
SEXUAL AND REPRODUCTIVE HEALTH BETWEEN MALE AND FEMALE HIGH SCHOOL STUDENTS: A DESCRIPTIVE STUDY

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BACKGROUND

To guarantee that adolescents have access to sexual and reproductive health, it is required to have effective information that allows them to exercise their sexual rights in a free and responsible way. The objective of the present study is to compare the level of perceived knowledge that male and female high school students possess about sexual and reproductive health. **Methods:** A transversal non-experimental convenience-sampling study was designed with 125 male and 184 female students between the ages of 14 and 15 years. The implemented instrument consists of 60 items evaluated in four dimensions in a Likert-type scale, with an internal consistency reliability that varies in every dimension between $\alpha=.641$ to $\alpha=.842$, the way of evaluating this instrument is by how much assurance the participants have about their responses. The data were analysed through contingency tables by using Pearson's non-parametric chi-square test. **Results:** The obtained results reveal that there is no association between the variables of the study, identifying lack of awareness in both male and female students in sexual and reproductive health content. **Conclusions:** Incorporation of variables in future studies such as active sexual life and gender perspective are discussed,

in addition to emphasizing the importance of sexual education in the school-family binomial.

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INTRODUCTION

Sexual and reproductive health in teenagers has implications in the family, social and educational life of any country. Therefore, teenagers should have access to information and to sexual and reproductive health services; otherwise, the consequences could be unplanned pregnancy, the risk of contracting sexually transmitted diseases, in addition to the economic and health costs that this represents (1).

During the teenage stage, adolescents are going through a huge amount of developmental changes. Such changes allow them to reach their sexual maturity; thus, it is important that they have got access to high quality sexual education due to the risks of making uninformed decisions at this vulnerable stage.

Nowadays, sexual health and reproductive health are holistic concepts. Far from talking about the absence of diseases, both concepts involve a complete state of physical, mental, emotional and social well-being. (2).

Glazier, et al. in 2006 (3) explained that sexual health focuses on the sexuality of individuals and involves the possibility of having satisfactory and responsible sexual experiences by respecting the sexual diversity.

On the other hand, the UN in 1994, as quoted in Fathalla and Fathalla 2017 (2), pointed out that reproductive health refers not only to biological aspects about reproduction, but also to the faculty they have to decide (legally permitted) about it. In order to guarantee that all people have access to sexual and reproductive health, it is important to enable access to information and education on this issue. In the same way, it is also necessary that they are able to exercise their sexual rights.

According to Avery and Lazdane (1), sexual activity among adolescents usually occurs as a consequence of abuse, coercion or insistence of their partners. Women have been more likely to suffer these situations. Unfortunately, they do not feel empowered enough to delimit safe boundaries around sexual practises or to refuse to have sex.

In the same manner, WHO (World Health Organisation) has established within its sustainable development goals the universal access, as well as the rights to sexual and reproductive health services by 2030 (4).

Ensuring sexual and reproductive health is a public health problem. Internationally, the practise of unsafe sex causes numerous deaths and diseases. Within the poorest nations, it is the second highest risk factor for death; while, in the richest nations, it is the ninth. (3). It is important that governments, along with educational and health authorities, pay closer attention to this problem and execute strategies that are necessary to reduce the number of unplanned pregnancies and the high spread of sexually transmitted diseases.

It is crucial that teenagers have enough knowledge about contraceptive methods and their classification. (5). In 2014, 68.3% of the fertile women in Mexico confirmed that they have used modern contraceptive methods (any except for the rhythm, withdrawal and Billings). However, in 2018, the percentage decreased extensively, reaching 53.4% (6)

It is also essential to investigate subjects related to femininity, masculinity, biological issues and sexuality (7). 'Gender is the set of ideas related to sexual difference that attributes "feminine" and "masculine" characteristics to each sex, its activities, behaviours and different aspects of their lives. This cultural symbolisation of the anatomical differences results in an ensemble of activities, ideas and social roles that contribute to both objective and subjective behaviour of people, according to their sex. Thus, through the process of gender constitution, society elaborates an idea of what

men and women are supposed to be, and of what is “appropriate to each sex” (8).

Practices, beliefs and social roles have been a debate topic according to the anatomic distinction between men and women (9). They have even been assigned certain activities and responsibilities within a familiar, social and educative context. It has been analysed, for example, that women are the ones who generally have the responsibility of gathering information about sexual health considering that it is related to fecundity (10). This goes against decrees and politics that establish rights and responsibilities of men and women to exercise their sexuality with fairness (11).

An interesting fact in Mexican population is that men between 15 and 24 years old reveal higher percentage of Acquired Immune Deficiency Syndrome (AIDS) contagion in relation to women. There were 966 reported cases in 2019 of which 89.4% were men, and 10.55% were women (12). Likewise, the birth statistics rate presented by the INEGI from 2013 to date, have only reduced by 1.9% the percentage of births in adolescents younger than 20 years of age (6).

In that regard, decision-making to exercise responsibly and with the rights sexual and reproductive health in adolescent men and women becomes a component of analysis from a basic level that corresponds to adequately receiving information on issues such as sexual transmitted diseases, contraceptive methods, and the function of sexual role and its difference with gender and sex (13).

Even though adolescents of both sexes assumed being informed when having sexual practices, there is still a lack of information to practise them; mainly due to implications related to a gender perspective (10, 14, 15). In this way, getting male and female adolescents to make wise and responsible decisions about their sexuality is a fundamental issue, being important to have reliable and noteworthy information for an adolescent population surrounded by multiple influences.

In a study conducted by Rodríguez, Sanabria, Contreras and Perdomo (16) they found out a very high level of lack of knowledge related to the concept of sexuality, contraceptive methods, and a wrong evaluation about sexual transmitted diseases, in adolescent men and women between 14 and 20 years of age. Their work highlights the importance of school as a means of support to inform, together with family, on these issues; considering this information as an initial means for prevention.

In a study conducted by Rangel-Flores and Garcia-Rangel (17) differences between men and women with an average age of 20 years enrolled in five Bachelor degrees were reported. In this case, it was analysed that the use of condoms as a contraceptive barrier method was higher in men than in women. The differences seemed to be related to a gender perspective about the women representation related to the role they have in making decisions to freely exercise their sexuality. In a similar study, Robles, Moya, Padilla and Guzman (18) found in a population between 12 and 19 years that the way to interpret the meaning of sex from a gender perspective was a risk point in sexual and reproductive health topics.

Nevertheless, it is important to recognise which concepts will help students to get more information about this important topic, in addition to providing them an education about their health care and the way to have a healthy lifestyle, learning to make responsible decisions with the necessary information, primarily in high school students, due to, as it was noticed, there is a large percentage of the population affected by the consequences of misinformation.

Programmes are required to help divide the weight of the promotion of sexual health, because it is mostly focused on women, and these programmes need to take action of directing attention on preventing aspects to improve the sexual life of men, for two important reasons, the responsibility they have in the sexual health of women and in their own physical and mental health (19).

Therefore, to explore in educational environments where many adolescents begin sexual life, it will allow planning programmes for the prevention and promotion of sexual and reproductive health; with the solid conviction of promoting responsible and well-informed actions in making decisions about different ways of experiencing the masculine and feminine ideas in the exercise of sexuality.

The objective of this study is to compare the Perceived Knowledge Index (PKI) that high school students have about sexual and reproductive health, definition of concepts (sex, gender, sexuality, and sexual orientation), sexually transmitted diseases and contraceptive methods.

HYPOTHESES

H₀: the variable of sex is not associated with the PKI of high school students.

H₁: there is an association between the variable of sex and the PKI.

METHODS

According to Hernández Sampieri, quantitative research seeks the statistical analysis of certain data through numerical measurements. A non-experimental study does not involve a deliberate manipulation of independent variables, lacking an intervention coming directly from the researcher. Due to the one-time data recollection and the scope of a comparative description between groups and variables, a cross-sectional and descriptive study was carried out (20).

SAMPLE AND RECRUITMENT

A convenience sample was selected for this study, which should be used when there is just a part of the population available to work with (20). There was a total of 309, 125 (40.5%) men and 184 (59.5%) women, first semester high school students between 14 and 15 years old. This study was executed in the State of Nuevo Leon, Mexico.

Regarding the sexual orientation of the participants, a 90.6% (280) of the participants had heterosexual preferences, the 4% (12) bisexual, a 3.2% (10) had doubts about their sexual preferences and the 2.3% (7) had homosexual preferences.

They were also asked if they had an active sexual life. In this aspect, 88% (272) answered negatively, and the 12% (37) answered positively. The 57% of the participants (177) have had a partner for more than 3 to 6 months and 43% (132) have not.

INSTRUMENT

The instrument called 'Sexual and Reproductive Health Diagnostic Instrument' by García Moreno (21) was used, which was adapted from the instrument of the study 'Preventive sexual education in adolescents' by Thimeos (2013). The instrument has a section of sociodemographic data; four dimensions in Likert-type scale format ranging from a) Yes, and I am very sure, b) Yes and I am somewhat sure, c) No and I am very sure, d) No, and I am somewhat sure, and e) I do not know. Lastly, it has a dimension with four levels of response.

The sociodemographic data section explores age, sex, semester, sexual preference, whether or not they have a partner and an active sexual life; in addition to questioning them about the source of information on sexuality issues.

Table 3 describes every dimension of the instrument. The first dimension consisted of six items, of which 4 were indirect and 2 were direct. These items were about 'Sexual and Reproductive Health' (SRH) and showed the previous knowledge that the students already had about the general topic. This dimension has a Cronbach's alpha of $\alpha = .641$.

The second dimension is named 'Definition of Concepts' (DC) and was made up of 8 items, of which 4 were direct and the rest indirect (Cronbach's alpha of $\alpha = .652$) and it measures the knowledge that students have about the concepts of gender, sexual role, sexuality and sexual orientation. Third dimension is

called 'Contraceptive Methods' (CM), and it consists of 34 items: 17 direct and 17 indirect. Its Cronbach's alpha is of $\alpha = .842$.

Fourth dimension is titled 'Sexually Transmitted Diseases' (STDs) and consists of 12 items, of which 6 were direct and 6 indirect. The items of this dimension were mainly about HIV and AIDS. This dimension had the objective of identifying the knowledge that young people possess about these terms and their differences. The Cronbach's alpha obtained was $\alpha = .814$.

Lastly, the final section of the instrument was named Sources of Information (SI) and consists of eight items, which included different possible sources of information to which adolescents have had access to receive information about sexual and reproductive health. On this section, they were able to choose more than one option. The items were designed with four response options (always, sometimes, hardly ever, and never).

The type of answer (TA) for each item and the assigned value, goes according to the following classification: 'correct and very sure' (CandVS) has a value of 5 points; 'correct and somewhat sure' (CandSS) is worth 4 points; 'incorrect and very sure' (IandVS) is worth 3 points; 'incorrect and somewhat sure' (IandSS) is 2 points, and 'I do not know' (IDNK) is 1 point.

DATA COLLECTION

Once the high school authorised the application of the instrument, the participants were asked for their informed consent. Subsequently the application of the instrument was programmed in the school's computer lab and the application proceeded.

Later on, directions were explained in extent, describing the purpose of the investigation and the instructions for answering the instrument. The confidentiality of the responses was emphasised to the participants, since their participation was anonymous. Additionally, participants were asked to respond the instrument with honesty. The applicator resolved doubts participants had about the form of answering the instrument. However, the applicator was careful so as not to influence in the answers.

The time allocated for the group application and answering of the instrument was 50 minutes; but the students finished in about 20 minutes.

DATA ANALYSES

The procedure to evaluate the answered instrument is as follows. First of all, it is necessary to identify the TA for each item and to assign a value, according to the classification listed on the instrument description.

The Perceived Knowledge Index (PKI) of each dimension is then obtained, through the sum of the corresponding scores. Then, the value is evaluated according to the 5 levels of perceived knowledge, considering the security of the responses. The values and their explanation can be observed in Table 2.

The PKI is the dependent variable in this study, and the independent variable is the sex of the participant. A database with the 309 participants' individual results of each item was elaborated; direct and inverse values were considered for every item. Then, the global grade per student in each of the four dimensions was calculated, and this variable was transformed considering the maximum and minimum possible values.

Once the database was ready, a statistical analysis was made, using Pearson's non-parametric Chi-square test to evaluate the ordinal variable of the PKI, in relation to the nominal variable of sex. The calculation of said test was with contingency tables.

The null hypothesis (H0) of the present study assumes that the variable of sex is not associated with the PKI of high school students. On the other hand, the alternative hypothesis (H1) assumes that there is an association between the variable of sex and the PKI.

ETHICAL ASPECTS

Student participation in this research was voluntary. When the Google Forms was presented, an informed consent statement was provided, included in the very first section of the questionnaire;

before answering the instrument, they were asked if they agreed to be participants for the research study. Participants were told that personal data would not be revealed, this means that general data was asked to describe the sample, omitting names.

RESULTS

Next, obtained results are presented dimension by dimension about the PKI that participants showed about sexual and reproductive health.

On the first dimension about SRH (Table 4) it can be verified that obtained and expected values in men and women according to PKI were practically the same. Pearson's non-parametric chi-square test obtained was =4.23, gl3 and a p value higher than 0.05 ($p=0.22$). Consequently, H1 is rejected, since there is no association between the variables. An intriguing fact is that higher percentages in dimension 1 are found in both men (71.2%) and women (45%) in incorrect and very sure knowledge.

On dimension two, where concepts about gender, sexual role, sexuality and sexual orientation are explored, Pearson's non-parametric chi-square test obtained was =7.055^a, gl3, $p=.07$. On this matter, invalid hypothesis that points out that there is not dependency between sex and concepts' definitions mentioned in this paragraph is accepted.

As table 5 shows, adolescents show a lack of awareness of 51 or 52% about these terms, and the most striking thing about this fact is that they believe that what they know is correct, when it is not. The same thing happens with obtained percentages in incorrect and somewhat sure knowledge (IandSS). In the case of women the percentage was 32.1% and men obtained a 28%.

Results showed in table 6 indicate that there is no Pearson's chi-squared association (=6.492^a, gl3, $p=0.09$) between men and women related to dimension 3 (contraceptive methods). As well as in the previous dimensions, there is no relative data to observed recounts in the indicator correct and very sure. Plus observed recount in women it was zero in correct and barely

sure knowledge; and in men it was just 1.6%. The majority of observed frequencies were in incorrect information, either very sure knowledge (38% in women and 48% in men) or in somewhat sure knowledge (51% in women and 40% in men).

About obtained results for information comparison in dimension 4 (sexual transmitted diseases) it was found that there is no association with independent variable sex. Pearson's non-parametric chi-square test result was = 3.469^a, gl 3, p=0.325. Likewise, observed recount for perceived knowledge in this dimension was in its majority incorrect information. Men got a 53% of very sure knowledge with it is incorrect, and a 26% are not very sure about their responses. Talking about women, 44% of them think they have correct information when in fact they are wrong, and 34% have doubts about their responses. On the other side, just a 13% of women have correct information and somewhat sure, while men have a 14% (Look at table 7).

Finally, an additional section was added to previous data, and it was to identify the sources of information of sexual and reproductive health for men and women. Percentages reveal that it is through their mothers the way they can access to this kind of information (60%) followed by teachers (43%) and friends (42%). Fathers are reported with a 32% just as any other family member with a 31%. Just an 11% go to other kind of sources of information.

DISCUSSION

The main objective of the present study was to compare the level of knowledge that male and female high school students have about four dimensions (sexual and reproductive health, concepts definition with sex, sexuality, gender, contraceptive methods and sexual transmitted diseases), through an instrument that measures the PKI.

Considering the survey respondents results, it can be assumed that there is not dependence between sex and PKI in none of the four explored dimensions. This measures, allow establishing that women and men have the same information.

These discoveries could contradict what literature previously mentioned says, showing that a gender perspective plays an important role on the free exercise of sexuality, as well as on chosen contraceptive methods and search of information about sexual practices (10, 14, 15, 17). It is necessary to discuss the context of each application.

Studies have emphasised that gender differences are found in adolescents that have already started a sexual life (14). And particularly, women are the ones who have an active role to look for information about these topics due to the responsibility of preventing an unplanned pregnancy falls on them. This study has the strength of a big sample possibly having more precise results. Nevertheless, it is important to indicate that there is a huge difference between sexes on the sample, only 8.5% being men, this could be the reason why gender differences were found.

Now, even though men are the ones who start an early sexual life as opposed to women (22); it does not have to be related to PKI in this study variables. In the case of the present study, just a 12% reported having had an active sexual life, which could be an impact element in a more exhaustive interpretation about established objective in the present study. It makes it important to consider those variables for this kind future research.

Another data is the differentiation between men and women with respect to contraceptive methods information. Reported data show that just 1.6% of men have correct information, and in women a non-existent percentage was obtained. This also coincides with data found in sexual transmitted diseases dimension, where just 14% of men and 13% of women have correct information about vasectomy, DIU, feminine condom, interrupted coitus, contraceptive pill, etc. The important thing to emphasise in reported discoveries is that independently if it is a woman or a man, to make responsible actions, sufficient and accurate knowledge is necessary to start a preventive process. And where they can receive reliable information that protects them from risks that could affect their future lives in different ways is

at school (23). The described results reveal an important lack of information about sexual and reproductive health self-care and a well-balanced gender perspective, in addition to inappropriate knowledge about basic concepts that involve sexual health, what is more that mother is their first guiding (16). There is resemblance with what was found in this study, having similar samples, and the lack of information and mothers being the main source of knowledge as results.

In contrast to this study, authors have previously found a significative difference between men and women in relation to sexual transmitted diseases (17), being women more affected. Even then, the sample was not equitable (66% being women), and most of the teenagers have already started an active sexual life, which could affect the incidence of this kind of disease.

The adolescents in the present study are not conscious of their conceptual scarcity about sexual and reproductive health, and obviously this may have implications in making decisions and in their way to exercise their sexuality. In this sense, a way to bring closer support sources to this vulnerable group is through awareness of those limitations that is why a self-applied instrument as the one proposed in here could be a pedagogical auxiliary in educational environments.

Considering the present study results, it is a challenge to continue research through different application strategies that seek prevention through the incorporation of parents as primary educators of adolescents. Also, in combination with the teachers they can strengthen self-care resources for sexual education in adolescents. The contribution of the findings presented here lies in the use of an instrument that screens the knowledge that they have in adolescents and that could be compared before and after an intervention. Moreover, to establish the guideline for teachers to redirect their contents and pedagogical strategies to reinforce information that could be considered as correct for adolescents.

Doubtlessly, education provides information to young people about sexual health. Nevertheless, it is supplied the same

way to men and women. Nowadays, it is not only relevant to get to know differences between genders, but to explore how they think, what kind of information they have, and what attitudes they assume with different sexual preferences. The main impact of this sort of studies is to know and work with the precise differences of the ones that at the end of the day, have the responsibility of taking or not selfcare decisions about sexual and reproductive health, which is why it is important to carry on with this line of research.

STUDY LIMITATIONS

The assessment instrument has been introduced with high-school adolescents, nevertheless, it is necessary to validate the evaluation form in which ranges are established to delimit the level of perceived knowledge and to compare it with other level marks. In fact, the instrument is designed as a knowledge test, but it also has the level of certainty that they have about the selected topics, that is why it has to be compared with another evaluation forms.

On the other side, results could be theoretically interpreted considering gender perspective; that makes it convenient to integrate other variables that could support a more complete understanding of the phenomenon studied, especially focused on differences between men and women.

An additional criterion to interpret and differentiate the PKI in men and women in future research could be to consider sexual active life (21).

In some countries, actions have been taken about primary attention in sexual health topics, with a gender perspective. Cuba is an example of it, where proposals with certain differences have been made with a huge impact on preventive development programs to control sexual transmitted diseases (19).

Additional variables, such as the age in which sexual-active life starts (24), can be an aspect to explore, providing highest understanding to taken actions by teenagers, as well as the attitudes assumed at sexual activity (25). Inclusive, questioning the family history about sexual transmitted diseases.

Finally, it is concluded that men and women evaluated in the present study have an important lack of knowledge in topics related to sexual and reproductive health, with no significant difference between them. It is necessary to implement sexual education strategies at school and to strengthen the use of this instrument for that aim.

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DECLARATION OF INTEREST STATEMENT

The authors declare no conflicts of interest.

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Table 1
Sample's description

Sex		
	Percentage	Frequencies
Women	40.5%	125
Men	59.5%	184
Total	100%	309
Sexual orientation		
	Percentage	Frequencies
Heterosexual	90.6%	280
Bisexual	4%	12
Homosexual	2.3%	7
In doubt	3.2%	10
Total	100%	309
Active sexual life		
	Percentage	Frequencies
Yes	12%	37
No	88%	272
Total	100%	309

More than three to six months relationship		
	Percentage	Frequencies
Yes	57%	177
No	43%	132
Total	100%	309

Note: data collected from the sample.

Table 2

Interpretation table of obtained values per dimension

	D1 SRH	D2 CD	D3 CM	D4 STDs
Correct and very sure (CandVS)	30	40	170	60
Correct and somewhat sure (CandSS)	29-24	29-32	169-136	59-48
Incorrect and very sure (IandVS)	23-18	31-24	135-102	47-36
Incorrect and somewhat sure (IandSS)	17-12	23-16	101-68	35-24
I do not know (IDNK)	11-6	15-8	69-34	23-12

Note: scores are obtained considering maximum and minimum possible responses in each dimension.

Table 3

Diagnostic instrument dimensions of sexual and reproductive health

Dim	Item	Dim	Item
SRH	1. Sexual and reproductive health is defined as the act of having sexual relationships and how frequent you have them.*	22.	Calendar cannot indicate the days in a month in which a woman is fertile.*
	2. Sexual and reproductive health is defined as the right of a satisfactory and full sexual practice to procreate.*	23.	Spermicides are chemical substances that are distributed in the vagina before starting the sexual act.
	3. People have the right to receive verified information about safe contraceptive methods.	24.	Masculine condom is a thin case that is collocated in the erect penis.
	4. Sexual and reproductive health means to have sexual relationships in a free and healthy way.*	25.	Patches are changed once a week during three weeks.
	5. Sexual and reproductive health is defined as the freedom to decide having sexual relationships, when and how frequent.	26.	Contraceptive vaginal sponges avoid the sperm ascent to vaginal cavity by making a barrier.*

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Dim	Item	Dim	Item
	6. Sexual and reproductive health implies having kids in the moment it is considered obligatory.*		27. Feminine condom is a case with rings, with opposite open and flexible sites.*
CD	1. Characteristics and specific actions for each gender does not define sexual role.*		28. The purpose of injectable contraceptive methods is to avoid semen crossing to uterus.*
	2. Sexuality is a biopsychosocial phenomenon.*		29. The next day pill is not a contraceptive method.
	3. Sexual orientation does not mean which sex we feel attracted to.*		30. Vasectomy is an example of a permanent contraceptive method.
	4. Sexuality is just a biological phenomenon.*		31. When interrupted coitus is used as unique contraceptive method there is a risk of pregnancy.
	5. Sexual orientation means which sex we feel attracted to.		32. Contraceptive pills have 21 pills, the first one is taken the first menstruation day, then one a day.
	6. Sexuality is expressed as thoughts, fantasies, wishes, beliefs, attitudes, values, activities, practices, roles and relationships.		33. Masculine condom is a gross case that is collocated in the erect penis.*
	7. Sexual role are the characteristics and specific actions for each gender.		34. Patches are changed one a day during three weeks.*
	8. Sexuality is just related to sexual practices.*	STVs	1. HIV and AIDS are synonyms.*
CM	1. Subdermal implant is a flexible rod shaped like a T that avoids ovulation.*		2. HIV is a bacterium that attacks people's immune system.*
	2. Diaphragm blocks semen in its way to vaginal cavity.*		3. HIV are the acronym to Human Immunodeficiency Virus.
	3. Contraceptive methods are the ones that reduce significantly the possibilities of fecundity in fertile women.		4. HIV is acquired just by sexual contact.*
	4. The IUD is a device shaped like a T that avoids sperm to fertilise the ovule.		5. HIV and AIDS do not happen at the same time.
	5. The purpose of injectable contraceptive methods is to avoid ovulation.		6. HIV are the acronym to Human Immunological Virus.*
	6. Vasectomy is not an example of a permanent contraceptive method.		7. HIV and AIDS are different concepts.
	7. Vasectomy is not an example of a permanent contraceptive method.*		8. AIDS are the acronym to Acquired Immunodeficiency Syndrome.
	8. Contraceptive methods are the ones that avoid fecundity in fertile women.*		9. HIV is a virus that attacks people's immunological system.
	9. The IUD is a flexible that avoids sperm to fertilise the ovule.*		10. HIV is not acquired just by sexual contact.
	10. The contraceptive pill is an effective contraceptive method.*		11. HIV and AIDS happen at the same time.*
	11. Feminine condom is a case with two rings, one is flexible and closed, and the other one is rigid an opened.		12. AIDS are the acronym to Acquired Immunological Syndrome.*

Dim	Item	Dim	Item
	12. Interrupted coitus is an effective contraceptive method.*		
	13. Spermicides are chemical substances that are distributed in the vagina once finished the sexual act.*		
	14. Cervical mucus indicates the evolution stage in which a woman is.		
	15. Contraceptive methods are divided into temporary and permanent.		
	16. Diaphragm blocks semen in its way to cervix.		
	17. Calendar indicates the days in a month in which a woman is fertile.		
	18. Vaginal contraceptive sponges avoid the sperm ascent to uterine cavity by making a barrier.		
	19. Cervical mucus indicates the fecundity stage in which a woman is.*		
	20. Contraceptive methods are divided into two groups: barrier and natural.*		
	21. Contraceptive pills have 31 pills, the first one is taken the first menstruation day, and then one a day.*		

Note: * means indirect item.

Table 4

Sexual and reproductive health dimension cross-tabulation

		Mean in dimension 1. Sexual and reproductive health				
		CandSS	IandVS	IandSS	IDNK	Total
Sex	Observed Frequencies	21	139	20	4	184
	Expected frequencies	23.8	131.0	10.9%	5.4	184.0
	% in Sex	11.4%	75.5%	75.5%	2.2%	100%
Masculine	Observed Frequencies	19	81	20	5	125
	Expected frequencies	16.2	89.0	16.2	3.6	125.0
	% in Sex	15.2%	64.8%	16.0%	4.0%	100%
Total	Observed Frequencies	40	220	40	9	309
	Expected frequencies	40.0	220.0	40.0	9.0	309.0
	% in Sex	12.9%	71.2%	12.9%	2.9%	100%

Note: Perceived Knowledge Index percentage in men and women.

Table 5
Definition of concepts dimension cross tabulation

		Mean in dimension 2. Definition of concepts					
		CandSS	IandMS	IandSS	IDNK	Total	
Sex	Feminine	Observed Frequencies	11	96	59	18	184
		Expected frequencies	17.3	95.3	56.0	15.5	184.0
		% in Sex	6.0%	52.2%	32.1%	9.8%	100%
Sex	Masculine	Observed frequencies	18	64	35	8	125
		Expected frequencies	11.7	64.7	38.0	10.5	125.0
		% in Sex	14.4%	51.2%	28.0%	6.4%	100%
Total		Observed frequencies	29	160	94	26	309
		Expected frequencies	29.0	160.0	94.0	26.0	309.0
		% in Sex	9.4%	51.8%	30.4%	8.4%	100%

Note: Perceived Knowledge index percentage in men and women.

Table 6
Contraceptive methods dimension cross tabulation

		Mean in dimension 3. Contraceptive methods					
		CandSS	IandVS	IandSS	IDNK	Total	
Sex	Feminine	Observed frequencies	0	70	94	20	184
		Expected frequencies	1.2	77.4	86.3	19.1	184.0
		% in Sex	0.0%	38.0%	51.1%	10.9%	100%
Sex	Masculine	Observed frequencies	2	60	51	12	125
		Expected frequencies	.8	52.6	58.7	12.9	125.0
		% in Sex	1.6%	48.0%	40.8%	9.6%	100%
Total		Observed frequencies	2	130	145	32	309
		Expected frequencies	2.0	130.0	145.0	32.0	309.0
		% in Sex	0.6%	42.1%	46.9%	10.4%	100%

Note: Perceived knowledge index percentage in men and women.

Table 7

Sexual transmitted diseases dimension cross tabulation

Mean in dimension 4. Sexual transmitted diseases.			CandSS	IandVS	IandSS	IDNK	Total
Sex	Feminine	Observed frequencies	24	82	64	14	184
		Expected frequencies	25.0	88.7	57.8	12.5	184.0
		% in Sex	13.0%	44.6%	34.8%	7.6%	100%
Masculine	Observed frequencies	Observed frequencies	18	67	33	7	125
		Expected frequencies	17.0	60.3	39.2	8.5	125.0
		% in Sex	14.4%	53.6%	26.4%	5.6%	100%
Total	Observed frequencies	Observed frequencies	42	149	97	21	309
		Expected frequencies	42.0	149.0	97.0	21.0	309.0
		% in Sex	13.6%	48.2%	31.4%	6.8%	100%

Note: Perceived knowledge index percentage in men and women.