

Educational Intervention for the Prevention of Sexually Transmitted Infections in Ninth Grade Students

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Abstract

Introduction: sexually transmitted infections (STIs) represent serious health problems. Cuba does not escape this situation; educational work is required as a preventive method.

Objective: to assess the impact of educational intervention to prevent STIs through the variables: knowledge, beliefs, attitudes and perception of risk in the experimental group after educational intervention compared to the control group.

Method: study of quasi-experimental educational intervention with control group. The universe made up of 168 9th graders from the José José Oviedo Basic High School, San José de las Lajas, during the 2017 - 2018 academic year. The sample selected through the simple random method totaled 62 students. It is used to collect questionnaire information from the National Institute of Hygiene, Epidemiology and Microbiology, School Health Department. Statistical processing was performed by comparison of proportions and contrast test of Wilcoxon ranges. The intervention was carried out through 15 sessions.

Results: 80% of the students intervened raised knowledge about STIs, attitudes and perception of risk rose by 90 - 83% respectively, beliefs by 67%.

Subvariants: clinical manifestations, condom use and STI consequences (93, 93 and 100 % respectively), females demonstrated greater knowledge about STI transmission pathways (80%).

Conclusion: Knowledge of sTIs post-educational intervention is significantly elevated in the experimental group. The variables attitude, belief and perception of risk post intervention were positively modified and is effective.

Keywords: Adolescence; STI/HIV/AIDS; Educational Intervention

Introduction

Adolescence and youth are moments in life when behaviors of risk are most of the causes of injury, Bless you sequels and in times to death in both sexes, on the other hand, is In this stage where most of the practices that determine the best part of the practices are being defined The choices and lifestyles that underpin self-construction of health [1].

In adolescence, the risk of STIs is increased by constant changes in mates, the use of toxic substances and the low use of preventive methods, the lack of knowledge about the infection and the insufficient perception of the risk of contracting it, inadequate beliefs are often formed about the different objects and phenomena of reality and inappropriate attitudes are also exhibited with respect to these Phenomena. These are the main reasons for its increasing dissemination and difficult control Adolescence is defined by the World Health Organization as the period of life between the ages of 10 and 19. This stage is crucial because it produces profound physical, psychological and social changes that impact the rest of human life [2].

The characteristics of adolescence such as lack of impulse control, emotional and behavioral ambivalence, emotional and behavioral changes, early sexual maturation and interest in sex lead to the initiation of coital-type sex and to maintain risky behaviors that expose them to common victims of STIs [2].

Adolescents are more vulnerable to engaging in risky situations, being a stage characterized by the search for identity, of testing different things and where new experiences begin to be explored, thus exposing themselves to more dangerous situations, becoming more exposed to situations of risk to their health and those around them [2]. Most adolescents are in good health and have good physical and intellectual development, however, they face certain difficulties that few people probably consider. They tend not to value the danger, which leads them to suffer accidents, to consume alcohol, cigars or illicit drugs. Sometimes they have difficulties in school or communication problems with their parents within the home [2].

The definition of Sexually Transmitted Infection (STI), which replaced the classic designation of venereal diseases at the beginning of the 1970s, includes a number of sexually transmitted diseases of great interest to epidemiology, although there are authors who believe that in some of them it is not the mechanism of sexual lybee major transmission [3,4].

STIs are a social, economic, cultural and medical problem because they have characteristics that allow them to be differentiated from other communicable diseases by the sequelae they produce. They depend more than any other epidemic of human behavior, which is why health prevention and promotion in this area exceeds health frameworks to be a problem and a responsibility of all sectors of society [3,4].

Studies conducted globally and particularly in Cuba, on sexually transmitted infections and acquired immunodeficiency syndrome (STI/VS-HIV/AIDS) in adolescence demonstrate the need for comprehensive care for all sectors of society to achieve the physical, psychic and social balance of adolescents, which will help in their education, the only preventive weapon against these diseases.

In Latin America and the Caribbean, the contagion figures have increased considerably. Haiti is the hardest hit country with 5.6% of its total population and India is the second most AIDS-minded, behind South Africa with 5.3 million people, or 20% of its population. These diseases have a particular psychic, social and community dimension because of their connection to the field and sex life [5].

Beliefs on the issue of sexuality influence and may even determine that a teenager contracts an STI, but humans in practicing their sexuality and forming a couple necessarily involve their beliefs, whose latent evidence is their attitudes to the different aspects or phenomena we encounter over the course of life. They nuance life, while developing with it [6].

It has been intended to equate myths with beliefs and although both skelt human behavior, it is wrong to think that they are interchangeable concepts. Beliefs are coupled with the socialization of the individual and therefore inevitably nuance and reflect in their attitudes; so too are the myths that have accompanied the development of the individual [6].

Then the influence of beliefs can be evaluated through the engraving of beliefs in the attitudes of the human being. As “thinking” beings, we act as we think and not the opposite [6-8].

Sexual and reproductive health (SSR) is a right and to enjoy it adolescents need to know the measures and means to prevent unhealthy behaviors that may affect them, for this reason it is necessary to provide them with all the necessary preparation so that they can live their sexuality in a full and responsible way, that they know the variety of contraceptive methods to which they can resort and that have adequate information about the risks of a unwanted pregnancy or contagion with some STI [9].

Health education is an essential component at all stages of life but takes on special significance in adolescence because it is the ideal time to train them as responsible and productive young people for society; therefore, the investments made in them during this stage will yield great profits for several future generations, if it does not occur there will be considerable costs for people, the community and society. Education on these issues can achieve better results if started early in adolescence, when traits of sexual behavior and risk discernment are forming and are easier to model [10].

It is also known that perceptions of risk in adolescent sex often conflict with their attitudes, behaviors and knowledge, as they perceive risk, have knowledge, but assume risky behaviors and attitudes in relation to their SSR. All this reinforces the criterion that at this stage of life it is of great importance the analysis and planning of actions to address the problems arising from the low socio-economic and cultural level, living conditions, family dysfunction, low levels of education, peer pressures and to a lesser extent, but not least, the consequences of drug addiction, alcoholism and smoking [11].

All of them related to sexuality and health, are the most sense problems for young people and because they affect their health [12].

In this sense, the development of a comprehensive adolescent care strategy, focused on health promotion, risk prevention and improvement of care and self-care is vital for progressive health improvement [1,13,14]. According to data from the United Nations Children's Fund (UNICEF), the number of People suffering from STIs has been increasing worldwide for 25 years and there are currently around 40 million people living with HIV/AIDS, 2.9 million of whom are under the age of 19. Current statistics show that there are more than 333 million cases of curable STIs worldwide, with approximately one million contagions per day; there are 35 - 40 million infections per day in Latin America and the Caribbean alone.

Although Cuba is considered among the least affected countries, the epidemic has been marked by a slow and sustained increase, with the highest incidence in the last five years; men who have sex with other men constitute the group of greatest vulnerability. The predominant form of infection is sexual transmission, the group of 15 to 19 years is the second most affected by STIs, only surpassed by that of 20 to 24 years [16].

Attitudes depend on the experience, the link of the individual to the environment in which it develops. They are a general thing, a synthesis as a result of this bonding, which includes cognitive, emotional and behavioral elements. They cannot be considered to originate in one psychic area or another. Attitudes arise from the dialectical interrelationship between the individual and his medium and there his development is also marked. Western Psychology has considered attitudes as a phenomenon that occurs by psychic processes and not the other way around, that is, attitudes as regulators and policy-at-eeenes, yet the approach dialectic attitudes emphasize the interaction of such processes [17,18].

It is said that prevention is better than cure, but in the case of AIDS prevention is not simply better than curing: it is the only option. In the case of a deadly and incurable disease it is necessary to safely prevent it as it does not apply partial prevention for this deadly and incurable disease.

It is therefore appropriate to act on "the disease production process" and to fight so that practices and risk groups do not grow. If high-risk groups do not decrease and their behavior does not vary, no one can ensure that the disease will be eradicated and that the spread of AIDS will decrease because as long as the behaviors that promote transmission persist there will be an increase in the infected and an increase in the disease [18].

This theme shows that knowledge alone is not important when attitudes and behaviors are other, but the most important thing is information and ongoing guidance on minimizing the risks associated with the occurrence of sexually transmitted diseases. STI control depends on promoting safe sexual practices; it is essential to educate people and explain to them how to prevent the spread of these diseases, especially if they use condoms [10].

This research was carried out with the aim of assessing the impact of educational intervention on the prevention of sexually transmitted infections – HIV/AIDS, promoting knowledge about these and modifying beliefs, attitudes and perception of risk.

Method

It develops a study of quasi-experimental educational intervention with control group, quantitative approach in adolescents of the Basic Secondary School Antonio José Oviedo, municipality San José de las Lajas, in the period December 2017 to March 2018 and thus contribute to the prevention of STIs-HIV/AIDS.

The universe of study consists of 168 subjects that make up the total number of 9th graders. The sample was selected through the simple random method, consisting of 60 students who were characterized demographically, being left to homogenize the groups 30 students in the control group and 30 in the experimental group.

Inclusion criteria

9th graders belonging to the Antonio José Oviedo Basic High School.

Students authorized by parents to participate in the study.

Exclusion criteria

Refusal by the parent or child to participate in the study. Students who are absent from 3 sessions.

Techniques and procedures

The research was divided into three stages:

Diagnostic stage

The introduction to the educational program was made, where the work was known.

The survey was applied to students in order to specify the degree of information they have about STIs prior to educational intervention.

The survey model was the informative basis of the work; collected all the variables of interest, such as: sociodemographic, sexual activity, knowledge of STIs-HIV/AIDS, complications, beliefs about them, knowledge about condoms, perception of risk and attitude towards people infected with STIs. You were asked for written approval to be included in it.

Educational Intervention Stage

The results of the initial questionnaire were analyzed, and the educational strategy was designed. The dimensions were worked on explicitly in Ministerial Resolution 139/2011[19-21].

15 working sessions were held in the form of workshops with a weekly frequency and duration of 45 minutes, for 6 months.

During the sessions, the most frequent STIs, prevailing manifestations, transmission pathways, complications related to them were deepened, the correct use of the condom was emphasized, values such as companionship, altruism were strengthened, myths and erroneous beliefs about STIs-HIV/AIDS and condoms were broken down, the fields of vision were expanded close to perception of risky sexual behaviors for the acquisition of STIs in general.

Participatory techniques were used with the aim of achieving participation, animation and integration of participants and making it easier to understand these topics, as well as to promote reflection.

Evaluation stage

It was conducted six weeks later, where the initial survey was reapplied. In this way, the evaluation that was carried out before and after the intervention stage allowed to assess the changes in knowledge, which were considered as the effect or result of the educational work carried out with the adolescents.

The results are presented in the form of tables for best understanding.

Operationalization of variables

Variables	Variable type	Scale	Description	Indicator	
Sex	Dichotomous qualitative	nominal	Female Male	According to phenotype	Absolute frequency and percentage
Marital status	Qualitative polytomial	nominal	Married Consensual Union	Based on a relationship	Absolute frequency and percentage
Perception of risk of contracting STIs	Dichotomous qualitative	nominal	Suitable Inadequate	-Identification of entities such as ITS -STI transmission routes -Clinical manifestations of STIs -Consequences of contracting STIs -About protection and proper use of condoms	Absolute frequency and percentage

Attitude	Dichotomous qualitative	nominal	Suitable Inadequate	Provisions to assess favourably or unfavourably the situations in which an infested person might find himself.	Absolute frequency and percentage
Beliefs	Dichotomous qualitative	nominal	Suitable Inadequate	Emotionally accepted propositions, and which are an explanatory reference	Absolute frequency and percentage

Ethical aspects: communication to the scientific council of the institution. No disclosure and confidentiality of the student’s name. The data will only be used for scientific purposes.

Processing of information: the information was obtained from the results of the questionnaire created by INHE-M [14].

The processing was performed in the Microsoft Excel Office 2007 database, the data was collected in a data sheet using the Office Excel program, which allowed the information to be expressed using the percentage descriptive statistic, the statistical processing was performed by comparison of proportions and contrast test of Wilcoxon ranges.

The results were analyzed and discussed, comparing them with the results described in the literature by other authors, based on an inductive and deductive analysis, reaching conclusions and making recommendations aimed at establishing a group of actions aimed at increasing knowledge about STI-HIV/AIDS in the study group.

The qualitative component was related to the social aspects that aimed to understand certain behaviors, attitudes and how adolescents have been affected by events that occurred around them. It analyzed the subjective reality that allowed interpretative wealth and contextualized the phenomenon by expanding research [22].

Quantitative study: Through the questionnaire of the National Institute of Hygiene, Epidemiology and Microbiology (INHEM), information is collected, and the phenomenon is measured with the use of statistical methods that allowed the analysis of reality objectively [20,22].

Results

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Table 1 exhibits sociodemographic variables noting that they show homogeneity in both groups of the study in terms of sex, however statistically it does not constitute to be significant, if socially considered, the presence of adolescents who are married marital status or in consensual union in a total of 4 students.

Sociodemographic variable				
	Control group		Experimental group	
	No	%	No	%
Sex				
Male	14	47	13	43
Female	16	53	17	57
Civil Status				
Single	29	97	27	90
Married	-	-	1	3
Consensual union	1	3	2	7

Table 1: Distribution of control and experimental sociodemographic variables. ESBU Antonio José Oviedo. 9th grade.

Variables	Control group								Experimental group							
	Before				After				Before				After			
	Adecuad the		Inadequate ado		Fitness		Inadecu ado		Fitness		Inadecu ado		Fitness		Inappropriate	
	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%
Knowing cough	4	13	26	87	5	16	25	84	5	16	25	83	24	80	6	20
Attitudes	13	43	17	57	14	47	16	53	15	50	15	50	27	90	3	10
Beliefs	8	25	22	75	8	25	22	75	7	23	23	77	20	67	10	33
Perception of Risk	12	40	18	60	13	41	17	59	13	43	17	57	25	83	5	17
p < 0,001																

Table 2: Distribution of variables knowledge, attitude, beliefs and perception of risks in the experimental group and control before and after educational intervention. ESBU Antonio José Oviedo. 9th grade.

Analyzing the knowledge variable shows that both the control group and the experimental group in the pre-test were the significantly inadequate responses and that after the educational intervention the experimental group significantly responds adequately by 80%.

As for the attitudes both groups before the intervention show similar figures and that after the intervention increases significantly in the experimental group by 90%.

Equal behavior presented the variables of beliefs and risk perception with an increase in post-intervention percent of 67 and 83% respectively, considering themselves statistically significant.

When the variables of attitude, beliefs and risk perception between the control group and the experimental were statistically analyzed, significant differences ($p < 0.01$) were detected between the percentage values of the appropriate result when applying the proportion comparison test in two populations.

The analysis in the experimental group of the second assessment of the appropriate percentages between the variables of knowledge, attitude, beliefs and perception of risk found significant differences ($p < 0.01$) between knowledge (80%), beliefs (67%) attitude (90%) and risk perception (83%) applying the k-proportion comparison test with $k = 2$

Sub variating knowledge	Control group				Experimental Group			
	Suitable		Inappropriate		Suitable		Inappropriate	
	No	%	No	%	No	%	No	%
Identification of STIs	15	50	15	50	27	90	3	10
Transmission routes	18	60	12	40	25	83	5	17
Clinical manifestations	10	33	20	67	28	93	2	7
Consequence of STIs	11	57	13	43	30	100	0	0
Condom use	22	75	8	27	28	93	2	7
$p < 0,001$								

Table 3: Distribution of the sub variates of knowledge in the experimental group and post-intervention control. ESBU Antonio José Oviedo. 9th grade.

When observing the sub variables of knowledge in the post-intervention evaluation, significant differences between the control group and the experimental group are observed.

Analyzing the identification aspect of the different STIs shows that in the experimental group it becomes significantly adequate by 90%. Like transmission pathways, clinical manifestation, after suffering and condom use with an increase respectively of 83, 93, 100, 93 %.

Sub variable of knowledge	Male				Female			
	Suitable		Inappropriate		Suitable		Inappropriate	
	No	%	No	%	No	%	No	%
	1	3,3	4	13,4	24	80	1	3,3
$(p < 0,001)$								

Table 4: Distribution of knowledge relationship of STI transmission pathways with sex in the experimental group after the educational intervention.

When the knowledge of the transmission pathways in both sexes was analyzed, statistically proven significant differences were detected demonstrating adequate knowledge of females in relation to the male population (80%, 3.3%).

Discussion

The sex of the adolescents studied is quite homogeneous in both study groups with discrete predominance of female in both groups, coinciding with [23] several studies carried out in this age group on the subject of STIs. When analyzing the variable marital status was found that in both groups there are adolescents with [23] consensual and married union. It has also been found in other jobs this phenomenon with an increase to these ages of establishing marital relations, beginning even at earlier ages of sexual relations with an average value of 13.7 years, there is no psychic or biological maturity for such attitudes. This coincides with what was found with other authors who analyzed the 7 factors that affect the transmission of these diseases. The situation Previous exposes them to contracting STIs in both sexes and cervical alterations by infesting with human papillomavirus and cancer may develop [23,24] Cervi uterine. On the other hand, early sex can be a cause of pregnancies in adolescence that causes biological disorders, [24-31]. Psychological and social in adolescents Among the identification of STIs the most known to them were: syphilis, gonorrhoea and HIV/AIDS, followed by herpes simplex and condyloma. This coincides with [13,14] work carried out in different provinces of the country.

The authors consider that ignorance of clinical manifestations puts them at a disadvantage and at risk of contracting or complicating, since they are unable to perceive that they present it, as well as having symptoms and not identifying them as a clinical manifestation they do not seek medical help.

It is interesting that knowledge about condom use behaved with good scoring in both groups however, the rise of STIs and pregnancy in adolescence demonstrate the little use of this, then it could be questioned whether it is a problem related to inappropriate attitudes, low perception of risk or beliefs [18,34,35] inadequate, because beliefs determine many attitudes.

When addressing post-educational intervention, the perception of risk, investigating whether during the first sexual relationship may be exposed to an STI even if you have relationships with known people, there is an increase in appropriate responses, being positive this aspect since this is a protective factor. This is how alternatives for the prevention of STIs are raised by other authors.

Attitudes that depend heavily on the individual beliefs of adolescents, it was observed that in the control and experimental group before the intervention there are similar pre-intervention, however, in the experimental they increase significantly. Other authors who have also dabbled in the subject [30,31,34-37] similar results.

Conclusion

1. The socio-demographic characterization of the sample, yielded a predominance of the female sex, single marital status.
2. The variable knowledge, attitudes, beliefs and perception of risk in the experimental group were positively modified after the intervention Educational.
3. In the five sub-variables analyzed the best results were in the experimental group after the educational intervention with respect to the control group. The sub variate of STIs consequences was highlighted.
4. Educational intervention is effective in modifying knowledge, perception of risk, attitudes and beliefs.
5. Knowledge of the transmission pathways was greater in the female sex.

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