REVISTA O MUNDO DA SAÚDE

Sociodemographic and behavioral aspects associated with positive self-perceived health among high school teenagers

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Abstract

Self-perceived health is considered to be a predictor of mortality and morbidity as it encompasses a global health assessment based on an analysis of the sociodemographic and behavioral aspects associated with positive self-perceived health among high school adolescents. This study aimed to identify the factors regarding sociodemographic aspects and health behaviors associated with positive self-perceived health of teenage students in the city of Guanambi, BA. Therefore, a cross-sectional epidemiological study was carried out with 1,140 adolescents aged between 15 and 19 years old enrolled in public and private schools in the city, using a questionnaire. Data analysis was carried out by means of binary logistic regression, with variables that presented p<20% remaining in the final model, and p<0.05 was considered statistically significant. Among the respondents, 60.9% were female, 69.3% were aged 15 to 17 years old, and 68.6% came from families with a monthly income of up to two minimum wages. It was observed that 78.3% of students rated their health positively (those who reported an excellent or good self-perceived health). In general, this outcome was associated with younger (p=0.02) males (p<0.01), with experience using drugs (p=0.04), who were physically activity (p=0.02), and had a lower stress level (p<0.01). In boys, self-perceived health was associated with physical activity (p=0.04) and lower levels of stress (p<0.01). In the analysis with the girls, the outcome was associated with the age group (p<0.01) and with lower levels of stress (p<0.01). It was concluded that the prevalence of positive self-perceived health among high school adolescents was different for males and females, as well as their associated factors.

Keywords: Adolescent behavior. Adolescent health. Teenager.

INTRODUCTION

Self-perceived health can be characterized as a predictor of mortality and morbidity, since it encompasses a global health assessment based on an analysis of the objective and subjective aspects of each individual. Such an assessment has been used in population-based studies and presents itself as a useful tool for analyzing health status, due to its simplicity and comprehensiveness, while comprehending the person's view of their health, and not only regarding the risk of death[1].

In adolescence, the perception of health is not conditioned by purely organic aspects, but incorporates the diverse dimensions emerging from the teenager's life, such as demographic, social, economic, psychological and

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competence factors[2]. This phase of the human cycle is characterized by profound biological and psychosocial changes that involve intense growth and development, that is marked by great vulnerability and involvement in risky situations and behaviors[3].

Knowing the self-perceived health of adolescents becomes an important indicator for the analysis of the physical and psychological health of this population, since it can be related to several risk factors that may reflect that of their quality of life. The possibility of correcting these risk factors through actions carried out in the community and in the school environment can contribute to better levels of health in adolescents[4].

Another important characteristic of self-perceived health is that it considers overall health, bringing it closer to the amplified concept of health[5]. As it is a subjective assessment, it is related to health information and knowledge, and socio-cultural and psychological aspects. Some studies show that self-perceived health, when negative, is related to unhealthy behaviors, such as low levels of physical activity[6] and consumption of alcoholic beverages[5].

In this sense, it is important to consider that such aspects can influence the perception of health of individuals, especially in developing countries, where there are great economic, social and even behavioral differences, which can produce different patterns of self-perceived health among subjects with different conditions and characteristics[7]. Such differences can also be observed when studying specific population groups, as in the case of adolescents, mainly due to physical, behavioral, psychological changes, among others, that can occur in this vital period of transition.

In Brazil, in 2012, young people aged between 15 and 19 years old corresponded to 7.6% of the country's population, rising to 8.1% in 2019 according to estimates by the Brazilian Institute of Geography and Statistics[8]. In the Northeast region, this frequency is slightly higher, 9% in 2012 and 8.7% in 2019[9]. It is expected that, in this age group, young Brazilians are enrolled and attending high school. However, the frequency found among adolescents at this level of education, in 2011, was less than 51%[10], factors such as school dropout, very low family income, and the lack of educational policies that meet the needs of students can be some explanations for such a value.

Studies in different populations indicate that a positive health assessment may be associated with factors such as sleep time and the practice of vigorous physical activities[11]. On the other hand, a negative perception of health among adolescents is more prevalent in those belonging to low-income families, among young women, and is related to several psychological aspects, such as high stress, feelings of dissatisfaction with life[12], feelings of sadness, suicidal thoughts and inadequate body weight perception[4].

It is known that the perception of negative health in adolescents, in another study, was associated with age, the level of stress, the presence of risky health behaviors (unhealthy diet, low level of physical activity, overweight, drinking and smoking habits), lower family income and family relationships (family distance, lack of family support in their decisions, lack of consolidated family structure)[12].

Thus, seeking to understand how health is perceived by adolescents from socioeconomically diverse regions, and which factors are associated with this perception (positive or negative), is an important tool for the definition of educational programs and actions among this specific population. In this context, the relevance of the knowledge of adolescents' self-perceived health for health promotion is highlighted, because it provides insight into their health's situation, while

focusing on people and their physical, social and cultural environment, and not on the disease process.

Therefore, the present study aimed to identify the factors associated (gender, age group, monthly family income, smoking, alcohol consumption, experiences with other drugs, level of physical activity and self-perceived stress) with positive self-perceived health among teenage students in the municipality of Guanambi (BA).

METHODS

This was an epidemiological and cross-sectional study, carried out through the application of questionnaires with adolescents enrolled in high school at private and public schools in Guanambi, a city located in the southwest region of the state of Bahia. The municipality had an average human development index (HDI = 0.673) in 2010[13].

The study population was composed of students aged 15 to 19 years old, in high school, belonging to the 10 learning centers surveyed (100% of public and private schools with a high school during the period of the study); totaling 4,132 students enrolled in high school. To calculate the sample size, the following parameters were used: confidence level of 95%, estimate error of three percentage points and the prevalence for estimated physical inactivity of 50%. To minimize the inaccuracy of the sample size (conglomerates), the effect of the sample design - *deff* [14] was used, which consists of calculating the ratio between the inaccuracies associated with the estimation of a parameter under two sample designs. For this, the initial number calculated for the sample (n=848) was multiplied by 1.5 (*deff* effect) and the sample size was extrapolated by 20% for possible losses during collection, totaling 1,527 teenagers.

In all the learning centers surveyed, initially, the consent of the educational institutions was requested to carry out the study. Then, a meeting was held with school leaders to explain the study's procedures. After approval by the Human Research Ethics Committee of the Federal University of Santa Catarina, learning centers were asked to support in the study's logistics, and dates were scheduled for the application of the questionnaires in the selected classes and for explaining to the teachers and students about the study. There, the consent forms were given to the students. The questionnaire was applied in one school at a time, sometimes occurring in several classes within the same learning center.

Thus, 1,374 questionnaires were collected, of which, after sample loss (due to refusals and exclusions - because they were outside the expected age range, or due to inadequate completion of the instrument), 1,140 students remained in the study. Classes (conglomerates) were randomly selected by drawing lots to ensure proportionality by school size, type of school (private, state and federal public), shift (day and night) and grade. In order for the calculation to be developed without major damage to representativeness, a weighting of the sample was carried out (1,140 adolescents), giving weight to individuals so that subsequent statistical analyses could be carried out. This procedure explains the fact that the results are expressed only in percentages.

The data were collected at the end of the second semester of 2012. The data collection team was composed of Physical Education teachers and students, who were previously trained and under the supervision of the researchers responsible for the project. The students in the selected classes were duly informed about the research objectives, the importance of participation and the anonymity of the information.

After voluntarily signing the terms of consent,

by the students of legal age and parents, and by the students under the age of 18, the questionnaires were applied in the classroom. No student or family member received benefits related to participation in the research. The study was submitted to and approved by the Research Ethics Committee of the Federal University of Santa Catarina, under opinion No. 167.017.

The data collection instrument used was composed of 54 questions[15], and divided into six blocks: personal information, physical activities and sedentary behaviors, perception of the school environment, eating habits and weight control, consumption of alcohol and tobacco, perception of health and preventive behavior. This questionnaire was intended to investigate the behavior of Santa Catarina teenagers aged 15 to 19 years old, and it was also used with schoolchildren in 2005 and in 2011 throughout the State of Santa Catarina.

The dependent variable of this study was self-perceived health, expressed in the following question: "In general, how do you consider your health". The response options were: "excellent", "good", "regular", "bad" or "very bad", which were categorized as positive (excellent/good) and negative (fair/bad/very bad). The independent variables investigated were either demographical or economic: gender (male; female), age group (15 to 17 years, 18 and 19 years) and monthly family income (up to two minimum wages; three or more minimum wages); behavioral variables: smoking (no; yes); consumption of alcoholic beverages (no; yes), regardless of the amount ingested and the frequency of consumption; experiences with drugs other than alcohol and smoking (yes; no); practice of moderate to vigorous physical activity (sufficiently active, ≥300 minutes/week; and insufficiently active, <300 minutes/week); and self-perceived stress (positive; negative).

The data were first tabulated in an Excel for Windows spreadsheet, and later transferred to IBM SPSS 22.0 to be analyzed. Data analysis was done in two stages. Initially, a descriptive analysis was performed to characterize the study population, with frequency distribution calculations. In the second stage, the factors associated with the outcome were verified using a gross binary logistic regression and, afterwards, they were adjusted (backward conditional method), with the results expressed in Odds Ratio (OR) and 95% CI. In the adjusted analysis, all variables were considered at the same level, and in the final model only those that presented a value of $p \leq 0.20$ remained. Factors with $p < 0.05$ were considered factors associated with positive self-perceived health.

RESULTS

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Table 2 considers the association between self-perceived health and the socio-demographic variables and health behaviors of adolescents, of both sexes, showing rough associations of self-perceived health with the variables: sex (p<0.01), age group (p=0.03), family income (p=0.04), physical activity (p=0.02) and self-perceived stress (p<0.01). In the adjusted analysis, associations were found with: sex (p<0.01), age group (p=0.02), experience with other drugs (p=0.04), physical activity (p=0.02) and self-perception of stress (p<0.01).

When considering adjusted analyses (Table 2), it is observed that boys reported a more positive perception of health than girls. The adolescents aged 15 to 17 years old, those classified as sufficiently active and those who reported a positive self-perception of stress, that is, with a lower level of stress, displayed a better self-perception of health. Regarding their experience with other drugs (other than alcohol and tobacco), it was noted that adolescents who said they had experiences with drugs had a more positive self-perception of health than those who did not report such experience.

When analyzing the association of self-perceived health and the sociodemographic and health behavior variables, for males (table 3), it was found that in the rough analysis, associations were found only with the self-perceived stress variable (p<0.01). In the adjusted analysis, associations were found with the variables: physical activity (p=0.04) and self-perceived stress (p<0.01).

When analyzing the association between self-perceived health and self-perceived stress (Table 3), it was found that boys with a negative self-perceived stress had lesser chance of positive self-perceived health than those with positive self-perceived stress (OR= 0.20; 0.11-0.36). Teenagers with insufficient levels of physical activity had a 29% lesser chance of positive self-perception of health than those with a level of physical activity considered to be adequate.

Table 4 shows self-perceived health and associations with the sociodemographic and health behavior variables of female adolescents. Both in the rough and adjusted analyses, associations were respectively found with the variables: age group (p<0.01; p<0.01) and self-perceived stress (p<0.01; p<0.01). Thus, adolescents aged 15 to 17 years old and those with positive self-perceived stress showed a more positive self-perceived health than their older peers, and those with negative self-perceived stress.

Tabela 1 – Sociodemographic and health behavior characteristics of high school teenagers in Guanambi, Bahia, Brazil, 2012 (n=1,140).

SOCIODEMOGRAPHIC VARIABLES AND HEALTH BEHAVIORS	FREQUENCY DISTRIBUTION* (%)	MALES (%)	FEMALES (%)
Sex			
Male	39.1	-------	------
Female	60.9	-------	------
Age Range			
15 to 17 years	69.3	68.6	69.8
18 to 19 years	30.7	31.4	30.2
Family income			
Up to 2 minimum wages	68.6	57.9	75.4
3 or more minimum wages	31.4	42.1	24.6
Smoker			
Yes	0.7	1.3	0.3
No	99.3	98.7	99.7
Alcohol Consumption			
Yes	76.1	71.2	79.3
No	23.9	28.8	20.7
Experience with other drugs**			
Yes	3.7	5.8	2.4
No	94.1	90.7	96.2
I do not want to answer	2.2	3.5	1.4
Practice of Physical Activity			
Sufficiently Active	19.7	23.8	17.0
Insufficiently Active	80.3	76.2	83.0
Self-perceived stress			
Positive	78.3	85.8	73.4
Negative	21.7	14.2	26.6
Self-perceived health			
Positive	69.3	79.8	62.7
Negative	30.7	20.2	37.3

*Values expressed in % due to the weighting of the sample, which attributed different weights to the individuals for analysis.
**Drugs other than alcohol and tobacco.

Table 2 - Association between self-perceived health and sociodemographic variables and health behaviors of high school adolescents in Guanambi, Bahia, Brazil, 2012 (n=1,140).

VARIABLES	SELF-PERCEPTION OF HEALTH				
	PREVALENCE (%) POSITIVE SELF-PERCEPTION OF HEALTH[1]	GROSS OR (95% CI)	p	OADJUSTED OR (95% CI)[2]	p
Sex					
Male	79.7	1		1	
Female	62.6	0.43 (0.32-0.56)		0.47 (0.35-0.64)	
Age Range			**0.03**		**0.02**
15 to 17 years	71.4	1		1	
18 to 19 years	64.8	0.74 (0.56-0.96)		0.72 (0.54-0.96)	
Family income			**0.04**		0.89
Up to 2 minimum wages	67.4	1		1	
3 or more minimum wages	73.6	1.35 (1.02-1.78)		0.98 (0.72-1.33)	
Smoker			0.91		0.69
Yes	69.3	1		1	
No	71.4	1.10 (0.23-5.29)		1.43 (0.24-8.41)	
Alcohol Consumption			0.97		0.83
Yes	69.4	1		1	
No	69.3	0.99 (0.74-1.34)		0.97 (0.70-1.34)	
Experience with other drugs**			0.09		**0.04**
Yes	78.6	1		1	
No	69.4	0.30 (0.10-0.88)		0.28 (0.09-0.86)	
I do not want to answer	52.0	0.49 (0.22-1.09)		0.36 (0.15-0.83)	
Practice of Physical Activity			**0.02**		**0.02**
Sufficiently Active	76.0	1		1	
Insufficiently Active	67.6	0.66 (0.47-0.92)		0.64 (0.45-0.92)	
Self-perceived stress			**<0.01**		**<0.01**
Positive	75.1	1		1	
Negative	48.6	0.31 (0.23-0.42)		0.34 (0.25-0.45)	

[1] Positive self-perceived health;
[2] Multivariate analysis using binary logistic regression, adjusted for the following variables: sex, age, monthly family income, smoking, alcohol consumption, experience with other drugs, physical activity and self-perceived stress; Selection method adopted: Backward.
95% CI (Confidence interval = 95%).

Table 3 -Association between self-perceived health and variables: sociodemographic and health behaviors of male adolescents (15 to 19 years old) from high school in Guanambi, Bahia, Brazil, 2012 (n=1,140).

VARIABLES	SELF-PERCEPTION OF HEALTH				
	PREVALENCE (%) POSITIVE SELF-PERCEPTION OF HEALTH[1]	GROSS OR (95% CI)	p	ADJUSTED OR (95% CI)[2]	p
Age Range					
15 to 17 years	78.4	1		1	
18 to 19 years	82.6	1.29 (0.77-2.17)		0.77 (0.46-1.27)	
Family income			0.48		0.30
Up to 2 minimum wages	81.0	1		1	
3 or more minimum wages	78.3	0.84 (0.53-1.35)		0.55 (0.08-3.50)	
Smoker			0.31		0.52
Yes	80.1	1		1	
No	66.7	0.42 (0.08-2.26)		1.45 (0.80-2.61)	
Alcohol Consumption			0.34		0.22
Yes	78.5	1		1	
No	82.5	1.30 (0.76-2.21)		0.37 (0.09-1.60)	
Experience with other drugs**			0.05	0.24 (0.08-0.72)	0.05
Yes	80.0	1			
No	80.9	0.29 (0.07-1.17)		1	
I do not want to answer	53.3	0.27 (0.09-0.76)		0.53 (0.28-0.99)	
Practice of Physical Activity			0.25		**0.04**
Sufficiently Active	83.7	1		1	
Insufficiently Active	78.4	0.71 (0.40-1.27)		0.20 (0.11-0.36)	
Self-perceived stress			<0.01	1	**<0.01**
Positive	84.0	1		0.77 (0.46-1.27)	
Negative	53.2	0.21 (0.12-0.38)			

[1]Positive self-perceived health;
[2]Multivariate analysis using binary logistic regression, adjusted for the following variables: age, monthly family income, smoking, alcohol consumption, experience with other drugs, physical activity and self-perceived stress.
Selection method adopted: Backward.
95% CI (Confidence interval = 95%).

Table 4 -Association between self-perceived health and variables: sociodemographic and health behaviors of female adolescents (15 to 19 years old) from high school in Guanambi, Bahia, Brazil, 2012 (n=1,140).

VARIABLES	SELF-PERCEPTION OF HEALTH				
	PREVALENCE (%) POSITIVE SELF-PERCEPTION OF HEALTH[1]	GROSS OR (95% CI)	p	ADJUSTED OR (95% CI)[2]	p
Age Range					
15 to 17 years	66.9	1		1	
18 to 19 years	52.9	0.56 (0.40-0.77)		0.54 (0.38-0.76)	
Family income			0.07		0.53
Up to 2 minimum wages	60.7	1		1	
3 or more minimum wages	68.5	1.41 (0.97-2.04)		1.13 (0.77-1.67)	
Smoker			*		*
Yes	62.5	1		1	
No	100.0	*		*	
Alcohol Consumption			0.14		0.21
Yes	64.1	1		1	
No	57.4	0.75 (0.52-1.10)		0.78 (0.52-1.16)	
Experience with other drugs**			0.37		0.24
Yes	76.5	1		1	
No	62.5	0.31 (0.05-1.75)		0.22 (0.04-1.33)	
I do not want to answer	55.6	0.64 (0.17-2.36)		0.49 (0.13-1.92)	
Practice of Physical Activity			0.10		0.06
Sufficiently Active	69.0	1		1	
Insufficiently Active	61.3	0.70 (0.46-1.08)		0.66 (0.42-1.02)	
Self-perceived stress			**<0.01**		**<0.01**
Positive	68.3	1		1	
Negative	47.0	0.41 (0.29-0.58)		0.39 (0.28-0.56)	

[1]Positive self-perceived health.
[2] Multivariable analysis using binary logistic regression, adjusted for the following variables: age, monthly family income, smoking, alcohol consumption, experience with other drugs, physical activity and self-perceived stress. Selection method adopted: Backward.
*The n found did not meet the statistical criteria for the analysis.
95% CI (Confidence interval = 95%).

DISCUSSION

The study investigated positive self-perceived health in school teenagers, seeking to verify the association with sociodemographic, behavioral factors, physical activity and self-perceived stress. The analysis of the results showed that more than 69% of the interviewees rated their health positively. In another study, the prevalence of positive health perception equal to 53% was found among students[16]. Meanwhile, in other studies with adolescents, higher prevalences were found[4,17,18], which may reveal how much adolescence corresponds to a healthy period of the life cycle, although this stage is marked by radical changes.

Boys showed a higher positive self-perception of health than girls, which corroborates studies with adolescents that point to a higher prevalence of negative self-perception of health among females[4,12,17,18]. In this sense, in a study conducted with 181 adolescents on lifestyle indicators and cardiorespiratory fitness, it was observed that boys reported having better health when compared to girls[19]. However, some studies indicate that adolescents are more attentive to aspects that encompass health and seek health services more, thus being more informed about the nuances that encompass the health-disease process[1,20].

The factors associated with positive self-perceived health varied when analyzed for both sexes jointly and separately. In general, it was associated with the age group, experience with drugs and performing physical activities.

Respondents aged up to 17 years old had a greater chance of positive self-perception than those aged 18 and 19 years. A systematic review study with adolescents found that the older the age group, the greater the prevalence of negative self-perceived health. The authors suggest that, over the years, adolescents are more concerned with their health and can also modify their behavior, including risky behaviors[12]. In another study carried out with schoolchildren in the city of Olinda, PE, it was found that adolescents with a higher age group were more likely to have a negative perception of health than their younger peers[4]. It was reinforced that being younger may be related to a more positive self-perception of health by adolescents.

No statistically significant association was found between the family income variable and the outcome studied, differently from what was observed in a study in Santa Catarina[20] and other North American and European countries[21]. Therefore, a local characteristic of the evaluated population is noticed, but this requires more in-depth studies to confirm this statement.

The use of alcoholic beverages, which is considered a risky health behavior, although not statistically associated in this study with self-perceived health presented more than 75% of affirmative responses regarding use. It is known that the early start of alcohol use is an indicator of impaired health status, because it is associated with an increased risk for alcohol dependence and abuse at later ages[5]. It is important to emphasize that adolescence represents one of the most critical stages of life, for its nature that is transitional and submitted to social, internal and family influences, which can lead these individuals to start using legal and illegal drugs. A study evaluated that the existence of stressful events during life and being close to friends who use drugs are factors associated with adherence to risk behaviors by adolescents[22].

As for the use of other drugs, which are considered illegal, the present study pointed out that 3.7% of adolescents reported using them. This finding succinctly discusses the need for health education with such adolescents, emphasizing the consequences of using such substances, which, although they can provide momentary well-being, caused by the action of substances in the nervous system, have a devastating action over time. In this context, the importance of actions is pointed out in a space of formal and informal education, whether in the community or school environment, but which aim to minimize risk factors and encourage protective factors for the promotion of the adolescents' health[4,22].

The use of tobacco was lower than that of other studies, raising the hypothesis of the effectiveness of anti-smoking campaigns carried out in the country over the last twenty years, emphasizing smoking as a bad thing and less socially tolerated[23]. The significant decrease in tobacco use has been

demonstrated in studies with data from different locations in Brazil[24,25].

In contrast to the decreasing trend in the prevalence of tobacco use, the use of other illicit drugs show an increasing trend in data. The frequency found in this study for the use of other drugs, although higher than that estimated for the use of tobacco, was found to be lower than that found for adolescents participating in National School Health Survey (PeNSE – 2015)[25].

Moreover, in the present study it was found that physical activity was a variable associated with the boys' positive self-perceived health. Thus, male teenagers who reported being sufficiently active has a better self-perception of health, a finding similar to another study carried out in Northeastern Brazil[26].

Higher levels of physical activity in boys can be explained by biological, sociocultural, body perception and gender attributes. Since childhood, social and cultural roles have been assigned according to gender that influence the choices of physical activity. In a recent study, differences were identified between male and female adolescents, in the study, boys showed higher levels of physical activity, and preference for the practice of soccer, skateboarding or rollerblading, cycling, running or jogging and basketball, while girls preferred to practice walking, walking with dogs, dancing, games and gymnastics[27].

In a survey conducted with Brazilian adolescents on physical inactivity at leisure, it was found that the prevalence was high, being more prevalent among girls, and was associated with age and low socioeconomic status[28]. When studying young Brazilian university students aged 17 to 21 years old, it was found that there is a relationship between the amount of vigorous physical activities and the positive perception of health in this population, which suggests that this topic goes deeper[11]. It is also important to study during which stage of exercise practice the adolescent is in; as in a survey conducted in Florianópolis, SC, the positive perception was associated with the time of exposure to exercise[29].

Self-perceived stress also had a significant relationship with self-perceived health, both for adolescents in general and for sexes separately. Those who reported less stress had a more positive self-perception of health, a finding different from that found in a study conducted in Santa Catarina[20].

The most stressful life events in adolescence can be diverse ranging from life changes, such as separation of parents, illness in the family, chronic stressful conditions such as poverty, constant family conflicts, to everyday problems such as school evaluations and disputes with friends15. Thus, it is important to consider these various stressful events reported by students when assessing self-perceived health.

It is important to highlight the limitations of the present study, which, due to its cross-sectional design, allows a momentary view of the outcome and exposure, a fact that does not allow temporarily understanding the relationship between possible causes (sociodemographic characteristics and risk behavior) with the effect (positive self-perception of health). Future prospective studies and more objective measures are needed to elucidate the direction of the associations found.

CONCLUSION

It is concluded that the prevalence of positive self-perceived health among high school adolescents was similar to studies with similar populations and was different for men and women, as well as their associated factors. In general, the variables that showed an association were sex, age, experience with drugs, physical activity and self-perceived stress; the latter being the only variable associated with positive self-perceived health for both sexes. It was observed that some risky behaviors, such as the use of tobacco and illicit drugs, displayed a low frequency, however, more than 70% of the young people interviewed had already tried alcoholic beverages at some point in their lives. Less than 20% of adolescents reported moderate physical activity.

The relevance of health education activities in schools, especially aimed at clarifying health risk behaviors, is emphasized to help adolescents have a healthy social, physical and mental growth process

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