Journal of Nursing
Revista de Enfermagem
UFPE On Line
ISSN: 1981-8963

ORIGINAL ARTICLE

ANALYSIS OF RISK BEHAVIOR AMONG SCHOOL ADOLESCENTS

ANÁLISE DOS COMPORTAMENTOS DE RISCO ENTRE ADOLESCENTES ESCOLARES

ANÁLISIS DE LOS COMPORTAMIENTOS DE RIESGO ENTRE ADOLESCENTES ESCOLARES

Valdeci Ferreira da Ponte Neto[1], Manuela de Mendonça Figueirêdo Coelho[2], Karla Côrrea Lima Miranda[3], Riksberg Leite Cabral[4], Sara Taciana Firmino Bezerra[5], Paulo César de Almeida[6]

ABSTRACT

Objective: to evaluate risk behaviors among adolescent students. ***Method:*** descriptive, quantitative study with 219 adolescent students in public school in Fortaleza, Brazil. A structured questionnaire was applied from the translation of the National Youth Risk Behavior Survey. Data were analyzed using Epi Info 6.04 and presented in tables, interpreted from the verification of the relationship between the variables, using chi-square test. The project was approved by the Research Ethics Committee, CAAE 04927912.5.0000.5051. ***Results:*** among the associations being studied, there were the use of alcohol and early sexual activity among young people; females with a sedentary lifestyle and not using condoms; males' smokers and early sexual life. ***Conclusion:*** the main risk behaviors presented by adolescent students were always present among the participants with higher or lower prevalence. ***Descriptors:*** Adolescent Behavior; Adolescents; Risk.

RESUMO

Objetivo*:** avaliar comportamentos de risco entre adolescentes escolares. ***Método: estudo descritivo, quantitativo, realizado com 219 adolescentes escolares em escola pública de Fortaleza-CE, Brasil. Aplicou-se questionário estruturado a partir da tradução do *National Youth Risk Behavior Survey*. Os dados foram analisados no programa Epi Info 6.04, apresentados em tabelas e interpretados a partir da verificação das relações existentes entre as variáveis, aplicando o teste do qui-quadrado. O projeto foi aprovado pelo Comitê de Ética em Pesquisa, CAAE 04927912.5.0000.5051. ***Resultados*:** entre as associações estudadas, chama-se atenção para o uso de bebidas alcoólicas e início da atividade sexual entre os mais jovens; o sexo feminino com o sedentarismo e não uso do preservativo; o sexo masculino com tabagismo e início da vida sexual. ***Conclusão*:** os principais comportamentos de risco apresentados por adolescentes escolares estiveram sempre presentes entre os participantes com maior ou menor prevalência. ***Descritores*:** Comportamento do Adolescente; Adolescente; Risco.

RESUMEN

Objetivo*:** evaluar comportamientos de riesgo entre adolescentes escolares. ***Método: estudio descriptivo, cuantitativo, realizado con 219 adolescentes escolares en una escuela pública de Fortaleza-CE, Brasil. Se aplicó um cuestionário estructurado a partir de la traducción del *National Youth Risk Behavior Survey*. Los datos fueron analizados en el programa Epi Info 6.04 y presentados en tablas, interpretados a partir de la verificación de las relaciones existentes entre las variables, aplicando el test de Qui-cuadrado. El proyecto fue aprobado por el Comité de Ética en Investigación, CAAE 04927912.5.0000.5051. ***Resultados*:** entre las asociaciones estudiadas, llama la atención el uso de bebidas alcohólicas e inicio de la actividad sexual entre los más jóvenes; el sexo femenino con sedentarismo y no uso del preservativo; el sexo masculino con tabaquismo e inicio de la vida sexual. ***Conclusión*:** los principales comportamientos de riesgo presentados por adolescentes escolares estuvieron siempre presentes entre los participantes con mayor o menor prevalencia. ***Descriptores*:** Comportamiento del Adolescente; Adolescente; Riesgo.

[1]Nurse, Professor, PRONATEC - Faculdade Metropolitana da Grande Fortaleza. Fortaleza (CE), Brazil. E-mail: netopontes.enf@gmail.com; [2]Nurse, Master degree Professor, Faculdade Metropolitana da Grande Fortaleza, Ph.D., Graduate Program in Nursing and Health Clinical Care, State University of Ceará. Fortaleza (CE), Brazil. E-mail: manumfc2003@yahoo.com.br; [3]Ph.D. Professor in Nursing, Nursing Graduation and Graduate Program in Nursing and Health Clinical Care, Federal University of Ceará/UEC. Fortaleza (CE), Brazil. E-mail: kfor026@terra.com.br; [4]Nurse, Master degree Professor in Family Health, Faculdade Metropolitana da Grande Fortaleza. Fortaleza (CE), Brazil. E-mail: rikcabral@yahoo.com.br; [5]Master degree in Nursing, Ph.D., Graduate Program in Nursing, Faculdade Metropolitana da Grande Fortaleza. Fortaleza (CE), Brazil. E-mail: saratfb@yahoo.com.br; [6]Estatistic, Ph.D. Professor, Nursing Graduation/ Graduate Program in Nursing and Health Clinical Care, State University of Ceará/UEC. Fortaleza (CE), Brazil. E-mail: pc49almeida@gmail.com

INTRODUCTION

Behavioral changes change the living standard of the population and are directly influenced by socioeconomic, cultural and environmental standards, which are set by the population at a given time and space, characterizing a constant cycle of social changes.[1]

Several needs arise from different experiences during adolescence that although are common to most individuals, are independent of only organic or economic issues, since the psychosocial context in which the adolescent is, also focuses on attitudes and decision making (behaviors), which makes the subject of comprehensive adolescent needs and requiring less standardized services and greater specificities.[2]

The behavior comes from the external environment in which the individual is inserted and, therefore, can be explained without investigating inner mental or psychological schemes.[3] Despite this concept, the risk behavior should not be subdued because leads the individual to expose the factors and ways that can lead an individual to a greater possibility of developing diseases and problems.4

Research in Brazil and abroad related to school behavior, show excesses in the behavior of adolescents, confirming the need for studies on this subject. The study from the Center for Disease Control and Prevention (CDC) cites more frequent risk behaviors among adolescents: Insufficient levels of physical activity; bad eating habits; smoking; abuse of alcohol and illicit drugs; violence; and sexual behavior risk.[5-6]

In Brazil, only the questionnaire developed by the Center for Disease Control and Prevention (CDC) for adolescents was translated and adapted to the Brazilian reality to investigate their risk behaviors.[7]

Data from the National School of Health, in partnership with the Brazilian Institute of Geography and Statistics, revealed that more than half of students from public and private schools attending the 9th grade of elementary school in Brazilian capitals and the Federal District are inactive or insufficiently active when it comes to sports practices, that is, 56.9% of adolescents do not practice 300 minutes or more of weekly physical activities. However, 24.2% have tried cigarette, while 22.1% suffered some episode of alcohol intoxication. During sexual intercourse, about 24.1% did not use a condom in the last relation.[8]

The data in this study raises the need to apply a research to investigate risk behaviors among adolescents in different regions of Brazil. This study aimed to evaluate risk behaviors among adolescents' students in public schools.

Collaborations of this type of study beyond the scope of the professional actions, since they act directly across the social environment, promoting improvements in assistance to health. It is reiterated that improving the quality of life is mandatory reflection of better care and therefore this means less illnesses, public spending on treatment of chronic diseases and accidents, with early pregnancy that results in prenatal risk and treatment users of licit or illicit drugs that, in turn, are adolescents who are exposed daily to violence.

The application of this research will produce knowledge that will subsidize actions for health and education of professionals and non-governmental organizations to provide data on the profile of the risk behaviors among adolescents, directing the prevention and education related to these behaviors. Another significant contribution of the results of this study may be the possibility of such findings guiding the development of programs and health promotion policies to adolescents.

OBJECTIVE

- To evaluate risk behaviors among adolescent students.

METHOD

Article elaborated from the Monograph << Reaching adolescence: analysis of risk behaviors among adolescents from a public school in Fortaleza-CE >> submitted to the Graduate Program of the Faculdade Metropolitana da Grande Fortaleza. Fortaleza, CE, Brazil. 2012.

Descriptive study, quantitative approach, held at the state school of vocational education in Fortaleza, Ceará, Brazil. The school had 506 students enrolled between the first, second and third year of high school being the population studied. The sample size was defined based on a finite universe, taking the number of 506 adolescents enrolled in 2012 in high school.

Studies show that the reliability is lower when the respondent is under 14 years old.[9] Thus, the study included students between 14 and 18 years old. To calculate the sample confidence interval of 95% (Za=1.96) was delimited and a sampling error of 5% (E=0.05), determined in 219 adolescents.

The study included students who were duly enrolled at the institution. Absent students of the classes were excluded during the study period for reasons such as: licenses of any kind, maternity, medical certificates, personal travel or on behalf of the school; as well as students with special needs (student who needed Ledor, Libra Interpreter, Auxiliary for transcription, Support and Extended Support of Braille). It should be noted that at no time, students with special needs were excluded because of their differences, but because of lack of preparation (technical and financial) of the researchers working with such students.

A structured questionnaire was applied, created from the reading and translation of the National Youth Risk Behavior Survey, research annually applied in the United States by the Centers for Disease Control and Prevention.[10]

The instrument consisted of the following sections: demographic information (age, gender, race, grade); and risk behaviors (insufficient practice of physical activity, poor eating habits, smoking, alcohol abuse, illicit drug use, physical violence and sexual risk behavior).

The research data were organized in Microsoft Office Excel 2010 and analyzed using Epi Info 6.04. The data are presented in tables. The interpretation of the data was carried out from verification of the relationship between the variables, independent and dependent, and then the relation of the meaning of the material presented on the theme and objectives of the research, applying the chi-square test (represented in the tables by the p value) to analyze the differences and the existing statistical significance of the variables. It was considered value $p \leq 0.05$ to reject the null hypothesis.

In addition, there were comparative interpretations, using the results found in the research with those found in previous studies of the same nature. The project was approved by the Research Ethics Committee, as opinion 136,057and CAAE 04927912.5.0000.5051. The ethical aspects of the research involving human being were respected, guided by Resolution 466/12 of the National Health Council.[11]

Since this is a study about adolescents, those who could not respond civilly by themselves, that is, who had not yet reached the age of majority or been legally anticipated, had their conditioned participation in the search for the authorization of parents/guardians by signing the Consent Term.

RESULTS

The frequency that the dependent variables (risk behaviors) happen in the independent variables (demographics) was discussed.

Table 1. Distribution of risk behaviors frequency, according to age. Fortaleza, CE, Brazil, 2012.

Variables	Age		
	14-16 n (%)	17-18 n (%)	P value
Practice physical activity			0,307
Yes	67(50,0)	36(42,9)	
No	67(50,0)	48(57,1)	
Eat fruits/vegetables			0,433
Yes	112(83,0)	73(86,9)	
No	23(17,0)	11(13,1)	
Smoked cigarettes			0,410
Yes	24(18,0)	19(22,6)	
No	109(82,0)	65(77,4)	
Consumed alcohol			0,015
Yes	62(46,3)	53(63,1)	
No	72(53,7)	31(36,9)	
Used illicit drugs			0,560
Yes	7(5,2)	6(7,1)	
No	127(94,8)	78(92,9)	
Participated of physical fights			0,156
Yes	50(37,3)	23(27,4)	
No	84(62,7)	61(71,6)	
Had sexual intercourse			0,027
Yes	29(22,0)	30(35,7)	
No	103(78,0)	54(64,3)	
Use condoms			0,059
Never/rarely	9(32,1)	10(33,3)	
Always	19(67,9)	20(66,4)	

Before the frequency of risk behaviors among adolescents of different age groups, there was a significant association (p=0.015) among adolescents 17-18 years old who have consumed alcohol (63%), while 46% of adolescents aged between 14 and 16 years old reported having consumed alcohol.

Sexual initiation also showed a statistically significant association (p=0.027) among adolescents 17-18 years old, 35.7% of these reported that they had sexual intercourse, while 22% of adolescents aged 14 to 16 years old said they had sexual intercourse.

Among students aged 14-16 years old (n=135), the most frequent risk behaviors were related to low fruit/vegetables consumption, in which 17% (n=23) reported not eating such foods. Another behavior that showed frequent in this age group was the participation in physical fight, with 37.3% (n=50) claiming to have participated in physical fighting inside or outside the school, although there was no statistically significant association.

Adolescents between 17 and 18 years old (n=84) had a higher frequency, but no positive association in not practicing physical activity (57.1%; p=0.307) and cigarette smoking (22.6%; p=0.410).

When asked about the frequency of condom use, 33.3% of older adolescents confirmed that never/rarely used condoms, and younger 32.1% said they also used not to use condoms, with great approach with significant association (p=0.059).

The difference in the frequency of drug use among students 14-16 years old (5.2%) and those aged 17 to 18 years old (7.1%) was low and the value of p=0.560 found that on adolescents of this study there was no significant association.

Table 2. Distribution of risk behaviors frequency, according to gender. Fortaleza, CE, Brasil, 2012.

Variables	Gender		
	Male n (%)	Female n (%)	P value
Practice physical activity			0,013
Yes	52(57,1)	51(40,2)	
No	39(42,9)	76(59,8)	
Eat fruits/vegetables			0,026
Yes	71(78,0)	114(89,1)	
No	20(22,0)	14(10,9)	
Smoked cigarettes			0,039
Yes	24(26,4)	19(15,1)	
No	67(73,6)	107(84,9)	
Consumed alcohol			0,784
Yes	49(53,8)	66(52,0)	
No	42(46,2)	61(48,0)	
Used illicit drugs			0,739
Yes	6(6,6)	7(5,5)	
No	85(93,4)	120(94,5)	
Participated of physical fights			<0,001
Yes	47(51,6)	26(20,5)	
No	44(48,4)	101(79,5)	
Had sexual intercourse			<0,001
Yes	36(40,0)	23(18,3)	
No	54(60,0)	103(81,7)	
Use condoms			<0,001
Never/rarely	8(22,9)	11(47,8)	
Always	27(77,1)	12(52,2)	

In Table 2, which distributes the frequency of risk behaviors according to gender, alcohol and illicit drugs showed no statistically significant association.

It was noticed that the frequency that adolescents of different genres consumed alcohol or illicit drug were near, 53.8% of male students reported having used alcohol and 6.6% of them used illicit drugs, while females reached 52% for alcohol and 5.5% for the use of illicit drugs.

A significant association (p=0.013) between no practicing physical activity and female adolescents (59.8%), and in male adolescents this percentage was 42.9%.

Other risk behaviors that were significantly associated with female gender was the low frequency of condom use (p<0.001), 47.8% of the girls reported never/rarely use condoms during sex, among 22.9% male adolescents reporting not using condoms.

When the subject was the fruit/vegetable consumption, it was noted a significant association (p=0.026) with male adolescents, where 22% of them said they did not eat fruit/vegetables and 10.9% of female

adolescents reported not consuming such foods.

Regarding to males, they showed statistically association with tobacco use (p<0.039) and participation in physical fight at least once in life, inside school or outside, showing that adolescents engage in complex risk factors at this stage of life.

About two in every 10 adolescents (16.5%) reported involvement in fights, more frequent practice among boys compared to girls. Other risk behaviors that maintained a positive association with the male was the start of sexual activity (p<0.001), 40% reported having sexual activity, while 18.3% of the female adolescents reported had sexual intercourse.

The data indicate that the male is associated with risk behaviors of low fruit/vegetables consumption; cigarette smoking; involvement in fights; and beginning of early sexual life. On the other hand, the female is associated with not practice of physical activity and sexual risk behavior.

Table 3. Distribution of risk behavior frequency, according to education. Fortaleza, CE, Brazil, 2012.

Variables	Education			
	1° grade of High school* n (%)	2° grade of High school* n (%)	3° grade of High school* n (%)	P value
Practice physical activity				0,171
Yes	52(51,5)	34(49,3)	17(35,4)	
No	49(48,5)	35(50,7)	31(64,6)	
Eat fruits/vegetables				0,023
Yes	81(80,2)	66(94,3)	38(9,2)	
No	20(19,8)	4(5,7)	10(20,8)	
Smoked cigarettes				0,492
Yes	20(19,8)	16(23,5)	7(14,6)	
No	81(80,2)	52(76,5)	41(85,4)	
Consumed alcohol				0,232
Yes	47(46,5)	40(58,0)	28(58,3)	
No	54(53,5)	29(42,0)	20(41,7)	
Used illicit drugs				0,787
Yes	47(46,5)	19(27,5)	14(29,2)	
No	95(94,1)	64(92,8)	46(95,8)	
Participated of physical fights				0,268
Yes	40(39,6)	19(27,5)	14(29,2)	
No	61(60,4)	50(72,5)	34(70,8)	
Had sexual intercourse				0,442
Yes	31(31,0)	15(22,1)	13(27,1)	
No	69(69,0)	53(77,9)	35(72,9)	
Use condoms				0,527
Never/rarely	10(32,3)	6(42,9)	3(23,1)	
Always	21(67,7)	8(57,1)	10(76,9)	

According to Table 3, the risk behavior that showed a statistically significant association was not eating fruit/vegetables (p=0.023), in which 20.8% of adolescents of the 3rd grade of high school reported not eating fruit/vegetables, followed by students from the 1st grade of high school (19.8%) and the 2nd grade of high school (5.7%).

In this way, the school crossing data with risk behaviors showed little statistically significant association. Therefore, it was noticed that the risk behaviors are independent of education.

The students of the 1st grade of high school (n=101) had the highest frequency of participation in physical fight (39.6%) and early start of sexual activity (31%). These behaviors were not associated, with the values p=0.268 for those who participated in physical fighting and p=0.442 for those who had sexual intercourse.

It was also shown no significant association the variables cigarette consumption (p=0492), consumption of illicit drugs (p=0.787) and condom use (p=0.527). However, there was a higher frequency among students of the 2nd grade (n=68), in which 23.5% have expressed to consume cigarette, 7.2% have used an illicit drug and among those who began their sexual life, 42.9% said never/rarely used condoms.

The students of the 3rd grade (n=48) had a higher frequency when the subject was not practicing physical activity, 64.6% of them did not practice any physical activity, but showed no significant association (p=0.171). Another behavior without association was alcohol consumption (p=0.232), revealing a high frequency in the three grades of high school, but the 3rd was the highest (58.3%), followed by 2ndgrade (58%) and then the 1st grade (46.5%).

Table 4. Distribution of risk behavior frequency, according to RACE/COLOR. Fortaleza, CE, Brazil, 2012.

Variables	Race/color			
	White n (%)	Brown n (%)	Others n (%)	P value
Practice physical activity				0,982
Yes	25(46,3)	72(47,7)	6(46,2)	
No	29(53,7)	79(52,3)	7(53,8)	
Eat fruits/vegetables				0,831
Yes	47(87,0)	127(83,6)	11(84,6)	
No	7(13,0)	25(16,4)	2(15,4)	
Smoked cigarettes				0,516
Yes	9(16,7)	30(20,0)	4(30,8)	
No	45(83,3)	120(80,0)	9(69,2)	
Consumed alcohol				0,737
Yes	26(48,1)	82(54,3)	7(53,8)	
No	28(51,9)	69(45,7)	6(46,2)	
Used illicit drugs				0,958
Yes	3(5,6)	9(6,0)	1(7,7)	
No	51(94,4)	142(94,0)	12(92,3)	
Participated of physical fights				0,839
Yes	18(33,3)	49(32,5)	6(46,2)	
No	36(66,7)	102(67,5)	7(53,8)	
Had sexual intercourse				0,616
Yes	15(28,3)	39(26,0)	5(38,5)	
No	38(71,7)	101(74,0)	8(61,5)	
Use condoms				0,946
Never/rarely	6(40,0)	12(30,8)	1(25,0)	
Always	9(60,0)	27(69,2)	3(75,0)	

The frequency of risk behaviors, according to race/color are similar, as the practice of physical activity (p=0.982), in which 53.8% of the students of other races/colors indicated no physical activity followed by whites (53.7%) and browns (52.3%). Alcohol consumption (p=0.737) also showed similar frequencies. Among those who reported having consumed alcohol at least once in life, brown students had a higher prevalence (54.3%), followed by other races/colors (53.8%) and white (48.1%).

The frequency of brown not consuming fruit/vegetables was slightly higher than the others, but they showed low prevalence, with 16.4%, that is 1% more than students of other races/colors, ending without association (p=0.831).

Students of other races/colors had a higher frequency in the use of illicit drugs (p=0.958), participation in physical fights (p=0.839) and early starting of sexual activity (p=0.616), in which 7.7% expressed have used some type of illicit drug, 46.2% have participated in fight outside or inside the school and 38.5% have begun their sexual life.

As for not using condoms (p=0.946), whites were more frequent (11.1%), among only those who have confirmed sexually active (N=15), 40% (n=6) stated that never/rarely used condoms.

DISCUSSION

Risk behaviors highlighted in this study were: no consumption of fruit/vegetables; participation in physical fights; no practicing physical activity; cigarette consumption; alcohol consumption; consumption of illicit drugs; early starting of sexual activity; and the inconsistent use of condoms, which predispose to illnesses.

It has been noted that some risk behaviors (insufficient levels of physical activity, smoking and excessive consumption of alcoholic beverages) measured in childhood and adolescence are associated with risk factors for cardiovascular disease and the presence of cardiovascular disease in adulthood, in which there is the possible potentiation of the disease process when two or more risk behaviors are practiced by an individual.[12]

The significant association between no practice of physical activity and female adolescents, corroborates studies showing the female adolescent being more sedentary. These results can be attributed to cultural factors that encourage girls to play about the care of the house and dolls, encouraging girls to play indoors. On the other hand, boys are encouraged to play sports and competitive practices and, therefore, tend to incorporate these practices in adult life.[13]

Therefore, it is encouraged for active interventions that consider the cultural and economic experiences in the promotion of health practices.[14] In the consumption of fruit/vegetables, it was observed significant association with adolescent gender. A study in Juiz de Fora did not show a significant statistic about the feeding behavior between genders of adolescents in the multivariate covariance model.[15] In another study of 600 adolescents in the Brazilian northeast, 10% did not consume fruits and 30.7% did not consume

vegetables, only 6.5% of adolescents ate both daily, and the daily use of vegetables and fruits was highlighted among the adolescents.[16]

Therefore, in addition to low amount, there is little variety of fruits/vegetables among adolescents, which can highlight possible food monotony, creating greater risk of nutritional needs.[17]

Among adolescents of the sample, almost 20% reported smoking at least once in life. Cigarette experimentation at least once in life was reported in another study in 24% of the students. This proportion increased with age, from 16% among students under 13 years old to 41% among those who were 16 years old or more.[18] smoking cigarette at some point in life had a significant association with male adolescents, while 15.1% of girls had used tobacco. Opposite to these data, another study concludes that among 24.2% adolescents who have tried cigarettes at least once in life, there was no difference between genders.[13]

In this behavior, adolescent smokers are very likely to become adult smokers, increasing susceptibility to illness and risk of mortality associated with smoking. The main causes of death in adults related to cigarette use are cardiovascular, chronic respiratory diseases and lung cancer.[13]

In alcohol consumption, one of the most prevalent behaviors among adolescents (52.8%), the environment and its social-overlapping (friendships, family relationships, feelings of loneliness) have been shown to induce the use of alcohol and presented high prevalence in Brasil.[19] A study stated that 71.4% of students tried alcohol at least once in life, and more often in girls.[13]

Adolescents of 13.37±1.92 years old have their first contact with alcohol, with statistically significant association for male adolescents and family difficulties, preferably with their mtoher.[20] Although this association was not observed in this study, it is aware that complications may be associated with the use of alcohol as an incentive to bullying, traffic accidents and fights.[21-22]

The use of illicit drugs among adolescents in this study reached low levels (6%), working as a predictor of psychosocial problems and increasing the chance of dependence in adult life.[13] The use of psychoactive drugs, along with alcohol use, are usually associated with violent behavior and maladjustment in parental relationships. Beyond the commitment that brings to health, it can cause school and job abandonment, where they and their families become vulnerable.[23-24]

The efforts of the government and the third sector to work with prevention substance abuse programs, and promoting the reduction of chemical dependency, promotes the reduction of violent behavior imposed by the use of drugs.[25]

Thus, it has been encouraged to work with creative strategies to discuss such issues, enabling youth participation and providing opportunities for critical reflection of these individuals dynamically and respectfully.[26]

The unsafe intercourse is worrisome among adolescents. According to this research data, the females (47.9%) reported that they never or rarely used condom, being more prone to illness from this risky behavior. The consumption of an illegal substance in their lifetime remained significantly associated with the pattern of risk behavior for sexual and reproductive health. This pattern, in turn, was observed in 36% of adolescents with a history of sexual relationship.[27]

Other risk behaviors that maintain an association with male was the early starting of sexual activity ($p<0.001$). The female was associated with the low frequency of condom use ($p<0.001$), 47.8% of young people reported never/rarely use condoms during sexual intercourse among adolescents, 22.9% reported not using condoms.

In a similar study among adolescents who were sexually active, 38.3% reported not using condoms regularly in sexual intercourse, particularly female adolescents.[6]

Thus, adolescents continue the behavior of not using condoms, with a grace period of performance of health services in the discussion of perspective and clarifying questions that permeate the experience of adolescent sexuality from the perspective of promoting health. In this process, it must be considered the individuality and cultural practices of the adolescents.[28]

Physical fight was significantly associated ($p<0.001$) among male adolescents, in which 51.6% had participated in or out of school, while among female, this practice was reported by 20.5%. The prevalence of violence among adolescents, especially males, presents high and appears to be closely linked with other risk behaviors such as alcohol and other drugs, noting importance of educational activities in preventing violence among the students.[23]

Data from crossing the variables race/color and risk behaviors showed no statistically significant association. In the multivariate analysis, demographic feature race/color, being brown was associated strongly to

smoking.[18] Such result shows divergence between the results collected in this study, because the consumption of tobacco presented null association (p=0.516) for race/color variable and the higher frequency occurred among adolescents of other race/color (30.8%) and not brown (20%). Therefore, the risk behaviors in this study were independent of race/color adolescents.

CONCLUSION

The main risk behaviors presented by adolescent students were among participants with higher or lower prevalence. The adolescents were most vulnerable to sedentary lifestyle and unprotected sex. Among male adolescent, those associated with greater proximity to violence were concerned, such as smoking, drinking and illicit drug use.

Among the studied associations, it is important the younger age group with the use of alcohol and early sexual activity; females with a sedentary lifestyle and not using condoms; males with intake of fruits/vegetables, smoking and early sexual life.

Knowing these behaviors may facilitate the planning of educational interventions by health professionals, especially by nurses, adapting to the main problems that are in the adolescent environment, valuing the school as care space.

They are all behaviors that are often not perceived by adolescents as a risk to their lives. Therefore, health professionals must develop innovative strategies to achieve efficiently these clients, with a view to the change in lifestyle, with the adoption of positive attitudes to adolescent health.

REFERENCES

1. Beck CC, Lopes AS, Giuliano IC, Borgatto AF. Cardiovascular risk factors in adolescents from a town in the Brazilian South: prevalence and association with sociodemographic variables. Rev bras epidemiol [Internet] 2011 Mar [cited 2015 Mar 22]; 14(1):36-49. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1415-790X2011000100004&lng=en. http://dx.doi.org/10.1590/S1415-790X2011000100004.

2. Araújo AC, Lunardi VL, Silveira RS, Thofehrn MB, Porto AR. Transição da adolescência para a fase adulta na ótica de adolescentes. Rev enferm UERJ. [Internet] 2011 [cited 2015 Mar 22];19(2):280-5. Disponível em: http://www.facenf.uerj.br/v19n2/v19n2a18.pdf

3. Oliveira AM. Behaviorismo [Internet]. 2008. [cited 2012 mar 10]. Available from: http://www.administradores.com.br/informe-e/producaoacademica/behaviorismo/506.

4. Luna RL. Síndrome metabólica. Arq bras cardiol. [Internet] 2007 [cited 2015 Mar 22]; 88(5):124-6. Available from http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0066-782X2007000500027&lng=en&nrm=iso. http://dx.doi.org/10.1590/S0066-782X2007000500027.

5. Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance: National College Health Risk Behavior Survey – United States, 2005. MMWR CDC surveill summ. [Internet] 2006 [cited 2015 Mar 22];55(5):108. Available from http://www.cdc.gov/mmwr/preview/mmwrhtml/ss5505a1.htm

6. Farias JCJ, Nahas MV, Barros MVG, Loch MR, Oliveira ESA, Bem MFL et al. Comportamentos de risco à saúde em adolescentes no Sul do Brasil: prevalência e fatores associados. Rev Panam Salud Publica [Internet]. 2009 Apr [cited 2015 Mar 22];25(4):344-52. Available from: http://www.scielosp.org/scielo.php?script=sci_arttext&pid=S1020-49892009000400009&lng=en. http://dx.doi.org/10.1590/S1020-49892009000400009.

7. Franca C, Colares V. Validação do *National College Health Risk Behavior Survey* para utilização com universitários brasileiros. Ciênc Saúde Coletiva [Internet]. 2010 June [cited 2015 Mar 22];15(Suppl 1):1209-15. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1413-81232010000700030&lng=en. http://dx.doi.org/10.1590/S1413-81232010000700030.

8. Instituto Brasileiro de Geografia e Estatística (IBGE) [Internet]. Pesquisa Nacional de Saúde do Escolar (Pense), 2009 [cited 2012 Mar 13]. Available from: http://www.ibge.gov.br/home/estatistica/populacao/pense/default.shtm.

9. Claro LBL, March C, Mascarenhas MTM, Castro IAB, Rosa MLG. Adolescentes e suas relações com serviços de saúde: estudo transversal em escolares de Niterói, Rio de Janeiro, Brasil. Cad Saúde Pública [Internet] 2006 [cited 2015 Mar 22];22(8):1565-74. Available from: http://www.scielo.br/scielo.php?script=sci_ar

ttext&pid=S0102-311X2006000800005. http://dx.doi.org/10.1590/S0102-311X2006000800005

10. Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance: National College Health Risk Behavior Survey – United States. MMWR CDC surveill summ. [Internet] 2011 [cited 2015 Mar 22]; 61(4):162. Available from: http://www.cdc.gov/mmwr/pdf/ss/ss6104.pdf

11. Brasil. Ministério da Saúde. Conselho Nacional de Saúde. Resolução Nº 466/126. Diretrizes e normas regulamentadas de pesquisa envolvendo seres humanos. Brasília: Ministério da Saúde; [Internet] 2012 [cited 2015 Mar 22]. Avaliable from: http://bvsms.saude.gov.br/bvs/saudelegis/cns/2013/res0466_12_12_2012.html.

12. Silva KS, Lopes AS, Vasques DG, Costa FF, Silva RCR. Simultaneidade dos fatores de risco para doenças crônicas não transmissíveis em adolescentes: prevalência e fatores associados. Rev Paul Pediatr [Internet] 2012 [cited 2015 Mar 22];30(3):338-45. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0103-05822012000300006&lng=en&nrm=iso .http://dx.doi.org/10.1590/S0103-05822012000300006.

13. Malta DC, Sardinha LMV, Mendes I, Barreto SM, Giatti L, Castro IRR et al. Prevalência de fatores de risco e proteção de doenças crônicas não transmissíveis em adolescentes: resultados da Pesquisa Nacional de Saúde do Escolar (PeNSE), Brasil, 2009. Ciênc Saúde Coletiva [Internet]. 2010 Oct [cited 2015 Mar 22];15(Suppl 2):3009-3019. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1413-81232010000800002&lng=en. http://dx.doi.org/10.1590/S1413-81232010000800002.

14. Silva DASS, Pelegrini A, Grigollo LR, Silva AF, Petroski AFS. Diferenças e similaridades dos estágios de mudança de comportamento para atividade física em adolescentes de duas áreas brasileiras. Rev Paul Pediatr [Internet] 2011 [cited 2015 Mar 22];29(2):193-201. Available from http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0103-05822011000200010&lng=en&nrm=iso>. http://dx.doi.org/10.1590/S0103-05822011000200010.

15. Fortes LS, Morgado FFR, Almeida SS, Ferreira MEC. Comportamento alimentar e atividade física em adolescentes. Rev Nutr [Internet] 2013 [cited 2015 Mar 22];26(5):529-37. Avaliable from: http://www.scielo.br/pdf/rn/v26n5/a04v26n5.pdf

16. Muniz LC, Zanini RV, Schneider BC, Tassitano RM, Feitosa WMN, González-Chica DA. Prevalência e fatores associados ao consumo de frutas, legumes e verduras entre adolescentes de escolas públicas de Caruaru, PE. Ciênc saúde coletiva [Internet] 2013 [cited 2015 Mar 22];18(2):393-404. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1413-81232013000200011&lng=en&nrm=iso. http://dx.doi.org/10.1590/S1413-81232013000200011.

17. Leal GVS, Philippil ST, Matsudo SMM, Toassa EC. Consumo alimentar e padrão de refeições de adolescentes, São Paulo, Brasil. Rev bras epidemiol [Internet]. 2010 Sept [cited 2015 Mar 22];13(3):457-67. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1415-790X2010000300009&lng=en. http://dx.doi.org/10.1590/S1415-790X2010000300009.

18. Barreto SM, Giatti L, Casado L, Lenildo M, Crespo C, Malta DC. Exposição ao tabagismo entre escolares no Brasil. Ciênc Saúde Coletiva. [Internet] 2010 [cited 2015 Mar 22];15(2):3027-34. Available from http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1413 81232010000800007&lng=en&nrm=iso. http://dx.doi.org/10.1590/S1413-81232010000800007.

19. Barbosa Filho VC, Campos W, Lopes AS. Prevalence of alcohol and tobacco use among Brazilian adolescents: a systematic review. Rev Saúde Pública. [Internet] 2012 [cited 2015 Mar 22];46(5):901-17. Available from http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0034-89102012000500018&lng=en&nrm=iso. http://dx.doi.org/10.1590/S0034-89102012000500018.

20. Campos JADB, Almeida JC, Garcia PPNS, Faria JB. Consumo de álcool entre estudantes do ensino médio do município de Passos – MG. Ciênc Saúde Coletiva [Internet] 2011 [cited 2015 Mar 22];16(12):4745-52. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1413-81232011001300023&lng=en&nrm=iso. http://dx.doi.org/10.1590/S1413-81232011001300023.

21. Andrade SSCA, Yokota RTC, Sá NNB, Silva MMA, Araújo WN, Mascarenhas MDM et al. Relação entre violência física, consumo de álcool e outras drogas e *bullying* entre adolescentes escolares brasileiros. Cad Saúde Pública [Internet] 2012 [cited 2015 Mar 22];28(9):1725-36. Available from http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0102-311X2012000900011&lng=en&nrm=iso>. http://dx.doi.org/10.1590/S0102-311X2012000900011.

22. Secretaria de Estado de Saúde (MG). Atenção à saúde do adolescente: Belo Horizonte: SAS/MG [Internet] 2006 [cited 2015 Mar 22]. Avaliable from: https://www.nescon.medicina.ufmg.br/biblioteca/imagem/2122.pdf

23. Castro ML, Cunha SS, Souza DPO. Comportamento de violência e fatores associados entre estudantes de Barra do Garças, MT. Rev Saúde Pública [Internet]. 2011 Dec [cited 2015 Mar 22];45(6):1054-61. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0034-89102011000600007&lng=en http://dx.doi.org/10.1590/S0034-89102011005000072.

24. Alvarez SQ, Gomes GC, Xavier DM. Causes of addiction and its consequences. J Nurs UFPE on line [Internet]. 2014 [cited 2015 Mar 22]; 8(3):641-8. Avaliable from: http://www.revista.ufpe.br/revistaenfermagem/index.php/revista/article/view/3509/pdf_4718.

25. Nardi FL, Cunha SM, Bizarro L, Dell'Aglio DD. Drug use and antisocial behavior among adolescents attending public schools in Brazil. Trends Psychiatry Psychother [Internet] 2012 [cited 2015 Mar 22];34(2):80-6. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S2237-60892012000200006&lng=en&nrm=iso. http://dx.doi.org/10.1590/S2237-60892012000200006.

26. Pereira MO, Farias SMC, Silva SS, Oliveira MAF, Vargas D, Bittencourt MN et al. Educational approach with teens about the consumption of alcohol and other drugs. J Nurs UFPE on line [Internet]. 2014 [cited 2015 Mar 22]; 8(3):661-8. Avaliable from: http://www.revista.ufpe.br/revistaenfermagem/index.php/revista/article/view/3983/pdf_4732.

27. Campo-Arias A, Ceballo GA, Edwin H. Prevalence of Pattern of Risky Behaviors for Reproductive and Sexual Health Among Middle- and High-School Students. Rev Latino-Am Enfermagem. [Internet] 2010 [cited 2015 Mar 22];18(2):170-4. Avaliable from: http://www.scielo.br/pdf/rlae/v18n2/05.pdf

28. Brum MM, Carrara K. História individual e práticas culturais: efeitos no uso de preservativos por adolescentes. Estud Psicol [Internet] 2012 [cited 2015 Mar 22];29(Supl.1):689-97. Available from http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0103-166X2012000500005&lng=en&nrm=iso. http://dx.doi.org/10.1590/S0103-166X2012000500005.

Submission: 2014/05/12
Accepted: 2015/03/21
Publishing: 2015/04/15

Corresponding Address

Manuela de Mendonça Figueirêdo Coelho
Faculdade Metropolitana da Grande Fortaleza/FAMETRO
Rua Conselheiro Estelita, 500
Bairro Centro
CEP 60010-260 – Fortaleza (CE), Brazil