

# Health education with adolescents: analysis of knowledge acquisition on health topics

*Educação em saúde com adolescentes: análise da aquisição de conhecimentos sobre temas de saúde*  
*Educación en salud para adolescentes: análisis de la adquisición de conocimientos sobre temas de salud*

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## ABSTRACT

**Objective:** The study aimed to analyze the acquisition of knowledge on three themes: Oral Health, Drug use Prevention and Sexuality. The research subjects were adolescents enrolled in public schools, in the south of Santa Catarina state. **Methods:** It is a field research, temporal, prospective, analytical, carried out in two public schools on the mentioned state. The sample size of adolescents, of both sexes, aged 11-17 years, varied according the theme: 108 (oral health), 105 (drugs prevention), 99 (sexuality). For every action, it was developed and implemented a questionnaire (pre/post-action) with specific topics. The research was approved by the Ethics Committee of Research. **Results:** The actions, although punctual, showed positive results in increasing the knowledge of adolescents on drug prevention and sexuality, which did not happen on the theme of oral health. **Conclusion:** The results are related to factors that aroused the interest of adolescents, for example, methods which promote dialogue, exchange of experiences, reflect on their own practices and relationships with groups of friends/family.

**Keywords:** Adolescent; Health Education; Life style; Public Health.

## RESUMO

**Objetivo:** O estudo tem por objetivo analisar a aquisição de conhecimentos sobre os temas: Saúde Bucal, Prevenção ao uso de Drogas e Sexualidade, junto a adolescentes matriculados na rede pública de ensino do Sul de Santa Catarina. **Métodos:** Pesquisa de campo, temporal, prospectiva, analítica, realizada em duas escolas públicas do sul catarinense. Amostra de adolescentes de ambos os sexos, idades entre 11 e 17 anos, variou conforme tema: 108 (saúde bucal), 105 (prevenção-drogas), 99 (sexualidade). Para cada ação foi construído e aplicado questionário (pré/pós-ação) com temas específicos. Pesquisa aprovada Comitê Ética nº 278.224/2013. **Resultados:** As ações, mesmo que pontuais, apresentaram resultados positivos quanto ao aumento de conhecimento dos adolescentes nas temáticas sobre prevenção de drogas e sexualidade, fato que não se configurou na temática saúde bucal. **Conclusão:** Os resultados estão relacionados a fatores que despertaram o interesse dos adolescentes como: métodos empregados que favoreceram o diálogo, troca de experiências e reflexão sobre as próprias práticas, relacionamentos com grupos de amigos/famílias.

**Palavras-chave:** Adolescente; Educação em Saúde; Estilo de Vida; Saúde Coletiva.

## RESUMEN

**Objetivo:** Analizar la adquisición de conocimientos sobre los temas Salud Bucal, Prevención al Uso de Drogas y Sexualidad, tratados con adolescentes matriculados en escuelas públicas de Santa Catarina. **Métodos:** Investigación de campo, temporal, prospectiva, analítica, realizada en dos escuelas públicas. Participaron adolescentes de ambos sexos, entre 11 y 17 años: 108 (salud oral); 105 (prevención contra las drogas); 99 (sexualidad). Para cada acción, se aplicó un cuestionario (pre/post acción) con temas específicos. Investigación aprobada en el Comité de Ética nº 278.224/2013. **Resultados:** Las acciones, aunque puntuales, mostraron resultados positivos cuanto al aumento de los conocimientos de los adolescentes sobre prevención de drogas y sexualidad, lo que no se ha constatado en la temática de salud bucal. **Conclusión:** Resultados relacionados con factores que despertaron el interés de los adolescentes como: métodos empleados que favorecieron el diálogo, intercambio de experiencias y reflexión sobre sus propias prácticas, las relaciones con los grupos de amigos/familiares.

**Palabras clave:** Adolescente; Educación en Salud; Estilo de vida; Salud Pública.

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Submitted on 08/25/2014.  
 Accepted on 06/01/2015.

DOI: 10.5935/1414-8145.20150064

## INTRODUCTION

The adolescence is a gradual transition between childhood and adulthood, characterized by changes: physical, psychological, social and comportamentales<sup>1</sup>. Represents an important moment of the life cycle and according to the World Health Organization (WHO) corresponds to a period between 10 and 19 years. It is characterized by the need for social integration, the pursuit and personality development, the definition of sexual identity and the discovery of limitations. Yet, some characteristics stand out, among others: the emotional and intellectual growth, the interpersonal relationships and the experience of emotion and sexuality<sup>1,2</sup>.

Alongside these changes, it is growing the autonomy and independence from the family and also the experimentation with new behaviors and experiences that may represent significant risk factors for the health, such as unprotected sex, poor diet, physical inactivity, use of licit and/or illicit drugs (including alcohol and tobacco). These factors predispose the emergence of infections caused by sexually transmitted diseases, unwanted pregnancies, accidents and violence, as well as vulnerability to chronic non-communicable diseases, such as obesity and dyslipidemia<sup>1-4</sup>.

By addressing issues such as drug use and sexuality, it is important to understand that the information, delivered to adolescents, has to assume the role of prevention and health promotion, and it must be given with prudence so as not to arouse curiosity for consuming or starting an early use<sup>5</sup>. In order to consider the information as a factor of protection and health promotion, it has to be shared correctly and completely, informing the negative effects - use of drugs and unprotected sex - but also explaining that there are momentary pleasures, which may cause in the future anguish and suffering. Thus, it is believed that adolescents may act more consciously when facing external pressures<sup>1,5</sup>.

In addition to the mentioned problems, another aspect that was clearly demonstrated in adolescents refers to neglecting oral health care. As a consequence, there is a significant incidence, in that population, of oral diseases such as dental caries, gingivitis, periodontal disease and also bad breath<sup>6-8</sup>.

There is the understanding that adolescence is the period where several habits and behaviors are established and incorporated, and possibly they are transferred to adulthood, making them more difficult to be changed<sup>2,3</sup>. Therefore, it is important to motivate the adolescent to become an active subject of his own care, using for this, health education strategies that aim at promoting health, prevent damage and practice of self-care<sup>2</sup>.

The participation of parents, family members, professionals of health and education, in the lives of adolescents, are essential in this process because they can provide moments of dialogue, counseling and health education activities, thus enabling the construction of critical awareness about the importance of acquiring healthy habits<sup>2,4</sup>.

With this notion, the school occupies an important place in the development of orientation activities, freedom of expression and health education. The health education promoted

in this space must be based on references that innovate in education and in professionals who understand the complexity of the health phenomenon, from a broad and multidimensional concept, which considers the social determinants of the health-disease process<sup>9,10</sup>. These aspects contribute to promote positive health actions on school students, which could be broadened to his family.

Thus, health education developed in this study is based on health promotion assumptions which sought, in the last three decades, renew and transform educational practices in the health care field. These changes occurred when health education was understood as a factor for promoting and protecting the health, which mobilizes the construction and incorporation of practices aimed at changing unhealthy behaviors through the empowerment of individuals; these changes took place when participatory intervention models, that consider the knowledge of all participants, were included in the education activities<sup>9,10</sup>. Therefore, from that educational and dialogic model, that aims to promote the transformation of reality based on criticism and reflection, people are encouraged to make decisions about their own lives, through the notion of autonomy<sup>11</sup>.

It is speculated that the earlier attitudes of health promotion are introduced (explicative and active in pursuing knowledge about health conditions) the sooner these actions can change the current scenario of adolescents' health, and thus forming healthier adults.

However, it is essential that these actions occur continuously with content and diversified methodologies that respect local and regional characteristics; in addition, it should be possible to evaluate the effectiveness of those actions, checking the change in behavior and/or self-knowledge, through the acquisition of knowledge, encouraging young people to adopt a healthy lifestyle.

Given these concerns and since the time period in which the study was designed, it was not possible to evaluate the change in behavior; the current research aims to analyze the acquisition of knowledge on following topics: Oral Health, Prevention of Drug Use and Sexuality, among adolescents enrolled in public schools in the south of Santa Catarina state.

## METHODS

This is a field study, temporal, prospective and analytical, it was held in two state schools that belong to the public school system, situated in the south of the Santa Catarina state; they were divided into two categories: Elementary School II (E1) and High School (E2); the research analyzed: a) the initial knowledge and b) the knowledge after the implementation of the health education actions.

The studied population consisted of 150 adolescents, being 50.9% female and 49.1% male, aged between 11 and 17 years, enrolled in the evening and night periods. The group E1 consisted of 112 elementary school students II (8<sup>th</sup> and 9<sup>th</sup> grade), enrolled in the evening period; the group E2 was formed by 38 high school students (1<sup>st</sup> and 2<sup>nd</sup> year), enrolled in the night period. The choice

of institutions was carried out taking into account the geographical location (downtown area) and the research approval by the schools and participants of the study.

The research was approved by the Institutional Research Ethics Committee (HREC). To be able to participate in the study the adolescents should: a) be enrolled regularly and with a minimum attendance of 75%; b) complete and return the questionnaires in the two periods - before and after the educational activities; and c) sign the informed consent. To participate in the research, the underage students must have the parental or guardian consent.

Were excluded from the study, students who did not properly complete the questionnaires and/or did not return the questionnaires, in one of the two moments of data collection (before and/or after the educational activities); as a result, the sample size was different for the three research themes. In the oral health theme, the sample consisted of 108 students; in the theme about drugs was of 105 students, and in the theme of sexuality, the sample was formed by 99 participants.

The study contained the following actions: 1) apply the questionnaire "pre" (educational activities aiming to analyze the prior knowledge of adolescents on the themes); on each theme it was applied a specific questionnaire related to the theme content; 2) develop health education actions on oral health, drug prevention and sexuality, through audiovisual exposition and dialogue; 3) apply the same questionnaire (related to each educational activity) after an interval of 30 days of having completed the activity.

The questionnaires used contained only closed questions, prepared by each professional who participated in the research as a mediator of the teaching-learning process; each questionnaire contained eight multiple-choice questions, in accordance with the themes. To analyze the acquisition of knowledge, about the topics covered in the educational actions evaluated with scores, were given questionnaires, in the two moments; they were divided into three categories: Low (0 a 3.00); Average (3.01a 6.00) and High (6.01a 8.00).

The activities on health education were carried out monthly, between the months of May and July 2013, totaling three activities in the adolescence on the following themes: oral health, prevention of drug use and sexuality; the actions were performed by professionals acting in the areas of Odontology, Psychology and Nursing, in the health multiprofessional residency programs at the Universidade do Extremo Sul Catarinense.

The questionnaires were made using content developed by each professional on themes related to educational actions, which were built specifically for this study and validated by the examining board of research projects. The variables considered in the data collection were: score (pre- and post-educational action), sex (Male and Female), age interval (11-12 years, 13-14 years, 15-16 years and 17 years or more) and educational level (Elementary School II and High School).

After collecting the data, it was created a database into the Excel Microsoft spreadsheet software 20.0; then, these data were exported to the software Statistical Package for Social Sciences

(SPSS) version 20.0. The data were expressed in absolute and relative frequency, mean and standard deviation. The data normality was verified by the Kolmogorov-Smirnov test.

To compare the average score pre- and post-actions of health (sex, age interval and educational level) it was used the T test for paired samples. To assess the percentage variation among the groups participating in the research, on the two moments of assessment (pre- and post-action) it was used the percent delta ( $\Delta\%$ ), calculated by the proportional difference of pre and post correct answers. To assess pre and post scores among age groups, it was used the analysis of variance (ANOVA). In the case of statistical significance ( $p < 0.05$ ), it was used the Tukey post hoc test. The  $\alpha$  level of significance established for the statistical tests was 0.05 and the confidence interval was set at 95%.

## RESULTS

Table 1 shows the following characteristics, of students participating in the research: absolute frequency and relative, and percent delta, of subjects related to sex, age interval and education level

With regard to educational activities, Table 2 shows the overall average score of the three themes involved in the research.

Table 3 presents the results stratified by sex, education and age interval, comparing the effectiveness of measures (pre and post) intra-group evaluating only the difference in the knowledge.

To better understand the results shown above, Table 4 shows the relationship of the knowledge acquired and the students interest by the topics covered.

**Table 1.** Characterization of adolescents who participated in activities of health education

Variables	N (%)	( $\Delta\%$ )
<b>Themes</b>		9.09
Oral Health	108 (100.00)	
Drugs	105 (97.2)	
Sexuality	99 (91.7)	
<b>Sex</b>		3.78
Female	55 (50.9)	
Male	53 (49.1)	
<b>Age Group</b>		716.66
11-12	35 (32.4)	
13-14	49 (45.4)	
15-16	18 (16.7)	
17 or more	6 (5.6)	
<b>Education/School</b>		269.56
Elementary School (E1)	85 (78.7)	
High School (E2)	23 (21.3)	

Source: Research Data. ( $\Delta\%$ ) Delta Percent.

**Table 2.** Results of health education actions pre- and post-intervention

Variables	N	Mean SD		p
		Pre Score	Post Score	
Oral Health	108	4.84 ± 1.25	4.84 ± 1.46	1.000
Drug prevention	105	2.09 ± 0.96	2.42 ± 1.25*	0.030
Sexuality	99	4.12 ± 1.23	5.02 ± 1.56*	< 0.001

Source: Research Data. \* Significant differences at p level < 0.05.

**DISCUSSION**

Examining the data in Table 1, the difference found in the "n" sample, related to each of the topics (oral health, preventing drug use and sexuality), it is justified by the difference found in attending the inclusion criteria of participants, in each theme. Because the incorrect filling or the failure to return the questionnaires, there was a loss of 3 participants on the theme preventing drug use and sexuality, and 9 on the oral health theme. It should be noted that this fact did not present a significant difference when evaluated by the percent delta.

With respect to sex, Table 1 showed relatively equal values also. The largest differences were found in the distribution of students by the age interval, however, within the normal range for the evaluated school groups the larger incidence was among students aged 13-14 years, this occurred because the 9<sup>th</sup> grade classes of elementary school II had more students. The difference found on "n", referred to Elementary School II and High School, it was justified due to the sample being a representation of the total number of students.

When examining the acquisition of knowledge, about the themes covered in health education activities, utilizing the average of scores awarded in the questionnaires pre- and post-test (Table 2), it can be verified significant results in the themes: prevention of drug use (p = 0.030) and sex (p < 0.001). A study on health education activities regarding the use of drugs and violent behavior, conducted with 23 adolescents aged 14 to 20 years, in a public school in the city of Fortaleza (CE), also found

an increased knowledge among adolescents on the theme<sup>12</sup>, which corroborates the findings of our study, since it is believed that health education actions on drugs contribute significantly to ponder, since it is believed that health education actions on drugs contribute significantly to ponder about the themes and better understand the dangers associated with the use of drugs in the adolescence.

Regarding sexuality, the fact that health education actions have enlarged the knowledge acquired by adolescents, it has also been demonstrated in studies performed in workshops about sex education, sexually transmitted diseases and AIDS, arguing for the importance of providing spaces to adolescents for receiving guidance and discussion on these themes, in order to develop in them the concern about practices of self-care, as well as promotion of decision making on safer-sex practices<sup>1,13-15</sup>.

The increase of knowledge was evidenced only on the topics of prevention of drug use and sexuality, this can be justified by the fact that the adolescence is marked by a phase of conflicts, doubts, curiosity, the search of new experiences and the sexual initiation<sup>12,15</sup>, these factors may have contributed to arouse on the students a greater interest by those two themes. It is important highlight that behavior change is not linked only to knowledge about certain subject; in fact, it involves a variety of variables, nonetheless, the knowledge is essential to arouse the interest of people for seeking a change<sup>5</sup>.

As seen in Table 2, the action oral health education, after its completion, did not show changes related to the acquisition of knowledge by adolescents. These findings differ from those found in a study<sup>16</sup>, that evaluated the habits and knowledge of 386 adolescents from 9 to 14 years, who participated in a preventive educational program developed by the Federal University of Alfenas (MG); in this study was demonstrated an increase of knowledge on the theme of oral health in adolescents, who participated in the educational program developed in the school environment. With regard to behavioral changes of adolescents after receiving educational actions on oral health, another study<sup>6</sup> reported improvements in oral health conditions and a decreasing consumption of sweets, in a group of 55 subjects, who participated

**Table 3.** Results of health education actions pre- and post-intervention, divided by sex, education level and age group

		Oral Health			Drug prevention				Sexuality				
		N	Mean SD		p	N	Mean SD		p	N	Mean SD		p
			Score Pre	Score Post			Score Pre	Score Post			Score Pre	Score Post	
Sex	Female	55	4.93 ± 1.20	5.02 ± 1.39	0.696	53	2.09 ± 1.01	2.26 ± 1.33	0.460	52	4.33 ± 1.31	5.17 ± 1.59*	0.006
	Male	53	4.75 ± 1.31	4.66 ± 1.52	0.743	52	2.08 ± 0.93	2.58 ± 1.14*	0.015	47	3.89 ± 1.11	4.85 ± 1.52*	< 0.001
Education	E1	85	4.88 ± 1.27	4.98 ± 1.41	0.654	80	1.94 ± 0.92	2.49 ± 1.24*	0.001	81	4.06 ± 1.12	5.01 ± 1.58*	< 0.001
	E2	23	4.70 ± 1.22	4.35 ± 1.56	0.357	25	2.56 ± 0.96	2.20 ± 1.26	0.295	18	4.39 ± 1.65	5.06 ± 1.51	0.175
Age Group	11-12 years	35	4.29 ± 1.10	4.74 ± 1.38	0.189	32	1.75 ± 0.98	2.88 ± 1.34*	< 0.001	35	3.97 ± 1.20	4.60 ± 1.63	0.076
	13-14 years	49	5.29 ± 1.22	5.16 ± 1.43	0.644	47	2.11 ± 0.81	2.19 ± 1.10	0.628	42	4.17 ± 1.08	5.33 ± 1.51*	< 0.001
	15-16 years	18	5.06 ± 1.11	4.61 ± 1.33	0.249	22	2.45 ± 1.06	2.32 ± 1.36	0.753	18	4.33 ± 1.64	4.94 ± 1.47	0.172
	17 or more	6	3.83 ± 1.17	3.50 ± 1.87	0.750	4	2.50 ± 1.29	2.00 ± 0.82	0.182	4	4.00 ± 1.15	5.75 ± 1.26	0.213

Source: Research Data. \* Significant differences at p level < 0.05 intra-groups.

**Table 4.** Frequency of correct answers of health education actions pre- and post-intervention, about Oral Health, Prevention of Drugs and Sexuality

Themes/Questions	Pre N (%)	Post N (%)	(Δ%)
<b>Oral Health (n = 108)</b>			
Tooth brushing	95.4 (103)	103 (95.4)	7.97
Causes of halitosis	54 (50)	39 (36.1)	-27.78
Dental care searching	78 (72.2)	92 (85.2)	17.95
Toothbrush replacement	42 (38.9)	46 (42.6)	9.52
Neglect of flossing the teeth	57 (52.8)	50 (46.3)	-12.28
Treatment to prevent cavities	41 (38)	27 (25)	-34.15
Use of dental floss	91 (84.3)	78 (72.2)	-14.29
Best kind of toothbrush	57 (52.8)	88 (81.5)	54.39
<b>Drug prevention (n = 105)</b>			
Drugs	5 (4.8)	9 (8.6)	80.00
Illicit drugs	16 (15.2)	18 (17.1)	12.50
Marijuana reactions	16 (15.2)	22 (21.0)	37.50
Drugs that causes immediate dependence	3 (2.9)	5 (4.8)	66.67
Psychological dependence	58 (55.2)	66 (62.9)	13.79
Anxiolytic	32 (30.5)	33 (31.4)	3.13
Hallucinogen	76 (72.4)	79 (75.2)	3.95
Objective of primary prevention	13 (12.4)	22 (21.0)	69.23
<b>Sexuality (n = 99)</b>			
Sexuality	59 (59.6)	94 (94.9)	59.32
Sexual initiation	19 (19.2)	50 (50.5)	163.16
When an adolescent is able to get pregnant	79 (79.8)	83 (83.8)	5.06
Sexually transmitted diseases	78 (78.8)	69 (69.7)	-11.54
The pill and the intrauterine device will protect against sexually transmitted diseases	56 (56.6)	49 (49.5)	-12.50
Double protection	42 (42.4)	50 (50.5)	19.05
Human immunodeficiency virus/HIV	57 (57.6)	57 (57.6)	0.00
Symptoms of Human Papillomavirus/HPV	18 (18.2)	45 (45.5)	150.00

Source: Research Data. (Δ%) Delta Percent.

in the intervention at the school. It is worth pointing out that the studies<sup>6,16</sup> mentioned had a longer time of intervention, that may be the reason for the success in the changes of knowledge and attitudes towards oral health of participants in the research.

When analyzing the average values of scores presented in Table 2, it can be verified that the theme of prevention of drugs showed the lowest scores in the two moments of evaluation; this information is worrisome when considering the consequences of the lack of knowledge on the subject. These results corroborate the findings in study that verified low knowledge about drugs in 35 adolescents, aged 10 to 19 years, residents in a community of Rio de Janeiro (RJ); the analysis of that study suggested that the low knowledge about legal and illegal drugs it is one of the main

factors of risk for initiating experimentation and consumption of these substances among teenagers<sup>5</sup>.

It is believed that the little knowledge of adolescents could be attributed to: a) lack of family dialogue, b) educators reluctant to approach the subject by feeling intimidated in touching that theme, c) circles of friendships established among adolescents who gave erroneous guidance, and d) media campaigns that do not meet the themes that interest the adolescents<sup>5</sup>. Since many adolescents do not have sources that could answer the doubts and because they are constantly exposed to the risk of drugs, it is evident the need of having permanent strategies in schools, as presented in this study, that is to say, with a perspective of preventing the experimentation of drugs by the adolescents<sup>3,5,12</sup>.

As exhibited in Table 3, it is observed that in the case of knowledge about themes covered in educational activities, female adolescents showed better results when compared with males. The characteristics that distinguishing the sexes can arouse different interests in adolescents<sup>15</sup>, thus, the difference in gain of knowledge between the sexes it could be explained by the greater interest shown by males on the themes of drugs and sexuality while females showed improvement in all themes.

Using education (Table 3) as benchmark assessment, it was verified the best results among adolescents of elementary school II, they showed a significant increase in knowledge in themes about prevention of drug use and sexuality ( $p < 0.001$ ). Those results can be explained by different projects that this school develops; the contents were treated frequently and in a simple way, starting with the knowledge that students bring from their experiences, aspect that was acknowledged during the students participation in the educational activities.

Regarding the age groups (Table 3), it was observed significant increase in knowledge, in the age interval (11-12) years, in the activity prevention of drug use ( $p < 0.001$ ) and, in the age interval (13-14) years, in the theme about sexuality ( $p < 0.001$ ). The fact that younger age intervals presented the best results it can be explained by the greater attention, the interest and participation of those students in the health education activities. The significant acquisition of knowledge related to the health education themes in younger age intervals, demonstrate that the sooner the health promotion and disease prevention are initiated, it is possible to obtain better results in the health status in adulthood<sup>2,10,13</sup>.

Since the knowledge was analyzed by means of self-administered questionnaires pre- and post-actions on health education, it was assessed the frequency of responses, as a mean of pointing out themes, addressed in the activities, that were of interest to adolescents.

With regard to oral health, when crossing information from Tables 3 and 4, it was observed that the frequency of correct answers was higher among females; the themes that had higher averages were: best kind of toothbrush, dental care searching and time to replace the toothbrush. These results are consistent with a study on 1,170 students, with a mean age of 14 years that showed, among the female participants, a proactive behavioral difference regarding the oral health attitude; the authors thought that this difference between the sexes was due to cultural habits, in which adolescent women care more about their physical appearance, "aspect that contributes to take better care of their bodies, also reflected in the habits and behaviors about oral health"<sup>7:662</sup>.

On the theme of prevention of drug use, Table 4 shows an increase in the frequency of right answers on all issues after performing the educational action, nevertheless, the questions that showed more significant increases were: a) what are drugs, b) which drug causes immediate dependence and c) what is

the objective of primary prevention. The better understanding of these issues can be an important factor to prevent or delay experimentation with drugs during adolescence<sup>5</sup>.

About the theme sexuality, in Table 4, the frequency of correct answers was more significant in the following issues: a) what is sexuality, b) timing of sexual initiation and c) what are the symptoms of Human Papillomavirus/HPV. The activity promoted the understanding that the term sexuality is comprehensive and is not a synonymous of sexual intercourse, because the first manifestation of sexuality occurs inside the uterus; it was also emphasized the importance of using condoms to prevent Human Papilloma Virus/HPV and other sexually transmissible diseases. Understanding these issues allows students to face naturally their sexuality which will help them to experience sexuality in a healthy and responsible manner, in all phases of life<sup>14,15</sup>.

It is important to highlight that conducting Health Education activities in appropriate spaces it is fundamental for the success of actions with the adolescent audiences. Therefore, taking into account its influence in the formation of habits and attitudes of adolescents and also its capability of reaching a high number of students, the school is a privileged space for development of health-promoting strategies<sup>10,13,14</sup>.

Another fundamental aspect to be considered, is to understand that in the teaching-learning process, the relationship between the educator (health professionals) and students (students belonging to schools that participate in the study) should aggregate the knowledge; it is known that one learns from the other, by means of dialogue and reflections, to solve problems of everyday life<sup>10,11,13</sup>. The educator must respect the limitations and the previous knowledge of students and share the experiences of these subjects, only in this way educational practices will obtain the expected results<sup>11</sup>.

## CONCLUSION

We conclude, therefore, that the application of instruments to analyze the acquisition of shared-knowledge in health education activities it is extremely important. With this procedure it was possible to identify: - themes of lesser knowledge, - actions that provided an increase in knowledge, - themes that aroused greater interest in adolescents. Moreover, it enabled to identify contents that should be addressed in other health education activities by the institutions that participated in this research.

The study limitations were established in the fact that the actions in health education were punctual and also it was not performed a longitudinal accompaniment to verify the effective contribution of the actions in changing adolescent behavior, suggesting further studies.

The health education actions performed in this study, even if punctual, presented positive results in increasing the adolescents' knowledge on issues of prevention of drug use and sexuality. It is considered that the results are related to several

factors that arouse the interest of adolescents, among which we can mention: methods employed that favored dialogue; exchange of experiences and reflection on their own practices, from previous experiences; relationships with groups of friends and family; and others.

As a strong point of the work it stands out the actions performed in an interdisciplinary way, which predispose progress related to health education. It was verified that the school environment was an important scenario of practices, being that through this research, administrators increased their interest in keeping those types of activities.

We believe that the acquisition of knowledge, by itself, sensitized participants on related topics or that may contribute to self-care and behavior change, therefore, improving the quality of life for the school.

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