

# Educational intervention on sexually transmitted infections in health technology students

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**Introduction:** The sexually transmitted infections-human immunodeficiency virus/acquired immunodeficiency syndrome constitute at this time, a serious health problem worldwide. Adolescence is considered a vulnerable risk group due to the typical risky sexual behaviour in this stage of life.

**Objective:** Increase knowledge about sexually transmitted infections-human immunodeficiency virus/acquired immunodeficiency syndrome

**Method:** Quasi-experimental study, in the teaching block: Luis Augusto Turcios Lima Polyclinic, San José de las Lajas during the period from January 2017 to December 2017. The methodology is established in the

guidance manual on prevention of sexually transmitted infections-human immunodeficiency virus/acquired immunodeficiency syndrome of the National Institute of Hygiene, Epidemiology and Microbiology that consists of affective, participative, animation and reflection techniques. The universe was represented by 49 students belonging to the careers of nursing (12<sup>th</sup> grade) and fight and eradication anti-vectorial.

**Results:** There is a significant increase in the levels of knowledge demonstrating the effectiveness of the intervention.

**Conclusions:** The methodology used is useful to increase knowledge about sexual transmission infections.

**Key Words:** Sexually transmitted infections; Human immunodeficiency virus; Acquired immunodeficiency syndrome; Sex education; Adolescence

## INTRODUCTION

During the development of the human being there is a period of development and growth, called adolescence, proceeds from Latin *adolescere* and means to grow. During it people establish their sense of individual identity, modifying the personal scheme, adaptation to more mature intellectual capacities, internalization of a personal value system and preparation for adult roles [1,2].

They are considered a vulnerable group because they are exposed to personal and social situations leaving them fragile and defenceless depending on different factors whether cultural, social and economic, which increase the susceptibility to develop disease or poor health status that exposes them to acquire a transmission infection. STI important and negative consequences are on sexual and reproductive health [3-5].

The impact of these diseases is seen more by knowing that the biomedical and socioeconomic costs related to STIs are enhanced when adolescents are involved, which ultimately constitutes the pillar of future generations [6,7].

The World Health Organization (WHO) has estimated that sexually transmitted infections-human immunodeficiency virus/acquired immunodeficiency syndrome (STI-HIV/AIDS) constitute, worldwide, the most important cause of disease among men of 15 years of age. At 49 years and the second (after maternal causes) among young women from developing countries [8-10].

STIs, which include HIV infection leading to AIDS, are recognized as a serious public health problem, but the range not only lies in STIs recognized since antiquity as syphilis or gonorrhoea, but extends to diseases of recent emergence and which also affects pregnancy and the product of conception due to its sexual transmission, such as the ZIKA [8-11].

In relation to HIV, around 38.6 million people in the world suffer from it; of these, 10.3 million are young people aged 15 to 24 years, 42% were newly infected. On the other hand, 50% of new infections, almost 6 thousand daily, happen in young people. If a gender analysis is done, it is seen that it infects an increasing number of women, and at significantly

younger ages than in the case of men [8-12]. In Cuba, about 50,000 cases of STIs are reported annually, with an upward trend in recent years. Among the most frequent are *gonorrhoea*, *syphilis*, *non-gonococcal urethritis*, *condyloma acuminatum*, *trichomoniasis*, *genital herpes simplex* and HIV/AIDS [6].

The prevention of STIs-HIV/AIDS, as well as the education of sexuality with a gender approach, constitute programs prioritized by the Cuban government, taking into account the behaviour of the HIV epidemic and the most frequent problems in the sexual life presented by the adolescents and young people and although results have been obtained, deficiencies persist related to lack of knowledge, myths, taboos, lack of perception of risk and stereotypes [11-16].

Taking this into account, an intervention study is carried out based on the application of an effective methodology tested in several educational centres, with the aim of increasing knowledge about STI-HIV/AIDS in adolescent students belonging to nursing careers. 12 degree and vector control eradication.

## MATERIALS AND METHODS

An intervention project was carried out, quasi-experimental before and after, in the teaching block: Luis Augusto Turcios Lima Polyclinic, San José de las Lajas, Mayabeque.

The universe studied consisted of adolescents between 15 and 19 years old, with an average age of 17.7 and a standard deviation of 1.4, with a predominance of females (42 females and 7 males) for 86 and 14% respectively. The study is carried out during the period from January 2017 to December 2017.

The methodological guidelines for the prevention of STIs-HIV/AIDS in adolescents and young people created by the National Institute of Hygiene, Epidemiology and Microbiology<sup>15</sup> (INHEM) (ISBN: 959-283-013-4), specifically by the school health department that has been used in other adolescent research and that offers affective, participative, animation and reflection techniques.

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In order to obtain information from students about STI-HIV/AIDS, pre and post educational intervention the knowledge variables were used of the questionnaire.

The methodology consists of three stages:

Application to the students of the initial questionnaire validated beforehand by experts in the field where data of knowledge towards STI/HIV/AIDS is explored and the educational intervention towards the students by professors (Dra. in Integral General Medicine, Dra. Specialist in Gynecology, Licentiate of psychology and promoter of health of the policlínico and a Licentiate in infirmary) and the final application of the same questionnaire to evaluate the changes

From this questionnaire were chosen the questions that evaluated knowledge and measure the following parameters for the subjects:

- Identification of entities as ITS
- STI transmission routes
- Clinical manifestations of STIs
- Consequences of contracting STIs
- About protection
- Proper use of the condom

According to the operationalization of the variables, appropriate and inadequate scales are given according to the correct or incorrect answers giving a total of minimum points: 65% with a total of 392 points. Consider the intervention as effective if it rises above 70% with minimum points 422.

The information was entered into a database created for this purpose through the EXCELS Program, where absolute numbers and percentages were calculated. The proportions were compared from a T test of proportions in which it is significant when P is less than 0.05.

**RESULTS**

It shows that the level of knowledge of the main STIs under study such as *Syphilis, Condylomas, HIV/AIDS, Gonorrhoea, Trichomonas, Candida Albicans and Herpes simplex*, initially is inadequate (67.4%), after the intervention performed, it increases significantly to 85.7% with identification of others such as hepatitis, *Zika* and *pediculosis* (Tables 1-6).\

**TABLE 1: According to knowledge of the different types of Sexually Transmitted Infections (STI)**

	Before the intervention		After the intervention	
	No	%	No	%
Adequate	16	32,6	42	85,7
Inadequate	33	67,4	7	14,3
Total	49	100	49	100

**TABLE 2: According to knowledge of the curable forms of Sexually Transmitted Infections (STI)**

	Before the intervention		After the intervention	
	No	%	No	%
Adequate	12	24	49	100
Inadequate	37	76	-	-

Total	49	100	49	100
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Regarding the curable forms, initially only 24% identify it, with ignorance especially of trichomoniasis and candidiasis, after the intervention the result is significant because it responds 100% adequately.

**TABLE 3: According to knowledge of the transmission routes of Sexually Transmitted Infections (STI)**

	Before the intervention		After the intervention	
	No	%	No	%
Adequate	13	26	49	100
Inadequate	36	74	-	-
Total	49	100	49	100

It was observed that at the beginning they knew the transmission routes of the STIs as the genital, anal, blood transfusions, and from the pregnant to the foetus, 26%, after the intervention, 100% responded adequately.

**TABLE 4: According to knowledge of the clinical manifestations of Sexually Transmitted Infections (STI)**

	Before the intervention		After the intervention	
	No	%	No	%
Adequate	15	30	49	100
Inadequate	34	70	-	-
Total	49	100	49	100

Before the intervention they knew 30% adequately the predominant clinical manifestations of the most frequent STIs and after the intervention the knowledge rises significantly (100%).

**TABLE 5: According to knowledge of the repercussions of Sexually Transmitted Infections (STI)**

	Before the intervention		After the intervention	
	No	%	No	%
Adequate	23	46	49	100
Inadequate	26	54	-	-
Total	49	100	49	100

After intervention, the consequences of having suffered sexually transmitted infections are adequately answered 46% and after the intervention the knowledge is maximum (100%).

**TABLE 6: According to condom or condom use**

	Before the intervention		After the intervention	
	No	%	No	%
Adequate	20	40,8	48	100
Inadequate	29	60	1	-
Total	49	100	49	100

Before the intervention a low percentage, 40.8% said that the condom should be placed at the time of erection, which is the correct form and after the intervention respond adequately (significantly) 98%.

## DISCUSSION

In the work of prevention of STI-HIV/AIDS, adolescence is considered as a vulnerable population, since it is at a stage in its life of discovery and activation of sexual intercourse. If you are not educated to assume a responsible sexuality, you can engage in sexual behaviours that damage your health, among which we can mention: start a sexual life early, have many sexual partners or have a sexual partner who has many sexual partners, have casual sex with unknown partners, do not use a condom or condom during sex, keep having sex despite having symptoms of a STIs and not informing sexual partners and that both need treatment [16,17].

The importance of educating adolescents from an early age is that they are prepared to lead a full, protected and knowledgeable sexual life about the risks they may face. This education must begin before puberty and be maintained during adolescence and youth [18,19].

The studied universe consisted mainly of adolescents of the female sex, not coinciding with studies of sociodemographic characteristics in Cuba where male adolescents (689 867, 51.50%) predominate very discreetly over female adolescents (649 468 48.49%). The high presence of the female sex in the health sector responds to the multidimensionality of the gender approach, considering it as a category that encompasses, in addition to the biological, the socio-psycho-economic-political-cultural category. However, it shows how Cuba maintains the fulfillment of the Millennium Goals of the United Nations, in terms of access to education and gender equality [20,21].

It is strategic to implement prevention programs for young people to assume healthy behaviours in HIV prevention; To achieve this, we must consider the social context in which they operate and the predominant value system in the groups of belonging, since no information, education and communication activity of interest can give the expected results, without an in-depth analysis of the specific characteristics of the recipients and their cultural relationship with the social environment [22-28].

Alba Cortes [22] in her educational intervention on sexuality issues, found that before applying the educational strategy there was ignorance of all the ways in which STIs are transmitted. Like Fadrugas in his project on sexuality and STI/HIV/AIDS with adolescent students of Plastic Arts and Pre-University of the Family Doctor's office, he found lower values in knowledge about these diseases, results similar to ours, to be lower than 60.0% [23].

Ortiz Sánchez N.L in the educational intervention of a school of technical professional education in adolescents achieves an increase in knowledge as well as the research carried out by the authors [24,25].

Regarding the knowledge about the condom, we find results similar to other studies where the adolescents surveyed never used the condom in their sexual relations, and there are also mythical criteria about this contraceptive method, after the intervention it is possible to increase adequately and in a high percentage the knowledge about the condom [22-25].

Students who enter the health faculties are part of the group of adolescents and young people who have received different influences from the environment, product of sociocultural development of the place of origin and need to appropriate the necessary tools to carry out educational actions, which translate into changes positive in the population regarding responsible health [29].

The advances in the cognitive sphere after the intervention are similar in these studies and show that educational interventions are one of the most useful preventive elements and should be used systematically in schools [30].

That is why it is recommended to increase the actions of promotion and education for children, adolescents and young people, with the aim of promoting values and attitudes according to a responsible sexuality, as well as to increase the educational interventions related to the topic for this sector of the population in different educational centers, and facilitate promotion in various spaces, such as concerts, shows, exhibitions, plays, dances and literary works [31-33].

## CONCLUSION

The methodology with the use of participative techniques manages to increase the knowledge about STI-HIV/AIDS in adolescents.

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