Attitudes and embarrassment about condoms in nursing students

Atitudes e embaraço face ao preservativo em estudantes de enfermagem

Actitudes y vergüenza ante el preservativo en estudiantes de enfermería

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Abstract

Objective: To investigate the perception of individual risk of HIV infection; to assess knowledge about HIV infection; to learn about condom use attitudes according to gender; to investigate embarrassment about obtaining, negotiating and using condoms according to gender, whether male or female condom.

Method: This was an analytical cross-sectional study. A non-probabilistic sample was assembled consisting of 102 nursing students. Instruments: sociodemographic and risk perception questionnaire; knowledge test; scale of embarrassment about condom use; condom attitudes scale.

Results: Perception of risk of HIV infection is favorable/very favorable for more than 50% of young people and there was no statistical difference between the sexes (X^2=2.213; GL= 4, p= 0.697). Of the participants, 86.3% had never been tested for HIV and 86.1% did not recall any HIV prevention campaign. The global result of the knowledge test was 83.7%. The medical-scientific dimension presented the lowest results (77.8%) Embarrassment about obtaining condoms was higher among the women than men (t=-2.08; p=0.04). Attitude towards using condoms was not significantly different between the genders (t= -1.20; p= 0.23).

Conclusion: The students had a good perception of the risk of HIV infection, but presented low adherence to HIV testing and most did not remember the last prevention campaign. They presented having a high level of knowledge, but they need to improve their knowledge in the medical-scientific dimension. Female students were more embarrassed than the male students about condoms, however, the attitudes towards them were identical. Educational programs continue to be essential.

Resumo

Objetivo: Conhecer a perceção do risco individual de infeção HIV; avaliar conhecimentos sobre infeção HIV; conhecer atitudes face ao uso do preservativo em função do sexo; conhecer o embaraço na aquisição, negociação e uso do preservativo em função do sexo, independentemente de preservativo masculino ou feminino.

Métodos: Estudo analítico-transversal. Amostra não probabilística constituída por 102 estudantes de Enfermagem. Instrumentos: questionário sociodemográfico e perceção do risco; teste de conhecimentos; escala de embaraço no uso do preservativo; escala de atitudes face ao uso do preservativo.

Resultados: A perceção do risco de infeção HIV é favorável/muito favorável para mais de 50% dos jovens e não estatisticamente diferente entre sexos (X^2= 2,213; GL= 4, p= 0,697). Dos jovens inquiridos, 86,3% nunca fez teste HIV e 86,1% não se recorda de qualquer campanha de prevenção. O teste de conhecimentos teve resultado global de 83,7%. A dimensão médico-científica mostrou os resultados mais baixos (77,8%). O embaraço na aquisição do preservativo é superior nas inquiridas comparativamente com os inquiridos (t=

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-2,08; p= 0,04). A atitude face ao uso do preservativo não é significativamente diferente em função do sexo (t= -1,20; p= 0,23).

Conclusão: Os estudantes têm boa perceção do risco de infeção de HIV, mas baixa adesão à realização do teste e a maioria não se recorda da última campanha de prevenção. Os conhecimentos revelados são elevados, mas necessitam de ser incrementados na dimensão médico-científica. As estudantes revelam mais embaraço do que os estudantes face ao preservativo, porém, as atitudes manifestadas são idênticas. Programas formativos continuam imprescindíveis.

Resumen

Objetivo: Conocer la percepción del riesgo individual de infección por VIH. Evaluar los conocimientos sobre infección por VIH. Conocer las actitudes ante el uso del preservativo en función del sexo. Conocer el nivel de vergüenza en la adquisición, negociación y uso de preservativos en función del sexo, tanto preservativos masculinos como femeninos.

Métodos: Estudio analítico transversal. Muestra no probabilística, formada por 102 estudiantes de enfermería. Instrumentos: cuestionario sociodemográfico y percepción del riesgo, prueba de conocimientos, escala de vergüenza en el uso de preservativos, escala de actitudes ante el uso de preservativos.

Resultados: La percepción del riesgo de infección por VIH es favorable/muy favorable para más del 50 % de los jóvenes y no es estadísticamente diferente entre sexos (X^2= 2,213; GL= 4, p= 0,697). De los jóvenes encuestados, el 86,3 % nunca realizó una prueba de VIH y el 86,1 % no recuerda ninguna campaña de prevención. El resultado global de la prueba de conocimientos fue del 83,7 %. La dimensión médico-científica tuvo los resultados más bajos (77,8 %). La vergüenza en la adquisición de preservativos es superior en las encuestadas en comparación con los encuestados (t= -2,08; p= 0,04). La actitud ante el uso del preservativo no es significativamente diferente en función del sexo (t= -1,20; p= 0,23).

Conclusión: Los estudiantes tienen una buena percepción del riesgo de infección por VIH, pero una baja adherencia a la realización de pruebas y la mayoría no recuerda la última campaña de prevención. Los conocimientos revelados son altos, pero necesitan aumentar en la dimensión médico-científica. Las estudiantes revelan más vergüenza que los estudiantes ante el preservativo, pero las actitudes manifestadas son idénticas. Los programas educativos continúan siendo imprescindibles.

Introduction

Sexually transmitted infections (STIs) are a global public health problem. According to the Joint United Nations Programme on HIV/AIDS, in 2017 about 5000 people were infected per day with HIV. Of these, 4400 were young adults over the age of 15, of which 33% were 15-24 years old and 19% were female.[1]

Portugal presents one of the highest HIV infection rates in the European Union, with 10 cases/100,0000 inhabitants, compared with the EU average of 5.7/100,000 inhabitants[2], and of these, 33.2% are between 15-29 years old, 14.6% are between 15-24 years old[3] and 53.2% are late diagnoses.[4]

The development of school health educational programs has been noteworthy. Currently, about 80% of young people receive sexual education related to this topic[5] , which is of great importance, since students who receive education are more likely to test for HIV when engaging in risky sexual behaviors.[5] However, there are gaps in terms of misconceived individual and collective attitudes and beliefs and discrepancies between knowledge and risky sexual behaviors.

Nursing school students show a low perception of the risk of HIV infection and low adherence to HIV/AIDS testing.[6] University students in Oakland achieved a 98% of adequate knowledge about HIV transmission, but 53% showed wrong ideas; 70% indicated that condoms were a means of prevention, but only 28% used them; 67% reported being sexually active, but only 19% had been tested for HIV in the last two years, and most of these were women.[7] There is evidence that women recognize the importance of condoms more than their male counterparts,[8] The HIV test was also carried out more frequently by women[5]

To increase the efficacy in the fight against STIs, especially HIV/AIDS, it is of utmost importance to continue investing in education as a means to prevent risky sexual behaviors; however, the methodologies must be reviewed. In a study with adolescents, they reported the need to include educational material about STI/HIV/AIDS in order for it to be discussed and improve knowledge on the topic. Furthermore, the participants indicated that discussing the use of condoms during sexual relations should be a priority in order to focus on adherence to condom use. Thus, education should put students into leading roles, so that they can construct knowledge and a feeling of mastery about the topic.[9]

This study aimed to investigate the perception of individual risk of HIV among nursing students; to

evaluate the level of knowledge about HIV prevention and transmission; to explore condom attitude according to gender; and to assess embarrassment about obtaining, negotiating, and using condoms for sex, whether a male or female condom.

Methods

This was a quantitative, analytical-cross-sectional study with a non-probabilistic convenience sample consisting of 102 second-year undergraduate nursing students from a school in the Central Region of Portugal, who voluntarily agreed to participate, after being informed of the objectives of the study. Inclusion criteria were being over the age of 18 years and exclusion criteria were the irregular completion of the questionnaire. Data collection was. carried out in June 2019.

Data collection was performed using a sociodemographic and health questionnaire (serological status and perception of susceptibility to HIV infection) developed specifically for the study. The HIV/AIDS prevention knowledge subtest from the HIV Infection Transmission and Prevention Knowledge Test by Koopman and Reid translated and adapted into Portuguese[10], consisting of dichotomous true/false 45 questions. This test evaluates three dimensions: medical-scientific knowledge, myths about HIV transmission and knowledge about high-risk behaviors and preventive behaviors and its total score ranges between zero and 100%. The Attitude Towards Condom Use Subscale, one of the five subscales of the Sexual Risks Scale, by DeHart and Birkimer translated and adapted into Portuguese;[10] contains 13 items scored on a five-point Likert scale. The higher the scores the more favorable the respondent's pre-disposition towards safe sex practices. The Condom Embarrassment Scale by Vail-Smith and Durham, translated and adapted into Portuguese,[11] contains three dimensions, the first relative to obtaining, purchasing/obtaining, or possessing condoms, the second to negotiating the use of condoms with partners, and the third about the using condoms. It is an 18-item Likert-type scale with 5 answer options. The score ranges from 18 (lowest level of embarrassment) to 90 (highest).

The data were processed using Statistical Package for Social Sciences software for IBM, version 24. Student's t-tests were used for independent samples and Chi square.

The research was approved by the Health Sciences Research Ethics Committee in Health Sciences: Nursing, of the Nursing School of Coimbra (Resolution no. 596/05-2019). Participants signed the informed consent form.

Result

The sample consisted of 102 individuals who were in the second year of the program of a nursing school in the Central Region of Portugal. Average age was 20.19 years (SD= 3.81), and 20 (19.6%) were male and 82 (80.4%) female.

Risk perception of HIV infection was favorable and very favorable for more than 50% of the respondents and was not statistically different between the sexes (X^2= 2.213; GL= 4, p= 0.697).

Of the participants, 86.3% had never been tested for HIV and only 5.1% had done so in the last 12 months. The perception of personal risk for being infected was lower in the men (n=7; 35%) than the women (n= 36; 44.4%).

Moreover, 83.2% said they had already participated in HIV prevention education programs in high school, 89.2% reported having been "consumer" of messages disseminated by the media, while 63.4% recalled prevention campaigns disseminated by billboards or other forms of advertising. When asked about the latest preventive message campaigns associated with HIV, 86.1% did not recall any.

The overall result of the HIV knowledge test (Table 1) was 88.7%. The medical-scientific dimension presented lower results (77.8%). The mean result for the myths about transmission dimension was 82%, and in dimension relative to knowledge about high-risk behaviors and preventive behaviors the mean was 91.3%.

Table 1. Percentage of correct answers to items in the HIV/AIDS prevention knowledge subtest

Dimensions (overall average = 83.7%)	Correct answers in %
Medical-scientific knowledge	**m = 77.8**
1. AIDS means Acquired Immunodeficiency Syndrome	99.0
2. Today, most scientists believe that AIDS is caused by a virus called Human Immunodeficiency Virus	88.2
3. Most people who have AIDS are usually cured	97.1
4. A baby from an HIV-carrying mother can get AIDS	87.3
5. HIV circulates in the blood	96.1
6. Most people with HIV are sick with AIDS	62.7
8. HIV appears in semen	93.1
9. The number of men and women infected with HIV will likely be lower in coming years than today	33.3
10. AIDS decreases the body's ability to resist diseases	99.0
12. A negative test for HIV antibodies means the person is likely to have AIDS	93.1
15. If an HIV test is negative it means that the person has AIDS	96.1
16. People with AIDS can therefore contract other diseases	94.1
17. You can die of AIDS if you get the disease	36.3
20. People with AIDS get pneumonia more easily than the average person	93.1
26. Sheepskin condoms are better than latex condoms for HIV prevention	94.1
31. One positive HIV test is enough to make sure you are infected)	46.1
33. A vaccine has recently been developed that immunizes people against HIV	91.2
34. Even if someone looks healthy, an infected partner can transmit HIV	97.1
35. If you're really healthy, exercise can protect you from HIV infection	98.0
36. If the person you're having sex with has already tested negative for HIV, that means you're not infected.)	85.3
38. Better than using only the condom is using it with a spermicide	67.6
39. One can become infected with HIV, and then get AIDS through an injury or an open wound	37.3
41. If you have a *false positive* test for HIV, it means you are infected	81.4
Myths about transmission	m = 82
11. There are people who have been infected with HIV and got AIDS by sitting in public toilets	85.3
23. There are people who have been infected by HIV by swimming in a pool used by someone who had AIDS	96.1
25. There are people who have been infected with HIV and contracted AIDS because they kissed a person who was infected	74.5
27. Soon after being infected with HIV, it is customary for people to become very ill with AIDS	80.4
29. There are people who have been infected with HIV and contracted AIDS through insect bites	84.3
32. Pregnant women are protected from HIV	98.0
37. There are people who have been infected with HIV because they went to eat at a restaurant where one of the employees had AIDS.	97.1
43. One can become infected with HIV, and then get AIDS by donating blood	25.5
45. You can become infected with HIV while taking the HIV test	97.0
Knowledge about high-risk behaviors and preventive behaviors	**m = 91.3**
7. Sex workers have a low probability of being infected with HIV	98.0
13. If you have sex with only one person in a lifetime, you can still get HIV	96.1
14. Even though they may lie to you, it's always a good idea to ask the person you're having sex with about their sexual past	100
18. Men are more likely to be infected by HIV infection if they have sex with women than if they have sex with men	99.0
19. Condom use reduces the likelihood of being infected with HIV	98.0
21. Women are more likely to become infected with HIV if they have sex with a strictly heterosexual man than with a bisexual man	93.1
22. It is safe to have sex without a condom with a person who uses injectable drugs, as long as you do not inject yourself	100.0
24. Anyone, regardless of race, can be infected with HIV	98.0
28. Whether you get HIV depends more on whether you have safe sex than on the type of group you belong to	86.3
30. Is it safer not to have sex than having sex using a condom	54.9
40. There is no danger of being infected with HIV and contracting AIDS if you have oral sex without a condom	93.1
44. People who use alcohol and drugs such as marijuana, cocaine and "crack" are more likely not to practice safe sex	79.4

The results of the attitude toward condom use subscale showed that female students obtained greater mean results (M= 49.94; SD= 7.63), compared to male students (M= 47.50; SD= 9.83); however, this difference was not statistically significant (t= -1.20; p= 0.23). The over results of the Condom Embarrassment Scale showed higher values among female students (M= 38.96; SD= 10.61) compared to male students (M=35.63; SD= 12.72); however this difference was not statistically significant (t= -1.17; p= 0.24). Also on this scale, the differences between the sexes were significant in the subscale of condom acquisition embarrassment (t= - 2.08; p= 0.04), suggesting that young women were more embarrassed about obtaining them (Table 2).

Table 2. Student's t-test and the Mann Whitney U test of the results of Condom Use Embarrassment Scale by gender

Scale and subscales	m	SD	t	p-value
Total embarrassment				
Male (n = 19)	35.63	12.72	-1.17	0.24
Female (n = 75)	38.96	10.61		
Acquisition Embarrassment				
Male (n = 19)	18.21	8.60	- 2,08	0.04
Female (n = 76)	22.53	7.92		
Negotiation Embarrassment				
Male (n = 19)	7.58	2.87	- 1.20	0.23
Female (n = 77)	8.56	3.25		
Embarrassment Use			U	p-value
Male (n = 19)	9.84	4.27	541.50	0.06
Female (n = 78)	7.74	2.91		

Discussion

This study investigated issues related to knowledge about HIV, perception of individual risk of HIV, attitudes about condom use and embarrassment about obtaining, negotiating and using condoms among nursing students. Most participants were female, as is typical of this type of professional training program.

Nursing education represents a broad field of knowledge that interacts with various scientific domains. Even though the students had a considerable mastery of an array of scientific knowledge relative to health, this did not mean that their behaviors or knowledge about HIV were unequivocally correct. In this study, about a quarter of students said that "you can become infected with HIV and then get AIDS by donating blood". This result reveals beliefs and knowledge that goes against scientific knowledge, revealing the presence of erroneous ideas, resulting in unfounded fears. The same is true of knowledge related to correct condom use. It is known that the use of condoms, when correct and consistent, is effective in preventing HIV.[12] Therefore, prioritizing interventions aimed at populations that promote access to condoms lacks investment and assessment of knowledge about the topic. When asked about whether one can "die of AIDS if they get the disease", more than two-thirds said no. Deaths are not a result of AIDS in itself, but of the diseases or conditions that result of immunosuppression, which would not be present without the underlying disease.[13]

The importance of knowing the serological status of the population is essential. UNAIDS[14] predicted that by 2020, 90% of individuals who lived with the infection would know they were infected, 90% who knew they were infect would be in treatment, and 90% of those who were in treatment would have the infection under control. With these percentages, and according to the United Nations, it is predicted that by 2030, HIV/AIDS will be erradicated.[15] However, the motivation shown by the population to adopt preventive measures and to know their serological status does not seem to follow international recommendations.

In the present study, 86.3% had never been tested for HIV and only 5.1% had done so in the last 12 months. These low percentages are corroborated by other studies.[16] Additionally, the low perception of individual risk of contracting HIV infection ranged from 35% for males and 44.4% for females, making it a weak predictor of prevention and, consequently, a possible explanation for the fact that these students had not been tested for HIV, a result also found in other investigations.[16]

Involvement in prevention programs was a positive indicator of interest in HIV knowledge and the data suggested good adherence: 83.2% of the participants reported having participated in HIV/AIDS prevention education programs. However, these values do not necessarily imply effective changes in behavior. Most reported that they had been "consumers" of messages disseminated by the media, but did not remember the most recent HIV prevention campaigns, remembering billboard campaigns the most. In Portugal, since 2009, the law provides for the mandatory nature of sex education in primary and secondary Education.[17] Additionally, UNAIDS guidelines are followed by annual campaigns to commemorate World AIDS Day, and awareness-raising and prevention actions are being intensified throughout the country during academic holidays.

The results suggest that the students had a high level of knowledge in general; however, some of

their answers showed that they held misconceptions and demonstrated lack of knowledge, which is cause for concern when it comes to future health professionals. According to the literature, misconceptions associated with condom use, as well as lack of knowledge about transmission, enhance risk behaviors especially in women.[18]

The attitudes about condom use subscale revealed higher values for women compared to men, but with no statistical significance. In fact, Portuguese university students have reasonably positive attitudes towards the use of male condoms.[18] The results of the present study indicate the need for further investigations using longitudinal studies with a more significant sample. Research on the subject has been widely debated, showing that prevention programs should focus on changing attitudes among young men. This idea is supported by the fact that the use of male condoms is, above all, associated with the male sex. However, the recommendations require that strategies be developed to negotiate and promote condom use according to gender, in order to enhance its acceptability as a preventive behavior with one's partner.[19]

As to embarrassment about obtaining, negotiating and using condoms, it is known that more favorable attitudes are associated with lower levels of embarrassment related to obtaining condoms[20] In this study, the female students demonstrated significantly greater embarrassment about obtaining condoms than the male students; therefore, they take less initiative in obtaining them. Also, considering the total score of the Condom Embarrassment Scale, the women presented greater values, although without statistical significance. Limitations of the study include its sample size and the low representativity of the male sex.

Conclusion

Most students had a good perception of the risk of HIV infection, with no significant difference between genders. HIV serological testing is not yet a reality among students. Knowledge about HIV infection is acceptable or even, tendentially, good. However, there were false concepts regarding form of transmission and prevention. Their attitude toward condom use proved to be acceptable. On the other hand, the results regarding embarrassment about obtaining, negotiating and using condoms suggest more among women than men. Thus, the authors propose the implementation of educational programs aimed at changing behaviors in addition to acquiring knowledge.

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Collaborations

Oliveira ACGDPC, Camarneiro APF, Xavier BO, Silva MANCGMM, Simões IMH and Cardoso IMMM collaborated with the design of the study, data analysis and interpretation, writing of the article, critical review of relevant intellectual content, and approval of the final version to be published.

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