

SEXUAL INTERCOURSE AMONG SCHOOL ADOLESCENTS: PREVALENCE AND ASSOCIATION WITH SOCIODEMOGRAPHIC AND BEHAVIORAL FACTORS

Relação sexual entre adolescentes escolares: prevalência e associação com fatores sociodemográficos e comportamentais

Relaciones sexuales entre adolescentes escolares: prevalencia y asociación con factores sociodemográficos y conductuales

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How to quote this article:

Marquete VF, Tosta VG, Teston EF, *et al.* Sexual intercourse among school adolescents: prevalence and association with sociodemographic and behavioral factors. Rev Fun Care Online. 2021. Jan./Dec.; 13:1265-1270. DOI: <http://dx.doi.org/10.9789/2175-5361.rpcfo.v13.9678>

ABSTRACT

Objective: To identify the prevalence of sexual intercourse among schoolchildren in a southern Brazilian capital and its association with sociodemographic factors, health risk behaviors, sexual violence, health guidelines and self-image. **Method:** cross-sectional study using data from the 2015 National School Health Survey. The sample consisted of students enrolled in the 9th grade of Curitiba (n = 1,770). Descriptive and inferential statistics were performed. **Results:** the prevalence of sexual intercourse was ever 22.9%, being more frequent in male adolescents, aged 15 years and over, black, without internet access and who received guidance at school about sexual education, licit and illicit drugs, and engaged in fights. **Conclusion:** the prevalence of sexual intercourse ever in school adolescents was high and is associated with sociodemographic factors, risk behaviors and coexistence with situations of violence.

Descriptors: Sexual behavior, Adolescent, School health services, Adolescent behavior, Risk factors.

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RESUMO

Objetivo: Identificar a prevalência de relação sexual em adolescentes escolares de uma capital no sul do Brasil e sua associação com fatores sociodemográficos, comportamentos de risco a saúde, violência sexual, orientações de saúde e autoimagem. **Método:** estudo transversal que utilizou dados da Pesquisa Nacional de Saúde do Escolar de 2015. A amostra foi composta por escolares matriculados no 9º ano do ensino fundamental de Curitiba (n= 1.770). Realizou-se estatística descritiva e inferencial. **Resultados:** a prevalência de relação sexual alguma vez foi de 22,9%, sendo mais frequente em adolescentes do sexo masculino, com 15 anos ou mais, de cor preta, sem acesso à internet e que recebeu orientações na escola sobre educação sexual, utilizavam drogas lícitas e ilícitas, e se envolviam em brigas. **Conclusão:** a prevalência da relação sexual alguma vez nos adolescentes escolares foi elevada e está associada a fatores sociodemográficos, comportamentos de risco e convivência com situações de violência.

Descritores: Comportamento sexual, Adolescente, Serviços de saúde escolar, Comportamento do adolescente, Fatores de risco.

RESUMEN

Objetivo: Identificar la prevalencia de las relaciones sexuales entre escolares en una capital del sur de Brasil y su asociación con factores sociodemográficos, conductas de riesgo para la salud, violencia sexual, pautas de salud y autoimagen. **Método:** estudio transversal con datos de la Encuesta nacional de salud escolar 2015. La muestra consistió en estudiantes matriculados en el noveno grado de Curitiba (n = 1.770). Se realizó estadística descriptiva e inferencial. **Resultados:** la prevalencia de las relaciones sexuales fue siempre del 22,9%, siendo más frecuente en adolescentes varones, de 15 años o más, negros, sin acceso a internet y que recibieron orientación en la escuela sobre educación sexual, drogas lícitas e ilícitas, y participan en peleas. **Conclusión:** la prevalencia de las relaciones sexuales en adolescentes escolares fue alta y está asociada con factores sociodemográficos, conductas de riesgo y convivencia con situaciones de violencia.

Descriptores: Conducta sexual, Adolescente, Servicios de salud escolar, Conducta del adolescente, Factores de Riesgo.

INTRODUCTION

Adolescence is a period of biological and physiological change, marked by the transition from childhood to adulthood.¹ During adolescence, young people investigate their identity, understand, and intensely experience their sexuality, and can initiate sexual practices, which enables them to know their tastes and understand their own sexual identity.²

Faced with these changes, adolescents become more vulnerable to engaging in risky sexual behaviors, such as early, unprotected sexual intercourse, casual sex, and multiple partners.³ These behaviors increase the chance of exposure to the risk of unwanted or untimely pregnancy, as well as the occurrence of sexually transmitted infections, generating permanent economic, social, psychological, and physical problems.⁴

A study conducted in Goiás points out that the prevalence of sexual relations in adolescents is associated with the consumption of tobacco, alcohol and other drugs and situations of family and extra-family violence. This

result led the authors to recommend the implementation of health promotion and disease prevention strategies among this population, with emphasis on factors associated with sexual risk behaviors.⁵

It is important to note that family interactions are critical for adolescents to develop sexual knowledge.⁶⁻⁷ However, parents have fears and difficulties in addressing sexuality and sometimes do so in a superficial way, and health services, social support, and school, for example, need to address adolescent sex education and provide guidance.⁸

The Programa Saúde na Escola (PSE) favors the development of actions of promotion, prevention, attention and assistance, to be developed articulately between the education network and basic health care, according to the guidelines and principles of the Sistema Único de Saúde (SUS). One of these actions is the promotion of sexual and reproductive health.⁹

The importance of knowing the profile and prevalence of sexual relations in school adolescents is highlighted in order to develop actions to promote health and prevent diseases directed to the needs of adolescents. In this context, we question the socio-demographic and behavioral factors associated with sexual practices in school adolescents? This is how the objective of the present study was defined: to identify the prevalence of sexual intercourse in school adolescents from a southern Brazilian capital and its association with socio-demographic and behavioral factors.

METHODS

A cross-sectional study developed with data from the Pesquisa Nacional de Saúde do Escolar (PeNSE), which is coordinated by the Ministry of Health and executed by the Brazilian Institute of Geography and Statistics.¹⁰ Data from 2015 were analyzed for adolescents in the municipality of Curitiba, capital of the state of Paraná. The methodology and the main results of PeNSE are published.¹⁰ In PeNSE The sample was composed of students enrolled in the 9th grade of elementary school, in public and private schools located in urban and rural areas, sized to estimate population parameters (proportions or prevalence) in 26 Brazilian capitals and the Federal District.¹⁰ All students in the sampled classes present at the time of data collection were invited to participate in the survey.

In the city of Curitiba, participated in PeNSE 2015, 42 schools and 68 classes, totaling 2,092 students enrolled in 9th grade, aged between 12 and 19 years.

The prevalence of sexual intercourse was obtained through the question: “Have you ever had sexual intercourse (sex)?”, with answer categories Yes and No. For this study, this question acted as a dependent variable in the association analyses. The independent variables were socio-demographic data, family context, risk behaviors, violence, and body self-image.

We verified association with the variables guidance in school on how to get condoms free, and guidance on sexually transmitted infections, with the adolescents who answered the question: “The last time you had sexual intercourse (sex), did you or your partner use a condom?”.

The data were compiled in Microsoft Office Excel® 2013 software and organized in tables with absolute and relative frequencies, in the period of August and September 2018. The analyses were performed in the R® software, version 3.5.1, from the calculation of the confidence interval of the analyzed variables, through the binominal test. The association between sexual intercourse and the other variables was verified in bivariate analysis, using the chi-square test. The odds ratio (OR) was adopted as an association measure. Spearman’s correlation was used for the analysis of the numerical variables, since the data do not follow normal distribution. For all the analyses made it was considered the respective 95% confidence interval, considering the significance level of 5%.

The study was approved by the Comissão Nacional de Ética em Pesquisa (CONEP), linked to the Conselho Nacional de Saúde (CNS), which regulates and approves health research involving human beings, through opinion No. 1,006,467 of March 30, 2015. Since it is secondary data of free access on the IBGE website and in the public domain, and does not allow the identification of research participants, the study is in accordance with resolution 510/2016 of the CNS and does not need the appreciation and approval of the ethics committee.

RESULTS

On the day of the survey, 1,770 students were present and answered the questionnaire and 1,759 answered the question: “Have you ever had sexual intercourse (sex)?”

The prevalence of sexual intercourse was ever 406 (22.9%) (95% CI= 21.0-25.0), with 39 (9.6%) having already been forced to do so. **Table 1** presents the prevalence according to sociodemographic variables.

Table 1- Prevalence of sexual intercourse ever in life according to sociodemographic variables, in adolescents in the city of *Pesquisa Nacional de Saúde Escolar (PeNSE)*. Curitiba, PR, Brazil, 2015

Variables	Total n (%)	Prevalence of sexual intercourse % (IC 95%)	OR (IC95%)	p
Sex (n=1759)				
Female	870 (49,5)	17,7 (15,3- 20,4)	1	
Male	889 (50,5)	28,5 (25,5-31,6)	1,84 (1,47-2,32)	<0,001
Age (n=1759)				
≤13 years	553 (31,5)	7,2 (5,2- 9,7)	0,32 (0,22-0,45)	<0,001
14 years	805 (45,8)	19,8 (17,1-22,7)	1	
≥15 years	401 (22,7)	51,6(46,6- 56,6)	4,34 (3,34- 5,64)	<0,001
Color (n=1756)				
White	1153 (65,6)	21,4 (19,1- 23,9)	1	
Black	135 (7,7)	33,3 (25,5- 42,0)	1,83 (1,24-2,68)	0,002
Brown	324 (18,4)	25,3 (20,7- 30,4)	1,24 (0,93-1,65)	0,142
Yellow	97 (5,5)	18,6 (11,4- 27,7)	0,84 (0,48- 1,39)	0,513
Indigenous	47 (2,7)	27,7 (15,6- 42,6)	1,40 (0,70- 2,64)	0,311
Mother's education (n=1390)				
Illiterate	44 (3,2)	40,9 (26,3- 56,8)	2,08 (1,09-3,92)	0,023
<9 years	310 (22,3)	33,5 (28,4-39,1)	1,52 (1,11-2,09)	0,001
9-11 years	457 (32,9)	24,9 (21,0- 29,2)	1	
≥12 years	579 (41,7)	14,5 (11,7- 17,6)	0,51(0,37-0,70)	<0,001

She lives with her mother (n=1757)				
Yes	1604 (91,3)	22,1 (20,1- 24,2)	0,57 (0,40-0,82)	0,002
No	153 (8,7)	33,3 (25,9- 41,4)	1	
She lives with her father (n=1759)				
Yes	1169 (66,5)	20,0 (17,8- 22,4)	0,6 (0,48- 0,76)	<0,001
No	590 (33,5)	29,2 (25,5- 33,0)	1	

Source: PeNSE, 2015.

The results show that male individuals present (84%) (p<0.001) a higher chance of having had sexual intercourse than female individuals. Taking adolescents aged 14 as a reference, it was found that those aged 13 and under have (68%) less chance of having sexual intercourse and those aged 15 and over have (334%) more chance of having sexual intercourse. Black individuals are (83%) more likely to have sex than white individuals (**Table 1**).

The low maternal schooling (up to eight years of study) was associated with the prevalence of sexual intercourse in adolescents, with children of illiterate mothers; and with schooling of less than nine years have, respectively, (108%) and (52%) more chance of having already had sexual intercourse. The maternal schooling equal or superior to 12 years of study had a protective effect, being (49%) less chance of having had sexual intercourse when compared to the children of mothers with nine to 11 years of study. The prevalence of those who had already had sexual intercourse was lower among schoolchildren who lived with their mother or father, presenting, respectively, (43%) and (40%) less chances of having had sexual intercourse when compared to those who did not live with their mother or father (**Table 1**).

Table 2 shows the relationship between having had sexual intercourse and variables related to health risk behaviors and living with violence where a significant association is observed with: cigarette use, consumption of alcoholic beverages, drugs, involvement in fights with a firearm and a white weapon.

Table 2- Frequency distribution and prevalence of sexual intercourse according to health risk behaviors, violence, and body self-image in adolescents in the city of *Curitiba. Pesquisa Nacional de Saúde Escolar (PeNSE)*. Curitiba, PR, Brazil, 2015

Variables	Prevalence of sexual intercourse % (IC 95%)	OR (IC95%)	p
Cigarette use (n=1755)			
Yes	53,1 (48,1-58,0)	6,9 (5,40- 8,87-)	<0,001
No	14,1 (12,3- 16,0)	1	
Alcohol consumption (n=1758)			
Yes	35,7 (32,7- 38,8)	7,8 (5,74- 10,74)	<0,001
No	6,5 (4,9- 8,5)	1	
Drug consumption(n=1753)			
Yes	67,3 (61,2- 73,0)	11,3 (8,42-15,22)	<0,001
No	15,4 (13,6- 17,4)	1	
Involvement in firearm fights (n=1750)			
Yes	69,8 (59,6- 78,7)	9,1 (5,85- 14,49)	<0,001
No	20,3 (18,3- 22,3)	1	
Involvement in fights with a white gun (n= 1745)			
Yes	64,9 (56,2- 73,0)	7,7 (5,29- 11,25)	<0,001
No	19,4 (17,5- 21,4)	1	
Body self-image evaluation(n= 1743)			
Normal	23,1 (20,4- 26,0)	1	
Thin or very thin	25,1 (21,0- 30,0)	1,1 (0,85-1,47)	0,419
Fat or very fat	21,4 (17,6- 25,6)	0,91 (0,69-1,20)	0,496
Internet access (n=1759)			
Yes	22,4 (20,4- 24,5)	0,61 (0,42-0,90)	0,01
No	32,1 (24,2-40,8)	1	
Already suffered bullying (n=1730)			
Yes	23,1 (20,3- 26,1)	1,1 (0,85- 1,33)	0,6515
No	22,1 (19,4- 25,0)	1	
Orientation on AIDS or other STIs at school (n=1646)			
Yes	23,0 (20,8- 25,2)	0,53 (0,38- 0,76)	<0,001

No	26,6 (20,7- 33,2)	1	
Studying in full regime (n=1738)			
Yes	24,2 (19,4- 29,7)	1,1 (0,79-1,43)	0,655
No	23,0 (21,0- 25,4)	1	

Source: PeNSE, 2015.

Teenagers with Internet access are (39%) less likely to have sex than those who do not. Receiving guidance on AIDS or other sexually transmitted infections (STI) at school has protective effect, since adolescents with access to this information were (47%) less likely to have had sexual intercourse (**Table 2**).

The use of condoms in the last sexual intercourse was not associated to the guidance received in school on how to get the condom for free (p= 0.8598) and on STI and AIDS (p= 0.0740). However, most 269 (70.78%) reported having used a condom at the last sexual intercourse and received guidance on condoms 297 (77.14%) and on AIDS and STI, 331 (85.97%).

The direct and significant correlation between age of first sexual intercourse and the age at which the beginning of risk behaviors occurred is noteworthy: alcohol, drug and tobacco use (**Table 3**).

Table 3- Correlation between the variables of age of risk behaviors and age of first sexual intercourse in adolescents in the city of Curitiba. Pesquisa Nacional de Saúde Escolar (PeNSE). Curitiba, PR, Brazil, 2015

Variables	Correlation Coefficient (rho)	P
Age you were when you had your first sexual intercourse with the age you were when you had your first alcoholic drink	0,3425	<0,001
Age you were when you first used drugs at the age you were when you first had sexual intercourse	0,4236	<0,001
Age you were when you first tried smoking at the age of first sexual intercourse	0,3950	<0,001

Source: PeNSE, 2015.

DISCUSSION

The prevalence of having had sexual intercourse in school adolescents in Curitiba is close, but lower than that found in Goiânia (26.5%).⁵ It is worth noting that sexual behavior is associated with other behaviors established in this phase of life, such as the consumption of tobacco, alcohol, drugs and living with violence.⁵

Male adolescents aged 15 and older, black, were found to be more likely to have sexual intercourse, which corroborated with a study of Chinese high school students whose older boys had the intention to begin sexual practices earlier than girls.¹¹ Similarly, a study of African American adolescents found that they were more likely to have sexual intercourse than adolescents from other ethnic groups.¹² In addition, economic disadvantage was identified as a risk factor for the development of sexual practices.¹¹

Among the factors that influence adolescent sexual behavior is the family structure, which includes the quality of communication established between parents and adolescents about courtship and sex, foreseeing sexual behavior.¹² In this regard, a good family relationship between adolescents and their parents, especially between

mothers and daughters, can be a protective factor for early sexual initiation,¹³ since it allows for the strengthening of dialogue, the clarification of doubts, and the opportunity for conscious choices.

Thus, it is justified to associate the years of study of mothers with the sexual practices of adolescents, considering that the greater the study of mothers, the greater the protective effect. It is understood that the higher the schooling, the more orientation and instructions mothers will give their children about sexual behavior. Parents need to provide adequate guidance on sexuality because it is within the family that teachings, beliefs, values, and behaviors are structured.⁷

Allied to this, health professionals can play the role of facilitators of these relationships, besides guiding both parents and adolescents on the promotion of healthy and conscious sexual behaviors.¹³⁻¹⁴ It is emphasized that the environment in which the adolescent is inserted interferes directly in the sexual behavior and that, in a certain way, it justifies the fact that the consumption of tobacco, alcohol, drugs and violence, are associated with a greater prevalence of unprotected sexual practices.⁵

A study conducted in Canada of 1,940 sexually active adolescents found that child maltreatment (sexual abuse, physical abuse, neglect, and witnessing interpersonal violence) was associated with risky sexual behaviors characterized by a greater number of sexual partners, having casual sex, and being older at the first consensual sexual intercourse.¹⁵

It is verified that the health risk behaviors of adolescents are linked to sex, color, family structure, absence or inadequacy in communication between parents and children, or performed inadequately, which may expose them to the risk of morbidity, unnecessary or early mortality, and social problems (criminality, poverty and academic failure).¹⁶

Sexual and reproductive health programs at school are considered as an approach to reducing sexual risk behavior among adolescents,¹⁷ because access to information helps individuals develop awareness of the acts adopted. In this study, it was observed that offering guidance on AIDS and STD at school had protective effect to the practice of safe sexual intercourse. Therefore, it reiterates the need for health services to promote the empowerment of adolescents in decision-making related to health, and it is essential for them to meet the needs of adolescents, by providing guidance on sexual and reproductive health, including the options of condoms and contraceptives.¹⁷ Therefore, it suggests that professionals from different fields use attractive strategies and different modalities, in order to facilitate the adhesion of young people to awareness actions, such as the development of groups in social networks, execution of dynamics, among others.

However, just the execution and existence of school health programs are not enough to interfere with adolescent

sexual behavior. A study conducted in Tanzania found that the control of perceived behavior and positive attitudes predict condom use, but empowerment presupposes the reported use of condoms, and the empowerment and positive attitude toward condom use has shown significant association with actual condom use.¹⁷ Thus, sexual promotion interventions should simultaneously address the ecological and socio-cognitive determinants of sexual practices, so that safe sexual behaviors are, in fact, practiced by adolescents.¹⁸

Therefore, adolescents have some peculiarities, such as believing that the future consequences of inappropriate practices in the present are invulnerable; besides wanting to live in the present and not worry about the future and want to practice autonomy in confrontation with teachers and parents.¹⁹

In the present study, a direct correlation between the age of the first sexual relation and the beginning of risk behaviors, such as the use of alcohol, drugs and tobacco, was evidenced, which can be due to the rebellious vulnerability condition of this phase of adolescence and the desire to want to experience several risk conditions. However, the social context, family structure, access to information and the environment that the individual experiences cannot be disregarded, because a study conducted in a municipality of the state of Paraná with 119 adolescents found that all these factors are associated with the prevalence of sexual intercourse in adolescence.²⁰

CONCLUSIONS

The prevalence of sexual intercourse in school adolescents was high and was associated with some socio-demographic factors such as: low schooling of the mother, being male, black and over 15 years old, and also presenting risk behaviors (consumption of alcohol, drugs, tobacco and experiencing situations of violence).

It is considered as a limitation of the study, the cutout performed for only one municipality in Brazil, thus not allowing generalizations of the results. However, data from the national survey were used, the instrument of which is composed of validated questions that allow the identification of risk factors and protection for the health of schoolchildren, and also the sample size, which allows inferences to be made to schoolchildren in the capital of the State of Paraná.

These results reinforce the need for health promotion and disease prevention strategies, targeted at adolescents and especially those with the above profile. Therefore, integrated health education and intervention research actions are important, aiming at preventing the use of alcohol, tobacco and other drugs, considering the context in which the individual is inserted, mainly the family structure. Besides offering access to health information, demonstrating the harm that risk behaviors can provide

to health and promoting empowerment, through positive attitudes for the actual use of condoms, can be a strategy to dialogue with adolescents. It is also important to make the family aware of the importance of guiding sexual behavior, since parents have a fundamental role in promoting healthy sexual behavior in their children.

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Received on: 13/01/2020

Required Reviews: 18/06/2020

Approved on: 21/10/2020

Published on: 31/08/2021

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The authors claim to have no conflict of interest.