

# Sexual behavior of risk and prevalence of HIV, syphilis and hepatitis b in students of the police school of coronel oviedo. Year 2018

## Abstract

Currently, sexually transmitted infections (STIs) continue to be a major public health problem in the world, with sexual risk behaviors being a major factor in acquiring STIs. The Faculty of Health Sciences (FCS) integrating the Academic, Extension and Research has carried out a study with the objective of determining the sexual risk behavior and prevalence of HIV, Syphilis and Hepatitis B in students of the Coronel Oviedo Police College between the months of May to July 2018. A descriptive, cross-sectional investigation was carried out, with a target population of 116 students; the technique of data collection was a survey; as a tool, a validated questionnaire was used, elaborated and used in the Prevalence study of the human immunodeficiency virus, hepatitis B virus and *Treponema pallidum* in inmates of the Preventive Detention Center of Arica, Chile, from which the necessary items will be selected in order to collect first-hand information related to the behaviors sexual risk of police students. When analyzing the data, the sexual risk behavior and prevalence of HIV, Syphilis and Hepatitis B in students of the Police College of Coronel Oviedo, whose institution belongs to the area of influence of the Faculty, was determined. Of 116 students, it was found that 75.86% began their sexual relationship before the age of 16, 21.55% did not use a condom in their first sexual relationship, 53.98% have an occasional partner, 21.35% have more of a sexual partner and 29.01% used some type of drug in their sexual relationship, no HIV-positive students were found, but a positive student of syphilis and another student of hepatitis B were found. Educational talks were held on STIs and measures of prevention.

**Keywords:** prevention, ITS, syphilis, HIV

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## Introduction

Sexually transmitted infections (STIs) are still a major public health problem in the world, with sexual risk behaviors being a major determinant of STIs. The World Health Organization (WHO) estimates that more than 1 million people contract an STI every day and that some 357 million people each year contract one of the four most prevalent curable STIs: Chlamydia infection (131 million), gonorrhea (78 million), syphilis (5.6 million) and trichomoniasis (143 million). Among the viral STIs, the four most frequent correspond to infections caused by the human immunodeficiency virus (HIV), hepatitis B virus (HBV), herpes simplex virus (HSV) and human papillomavirus (HPV). For developing countries, HIV, hepatitis B and syphilis are a major health and economic burden globally. These infections are transmitted mainly through sexual intercourse, but are disseminated by the hematogenous route, allowing parenteral and vertical transmission.<sup>1</sup>

There have been numerous investigations at a global and regional level on sexual risk behaviors, HIV and AIDS, which indicate that there are increases in the number of people infected, especially in the adolescent and young population, which is between 15 and 24 year old. Therefore, it can be affirmed that young people are exposed to a high vulnerability in the exercise of their sexuality, a fact that is linked to the social search of self-affirmation and acceptance, phenomena that frequently involve the need to establish relationships and experience contacts sexual passengers.<sup>2</sup>

HIV continues to constitute an epidemic, in which the sexual route is one of its main modes of transmission. and its main risk factors are: not using the condom, having multiple sexual partners, the

frequency of sexual intercourse, beginning at an early age of sexual intercourse (at or before the age of 15), which has been associated with a greater number of sexual partners, having sexual intercourse under the influence of alcohol and other drugs, and having multiple occasional sexual partners, which constitute a risk for infection by HIV and sexually transmitted infections.<sup>3,4</sup>

To reduce the incidence and prevalence of STIs, behavioral-educational models based on theory that have been approved by scientific research are required. Recently published literature reports scarce young educational interventions; all of them have included high school students of both sexes. The results show a positive effect of these interventions on knowledge about HIV/AIDS and forms of protection; however, the practice of condom or contraceptive use has not been modified.<sup>5,6</sup>

This research work was conducted at the Coronel Oviedo Police College, aimed at the students of that institution, where the data will be surveyed through a survey and testing of HIV, Syphilis and Hepatitis B. The research is directed to that population by its internship situation, to give access to information through educational talks, prevention supplies (trptychs, diptychs, condoms) of STIs, HIV diagnosis, Syphilis and Hepatitis B and treatment in case the results were positive, in addition will help determine the risky sexual behaviors to which they are exposed.

## Materials and methods

The study is of observational, descriptive, cross-sectional type that was carried out between the months May to July of the current year in the Police College of the City of Coronel Oviedo. The study population corresponded to a total of 120 police students. But only 116 students

were surveyed and tested. The technique used for the data collection was a survey, as a validated questionnaire was used and used in the study of Prevalence of human immunodeficiency virus, hepatitis B virus and *Treponema pallidum* in inmates of the Preventive Detention Center of Arica, Chile (1), from which the necessary items were selected in order to collect first-hand information related to the risky

sexual behavior of police students. The first part of the instrument comprised the sociodemographic data of the subjects included in the study, the second one related to risky sexual behaviors through questions with multiple choice answers and in the third part the results of the HIV, Syphilis and Hepatitis B test were registered (Table 1).

**Table 1** Statement of study variables and operationalization

Study variable	Type and scale	Indicators	
Demographics	Age	Quantitative Discreet	Years old
	Sex	Qualitative Dichotomous	Female Male
	Civil status	Qualitative Nominal	Single Married Free Union Others. Specify
	Origin	Qualitative Dichotomous	Urban Rural
	Sexual contact	Qualitative Dichotomous	Yes Do not
	Age of first sexual contact	Quantitative Discreet	Age in years
	Use of contraceptive methods in their first sexual contact.	Qualitative Dichotomous	Yes Do not
	Type of sexual contact in the last month	Qualitative Nominal	Any Without penetration With penetration
	Sexual orientation	Qualitative Nominal	Heterosexual Homosexual Bisexual
Sexual risk behavior	Type of couple	Qualitative Nominal	Habitual couple Fixed couple Casual couple Sporadic couple
	Number of sexual partners frequently	Quantitative Discreet	Number of sexual partners
	Contraceptive method used in their first sexual contact	Qualitative Nominal	Birth control pills Condom Interrupted intercourse Others. Specify.
	Contraceptive method used frequently	Qualitative Nominal	Birth control pills Condom Interrupted intercourse Others. Specify.
	Some Sexually Transmitted Infection in the last year.	Qualitative Dichotomous	Yes Do not
	Consumption of some type of drug in their last sexual relation.	Qualitative Nominal	Alcohol Marijuana Tablet Cocaine Others. Specify.
	Result of the HIV test	Qualitative Nominal	Positive Negative
Prevalence	Syphilis test result	Qualitative Nominal	Positive Negative
	Result of the Hepatitis B test	Qualitative Nominal	Positive Negative

Prior to the execution of the project, it was handed over to the Research Directorate of the institution, to be submitted to the Board of Directors for approval. Once approved by the highest authority, a note was drawn up addressed to the Director of the Police School to carry out the project.

We counted on the support of nine (9) students of Bachelor in Nursing of the 4th year, who generated 20 hours in research for carrying out the following activities: training by the proponents for data collection (5 hours), sampling and realization of the test (10 hours) and load of data in a base elaborated for the effect (5 hours).

The reagents for the HIV, Syphilis and Hepatitis B tests were provided by the PRONASIDA Program of the Regional Hospital of Coronel Oviedo. During the realization of the test, counseling and testing was carried out, taking into account the national standards for the tests: Confidentiality, that the analysis is voluntary and free.

Each student with a Bachelor of Nursing had their cubicle to work and maintain the privacy of the patient and give greater confidence in the proportion of the data of the respondents and they were also supervised by the proponents of the project. The result was delivered at the end of the survey and the completion of the test.

Once the data were collected, they were entered into an Excel spreadsheet previously prepared for effect. These data were coded for insertion a statistical software, for its analysis of where the means, frequencies and percentages were obtained. The results obtained were presented by statistical tables and graphs. The main ethical aspects were taken into account according to the Belmont Report, where prior to the test and filling in the questionnaire the respondent signed an informed consent, to have evidence of the agreement to participate in this study is voluntary. Respecting their autonomy and privacy above all.

The personal information of the people involved was protected at all times. I did not verify any risk of harm to the well-being and health of the subjects studied. These data were of benefit, since it promotes a comprehensive health and prevention of STIs, generating

a space for the continuous improvement of public health. The subjects of this study were chosen fairly, without social, racial, sexual or cultural discrimination. The investigative fieldwork did not affect the vulnerability of the students in any way.

## Results

116 students of the Police College entered the study, 100% of the male sex, with an upper age limit of 27 years and a lower limit of 17 years, 50% of the students being between 20 and 23 years old, 97% with a civil status of single and 69% come from rural areas. When analyzing the risk behaviors, 100% stated that they have already started their sexual activity. 46.55% of the students started their sexual activity when they were under 15 years old (Figure 1).

78.45% used a contraceptive method in their first sexual relationship with the condom being the method of choice in 84.55%. It was found that 98.25% have a heterosexual orientation.

In a study carried out in 2015, Saeteros and Sanabria conducted a study on risk behavior and sexual and reproductive problems of Ecuadorian university students, this study showed similar results to those obtained in the study, where risk behaviors were evidenced: early onset of sexual relations, multiple partners, infidelity, sexual relations linked to substance use, difficulties with the use of contraceptive methods or protection<sup>7</sup> (Figure 1).

The type of sexual contact in the last 3 months was 57.02% with penetration (Figure 2), 53.98% reported having occasional partners, 21.35% had more than one sexual partner, the contraceptive method used more often the condom is 87.72%, 2.63% have had an STI in the last year and 29.01% use some type of drug in their sexual relationship.

In the year 2016, Bórquez and collaborators in their study of Prevalence of the human immunodeficiency virus, hepatitis B virus and Treponema pallidum in inmates of the Preventive Detention Center of Arica, Chile, where the prevalence of STIs was 13.6 %, 42.1% the age of onset of sexual activity was before 15 years and 94.7% declared to be a drug user.<sup>1</sup>

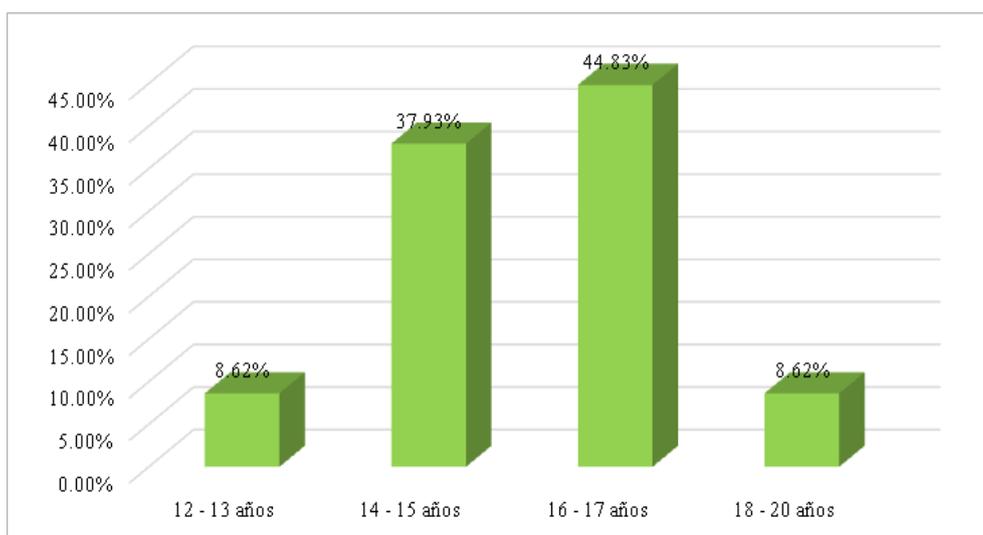
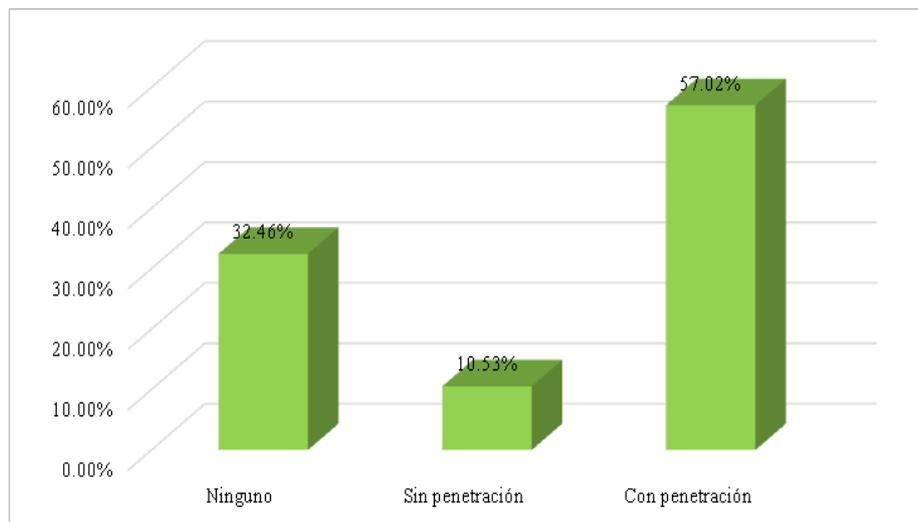


Figure 1 Age of your first sexual contact.



**Figure 2** Type of sexual contact in the last 3 months.

A student with positive testing for syphilis and a student with positive testing for Hepatitis B was found. In 2017, Alfonso and Figueroa, conducted an investigation on sexual risk behaviors in adolescents from the Cuban context, where they found that sexual risk behaviors in adolescents are determinants of their health. Determined by internal and external factors that may favor a decrease in the control of the situation and greater lack of protection to the human immunodeficiency virus, other sexually transmitted infections and unplanned pregnancies, in their conclusions they mentioned that it is vital to carry out early prevention of sexual behaviors. risk in adolescents through intervention programs with emphasis on the strengthening of Comprehensive Sexuality Education based on the promotion of healthy sexual behaviors.<sup>5</sup>

## Conclusion

A total of 116 students of the Police College, male, with an upper age limit of 27 years and a lower limit of 17 years, a civil status of single and coming from rural areas, entered the study. When analyzing risk behaviours, students in their entirety have already begun their sexual activity, initiating the highest percentage of students before age 15, using a contraceptive method in their first sexual relationship with the condom being the method of choice, they have a heterosexual orientation. The type of sexual contact in the last 3 months was with penetration, they said they had occasional partners mostly, the contraceptive method used most often is the condom and some used some type of drug in their sexual relationship. With this study it is concluded that the early onset of sexual intercourse and the lack of use of protective measures are risk factors for suffering an STI, as well as other studies carried out at an international level have been found.<sup>8-15</sup>

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## Conflict of interest

The authors declare no conflict of interest.

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