
		Disagree	13%	12%
		Undecided	16%	10%
		I agree	30%	19%
		Totally agree	14%	21%
Practical dimension	A person who is going to have a sexual relationship should seek information and advice about contraception.	Yes	71%	78%
		Maybe	21%	5%
		No	8%	17%

Note: The information analyzed is based on the data collected before and after the application of the educational intervention.

In relation to the knowledge of the risks that adolescents run when using technology, the internet and social networks, a significant improvement is observed after the educational intervention. Before the intervention, 18% of the students indicated that they had no knowledge ("Nothing"), while this percentage decreased to 6% after the intervention. In addition, the percentage of students with very little knowledge fell from 10% to 8%. However, those who indicated moderate knowledge ("Somewhat") decreased from 26% to 14%, which could indicate that some students who initially fell into this category went on to have more advanced knowledge. Students with considerable knowledge ("Quite a lot") remained stable at 17%, but those with very high knowledge ("A lot") increased from 29% to 39%. These results suggest that the educational intervention managed to significantly increase knowledge about the risks associated with the use of ICTs among adolescents.

Attitudes towards the use of technological methods to understand sexuality were also observed. Before the intervention, 27% of the students strongly agreed with this statement, while after the

intervention this percentage increased to 36%. Disagreements decreased slightly from 13% to 12%, and undecided ones fell from 16% to 10%. However, students who agreed decreased from 30% to 19%, and those who strongly agreed increased from 14% to 21%. These changes indicate greater acceptance and confidence in the use of technologies for sex education among students after the educational intervention.

In the dimension of practices, specifically in the action of seeking information and advice on contraception before having a sexual relationship, an increase in the responsibility of students is observed. Before the intervention, 71% of students felt that a person should seek information and advice about contraception, while this percentage increased to 78% after the intervention. Those who answered "Maybe" decreased significantly from 21% to 5%, while those who answered "No" increased from 8% to 17%. These results reflect an increase in awareness of the importance of properly informing oneself about contraception before having sex, although the increase in the negative response suggests that there is still a minority that might disagree with this practice.

Knowledge and attitudes towards traditions, myths and culture in sexual and reproductive health

Board 4 Knowledge dimension in the face of traditions, myths and culture in sexual and reproductive health

		Before	After
Do you know the meaning of taboo?	Nothing	58%	5%
	Very little	16%	9%
	Something	16%	39%
	Pretty much	5%	19%
	Much	5%	27%
Do you know the myths that exist on the subject of sexuality	Nothing	40%	6%
	Very little	21%	13%
	Something	23%	25%
	Pretty much	8%	36%
	Much	8%	19%
What is Menarche	Nothing	52%	10%
	Very little	17%	13%
	Something	14%	14%
	Pretty much	6%	23%
	Much	10%	39%

Note: The information analyzed is based on the data collected before and after the application of the educational intervention.

Before the educational intervention, 58% of the students had no knowledge about the meaning of taboo ("Nothing"). This percentage decreased markedly to 5% after the intervention. Students with very little knowledge decreased from 16% to 9%, while those with moderate knowledge ("Somewhat") increased significantly from 16% to 39%. Likewise, the percentage of students with considerable knowledge ("A lot") and very high ("A lot") increased from 5% to 19% and from 5% to 27%, respectively. These results indicate a significant improvement in students' understanding of the concept of taboo, suggesting that the educational intervention was highly effective in this aspect.

Knowledge about existing myths about sexuality also showed significant improvement. Initially, 40% of the students indicated that they had no knowledge about these myths ("Nothing"), but this figure dropped to 6% after the intervention. Those with very little knowledge decreased from 21% to 13%. Students with moderate knowledge ("Somewhat") increased from 23% to 25%, while those with considerable ("Quite") and very high ("Very much") knowledge increased from 8% to 36% and from 8% to 19%, respectively. This reflects a greater understanding of students about myths related to sexuality after the educational intervention.

Regarding knowledge about menarche, before the educational intervention, 52% of the students had no knowledge at all ("Nothing"), and this percentage was significantly reduced to 10% after the intervention. Students with very little knowledge decreased from 17% to 13%, while those with moderate knowledge ("Somewhat") remained stable at 14%. However, students with considerable knowledge ("Quite a lot") and very high ("A lot") increased from 6% to 23% and from 10% to 39%, respectively. These results suggest that the educational intervention was very effective in improving knowledge about menarche among students.

Board 5 Attitudes to traditions, myths and culture dimension in sexual and reproductive health

Attitude dimension		Before	After
You believe that masturbating is forbidden or a sin	Totally agree	26%	42%
	Disagree	27%	23%
	Undecided	26%	19%
	I agree	13%	10%
	Totally agree	8%	5%
Condoms should only be used by men	Totally agree	25%	39%
	Disagree	22%	27%
	Undecided	17%	10%
	I agree	10%	4%
	Totally agree	26%	19%
Do you think that contraceptive methods can leave you sterile	Totally agree	40%	47%
	Disagree	14%	26%
	Undecided	29%	19%
	I agree	9%	4%
	Totally agree	8%	3%

Note: The information analyzed is based on the data collected before and after the application of the educational intervention.

Prior to the educational intervention, 26% of students strongly agreed that masturbation is forbidden or a sin. This percentage increased to 42% after the intervention, indicating a reinforcement of this belief. On the other hand, students who disagreed decreased from 27% to 23%, and those who were undecided went from 26% to 19%. Those who agreed also declined from 13% to 10%, and those who strongly disagreed decreased from 8% to 5%. These results suggest that, despite the educational intervention, negative beliefs about masturbation persist and are reinforced among some students.

As for the belief that condoms should only be used by men, the percentage of students who strongly agree or from 25% to 39%. Those who disagree increased from 22% to 27%, while those who are undecided decreased from 17% to 10%. Students in agreement also decreased from 10% to 4%, and those who strongly disagree decreased from 26% to 19%. These changes

indicate that, although there is an increase in the strong belief that only men should use condoms, there is also an increase in opposition to this idea, reflecting a polarization of attitudes.

4. Discussion

The results of the educational intervention on sexual and reproductive health in adolescents show significant progress and areas that require greater attention. The improvement in students' knowledge of key concepts, such as the meaning of taboo, sexual myths, and menarche, is remarkable. Before the intervention, 58% of the students had no knowledge of the meaning of taboo, a figure that was reduced to 5% after the intervention. In many Latin American countries such as Bolivia, sex is a subject surrounded by many taboos among adolescents and their families, which fragments the information that reaches this age group, as demonstrated by the study where 70% of 384 adolescents between 10 and 18 years old who were surveyed indicated that they are not well informed about sexuality. because it is a difficult subject to deal with by their parents, because of shame and because it is taboo(Avilés et al., 2023)

Similarly, knowledge about sexual myths and menarche also improved considerably, indicating that the intervention was effective in increasing understanding of these essential issues. This improvement in knowledge is crucial to demystify misconceptions and empower adolescents to make informed and safe decisions, thereby reducing the risks associated with misinformation. In relation to this result, the work published in Colombia highlights that educating adolescents about aspects related to sexual and reproductive health, with the different stages of development, about the initiation of sexual relations, among other topics, demolishes many myths and prejudices, contributing to the practice of their sexuality in a healthy and safe way.(Martínez y Romero, 2024)

However, the results in the dimension of attitudes present a more complex picture. The educational intervention had mixed impacts, and in some cases, reinforced negative beliefs. For example, the belief that masturbation is forbidden or a sin increased from 26% to 42%, suggesting that negative attitudes towards masturbation, possibly influenced by deep-seated cultural and religious factors, persist and, in some cases, are reinforced. In addition, the belief that condoms should only be used by men increased from 25% to 39%, reflecting the persistence of traditional gender roles that limit shared responsibility in protecting against sexually transmitted diseases and unintended pregnancies. In reference to these results, the study carried out in Spain where 32 students between 15 and 17 years old participated, have indicated based on the responses of the survey applied before and after an educational intervention, that students had increased the frequency of masturbation after having completed the educational workshop, also a significant increase in the use of condoms was determined. Concluding that the erotophobic attitudes of some families due to their religious and cultural beliefs, repress the sexual manifestations of adolescents by considering that masturbation is bad, which develops feelings of guilt and anxiety, also affects boys to use condoms less and stimulates adolescents to initiate sexual relations at an earlier age(Ruiz et al., 2020)

The polarization of opinions on this issue underscores the need for a more inclusive education that challenges these stereotypes. Regarding the belief that contraceptive methods can cause sterility, although there was an increase in disagreement with this belief (from 14% to 26%), the majority of students continue to have concerns about it, signaling a persistent distrust of contraceptive methods that needs to be addressed with clear and accessible scientific information. In reference to the use of contraceptive methods such as condoms, of 85 adolescents between the ages of 15 and 18 who were surveyed by in Cuba, 24.7% indicated that they have used condoms when starting a relationship, but then they decrease their use when they have time with the same partner or become pregnant and others indicated that they do not use them because they have erroneous beliefs that they do not have the same sensations and do not enjoy the same (López et al., 2021)

These results imply that educational interventions need to be more comprehensive and sensitive to students' cultural contexts. It is crucial to not only provide accurate information, but also to address cultural beliefs and attitudes that may hinder the acceptance of healthy practices. Interventions should be designed with cultural and religious influences in mind, promoting gender equality and fostering shared responsibility in sexual health. In this regard, in the research carried out in Mexico by the United States, they concluded that educational intervention with sexual and reproductive education programs aimed at adolescents, where issues related to the use of contraceptive methods for a safe sexual act, sexual problems, behaviors and diseases are addressed, has positive effects on adolescents, by providing correct knowledge and not based on popular myths and beliefs that are mostly erroneous. because they are based on religious beliefs and cultural patterns (Jacinto y Ruiz, 2022)

In addition, it is essential to carry out periodic evaluations to adjust educational strategies and ensure that the information provided is clear and based on scientific evidence. In addition, although the educational intervention has been effective in improving students' knowledge about sexual and reproductive health, changes in attitudes have been mixed. This highlights the need for more comprehensive and culturally sensitive educational approaches to bring about positive change in adolescent attitudes towards sexual and reproductive health, fostering a more informed generation and better sexual and reproductive health.

5. Conclusion

The educational intervention resulted in a marked improvement in adolescents' knowledge of various aspects of sexual and reproductive health. The results showed a considerable decrease in the lack of knowledge on topics such as the meaning of taboo, sexual myths and menarche, and a significant increase in moderate, considerable and very high knowledge. This indicates that the intervention was effective in providing crucial information that can empower adolescents to make informed decisions about their sexual health.

Despite advances in knowledge, changes in adolescent attitudes were mixed. In some cases, the intervention reinforced pre-existing negative beliefs. For example, the perception of masturbation as forbidden or sinful and the belief that condoms should only be used by men

increased after the intervention. These results underscore the persistence of traditional and negative attitudes that may be deeply rooted in cultural and religious factors, indicating that sexuality education needs to be more comprehensive and tailored to specific cultural contexts in order to effectively challenge and change these beliefs.

The findings suggest that to bring about positive and lasting change in adolescent attitudes and practices toward sexual and reproductive health, educational interventions need to be ongoing, comprehensive, and culturally sensitive. It is critical to address not only misinformation, but also cultural beliefs and attitudes that can limit the acceptance of healthy practices. Engaging community and religious leaders, promoting gender equality, and ensuring that information is clear and based on scientific evidence are essential strategies to improve the effectiveness of sexuality education and foster a more inclusive and respectful learning environment.

WORKS CITED

- Ahuanlla, M., Unocc, S., Cornejo, E., Astudillo, R., Llallico, C., & Álvarez, M. (2023). Pregnancy in Adolescence: Risk Factors, Consequences and Prevention Activities. *Ciencia Latina*, 7(4). https://doi.org/https://doi.org/10.37811/cl_rcm.v7i4.7617
- Argüello, K. (2019). Incidence and risk factors of adolescent pregnancy in the Gynecology and Obstetrics Service of the Alfredo Noboa Montenegro Hospital. TFG, Universidad Regional Autónoma de los Andes. <https://dspace.uniandes.edu.ec/bitstream/123456789/10056/1/PIUAMED014-2019.pdf>
- Avilés, C., Untoja, D., & Vasque, J. (2023). Ethics of sexuality and prior knowledge in young university students. *Latin Science*, 7(4), 2717-2734. <https://www.cienzialatina.org/index.php/cienziala/article/view/7136/10783>
- Caiza, A., & Morocho, T. (2019). Experiences of high school students on family planning practices in the Angel Polibio Cháves Educational Unit, Guaranda canton. May-September 2019 period. State University of Bolívar. <https://www.dspace.ueb.edu.ec/handle/123456789/3158>
- Figueroa, D., Negrin, V., & Garcell, E. (2021). Risks and complications associated with adolescent pregnancy. *Revista de Ciencias Médicas de Pinar del Río*, 25(2). http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S1561-31942021000500025
- Guerrón, S., Sigcha, J., Morillo, J., & Narváez, M. (2022). Social impact of pregnancy in adolescents in the Tulcán Provincial Council Educational Unit. *Revista Conrado*, 18(S1), 171-179. <https://conrado.ucf.edu.cu/index.php/conrado/article/view/2331/2259>
- Gutiérrez, B., Llor, J., Fonseca, L., & Molina, A. (2021). Adolescents and education in the use of contraceptive methods. *Hygiea of Health*, 5(2). <https://revistas.itsup.edu.ec/index.php/Higia/article/download/577/1019/4249>
- National Institute of Statistics and Census. (2021). Vital Statistics. Statistical Registry of Births and Fetal Deaths. Annual Summary, National Institute of Statistics and Census. https://www.ecuadorencifras.gob.ec/documentos/web-inec/Poblacion_y_Demografia/Nacimientos_Defunciones/Nacidos_vivos_y_def_fetales_2021/Principales_resultados_ENV_EDF_2021%20.pdf
- Jacinto, R., & Ruiz, M. (2022). Effectiveness of sexual and reproductive education programs in adolescents. *Healthcare Horizon*, 21(1), 129-136. <https://www.scielo.org.mx/pdf/hs/v21n1/2007-7459-hs-21-01-129.pdf>
- Langer, A. (2022). Unwanted pregnancy: impact on health and society in Latin America and the Caribbean. *Rev. Panam Public Health*, 11(3). <https://www.scielosp.org/pdf/rpsp/v11n3/9402.pdf>
- López, D., Rodríguez, A., & Peña, M. (2021). Sexual behaviors at risk for sexually transmitted infections in adolescents. *Novedades en Población*, 16(3), 187-199. <http://scielo.sld.cu/pdf/rnp/v16n3/1817-4078-rnp-16-31-187.pdf>

- Martínez, A., & Romero, A. (2024). Decoloniality of Knowledge of Sexual and Reproductive Health of Adolescents and Young People. *Ciencia Latina*, 8(1), 8466-8482. <https://www.ciencialatina.org/index.php/cienciala/article/view/10175/14941>
- Mas, M., López, S., Camacho, M., & Galarza, B. (2023). Knowledge in sexual and reproductive health in students of the "Roberto Arregui" Guaranda Educational Unit. 2023. *Bionatura*. <https://doi.org/10.21931/RB/CSS.2023.08.04.2>
- Ministry of Public Health. (June 2018). Intersectoral policy for the prevention of pregnancy in girls and adolescents. Ecuador 2018-2025. Ecuador. <https://www.salud.gob.ec/wp-content/uploads/2018/07/POL%C3%8DTICA-INTERSECTORIAL-DE-PREVENCI%C3%93N-DEL-EMBARAZO-EN-NI%C3%91AS-Y-ADOLESCENTES-para-registro-oficial.pdf>
- Ministry of Public Health. (July 15, 2021). Government of the Meeting strengthens policies to prevent pregnancies in girls and adolescents. Featured news: <https://www.salud.gob.ec/gobierno-del-encuentro-fortalece-politicas-para-prevenir-embarazos-en-ninas-y-adolescentes/>
- WHO. (2019). WHO Recommendations on Adolescent Sexual and Reproductive Health and Rights. World Health Organization. <https://apps.who.int/iris/bitstream/handle/10665/312341/9789243514604-spa.pdf>
- WHO. (2019). WHO Recommendations on Adolescent Sexual and Reproductive Health and Rights. World Health Organization. <https://apps.who.int/iris/bitstream/handle/10665/312341/9789243514604-spa.pdf>
- WHO. (September 15, 2022). Pregnancy in adolescence. (O. M. Salud, Ed.) Fact sheets: <https://www.who.int/es/news-room/fact-sheets/detail/adolescent-pregnancy>
- PAHO. (2020). Adolescent pregnancy in Latin America and the Caribbean. UNFPA. Pan American Health Organization. https://iris.paho.org/bitstream/handle/10665.2/53134/OPSFPLHL200019_spa.pdf?sequence=1&isAllowed=y
- Ramos-Bolaños, E., Quiroz-Ortefa, J., & Perilla, F. (2024). Sexual and reproductive health: Inclusion and differential approach in indigenous children and adolescents. *Unidad Sanitaria*, 4(12), 41-54. <https://ojs-revunidadesanitaria.com.ar/index.php/RUSXXI/article/view/114/66>
- Ruiz, A., Jiménez, Ó., & Rando, M. (2020). Brief intervention program of sex education from the biographical model in adolescents of secondary education: a pilot study. *Spanish Journal of Guidance and Psychopedagogy*, 31(2), 38-55. <https://redined.educacion.gob.es/xmlui/bitstream/handle/11162/201304/Ruiz.pdf?sequence=1>
- Vázquez Rodas, E., Vázquez, A., Martínez, F., Barzallo, P., & Barzallo, P. (2023). Knowledge, Perceptions and Attitudes about Sexual and Reproductive Health, Contraception and Sexually Transmitted Diseases in Adolescents. *Athenaeum*, 25(1), 73-92. <https://www.colegiomedicosazuay.ec/ojs/index.php/ateneo/article/view/283>