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Reproducibility of the alcoholic beverages and illicit drug modules of the 2015 National Survey of School Health

Reprodutibilidade dos módulos bebidas alcoólicas e drogas ilícitas da Pesquisa Nacional de Saúde do Escolar 2015

Reproducibilidad de los módulos sobre bebidas alcohólicas y drogas ilícitas de la Encuesta Nacional de Salud Escolar 2015

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ABSTRACT

Objective: To evaluate the reproducibility of the modules of use of alcoholic beverages and illicit drugs of the 2015 National Survey of School Health. **Method:** Cross-sectional epidemiological study aimed at evaluating the reproducibility of collection instruments, conducted in the city of Divinópolis, Minas Gerais. The sample consisted of students attending the 9th grade of public and private primary schools in 2017. The reproducibility of the modules of use of alcohol and illicit drugs was applied to the sample and the retest occurred within 15 to 20 days with the same students. In the analysis of the test-retest agreement, the Kappa coefficient was used to analyze the nominal categorical variables; Kappa with linear weighting, in the analysis of ordinal categorical variables; and Intraclass Correlation Coefficient in the analysis of numerical variables. **Results:** Participation of 303 students. The agreement of responses was between satisfactory and moderate and there was no indicator with reasonable or poor agreement. Frequencies were close between the test-retest. **Conclusion:** The analyzed modules were satisfactory and considered replicable and reliable sources to support Public Policies and programs aimed at adolescents.

DESCRIPTORS

Adolescents; Alcohol Drinking; Illicit Drugs; Epidemiology; Reproducibility of Results.

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INTRODUCTION

The problem of the use of psychoactive substances (PS) is considered a public health issue and one of the main causes of disability and premature death worldwide[1]. In developing countries such as Brazil and China, the use of PS by adolescents is high and in China, consumption among adolescents aged 12 to 17 years in the last 30 days of a research was 42.2%[1]. In Brazil, a study conducted in Belo Horizonte, Minas Gerais state, reported an increase in consumption in the form of binge drinking (heavy episodic drinking) between 2010 and 2012, going from 35.6% to 39.9%[2].

The 2015 National Survey of School Health (2015 PeNSE – *Pesquisa Nacional de Saúde do Escolar*)[3] conducted with 9th grade primary school adolescents reported the use of alcoholic beverages by 23.8% of adolescents over a thirty-day period, with a prevalence of 22.5% for boys and 25.1% for girls, and 55.5% prevalence of lifetime use.

The early use of alcohol in adolescence can alter brain development and influence the behavioral, emotional and social development[4]. It is also related to school failure, with abandonment of studies and grade repetitions, increase in violent and risky behaviors, such as early sexual initiation and unprotected sex, and associated with the consumption of illicit drugs[5].

To assess this phenomenon, guide effective actions in the prevention of PS use and propose effective Public Policies aimed at this population, it is necessary to know the magnitude, distribution and time trend of its consumption and the associated risk factors[6].

The consumption of PS by adolescents is linked to negative consequences in the short and long term and should be discussed and analyzed. In this perspective, international organizations recommend taking actions to monitor the risk factors associated with Chronic Noncommunicable Diseases (CNDs), in this case, the use of PS[7].

One of the privileged places for research on the subject is the school, since it is the institution where adolescents spend a good part of their day and create social bonds[8].

Based on this recommendation, the Health Surveillance Secretary of the Ministry of Health, in partnership with the Brazilian Institute of Geography and Statistics (Portuguese acronym: IBGE), developed a survey that monitored the risk factors for the health of Brazilian adolescents called National Survey of School Health (PeNSE). This is a national level survey that has already had three editions (last was in 2015). All editions were conducted with 9th grade students (13-15 years old) under the justification that they have the minimum level of schooling to answer a self-administered questionnaire, in addition to being the age recommended by the World Health Organization for studies with school adolescents[9].

The 2015 PeNSE[3] was divided into modules, each with the objective of understanding a risk factor or characteristic of the adolescent, thus tracing their profile. One of the modules addressed the use of alcoholic beverages and the other the use of illicit drugs[3].

Studies like this are extremely important to know the profile of members of the population, and estimate the probability of the event occurrence, tracing its tendency and assisting in discussions and the formulation of new Government Programs and Policies[10]. The performance of these studies requires the development of instruments for the collection of information that must be in accessible language to the target audience, quickly applied and capable of capturing the event under analysis[11].

For the maximum reliability of studies, the instruments used should be evaluated regarding their effectiveness to detect the problem in the studied population. One way of evaluating these instruments is through reproducibility, which is the degree of stability displayed when a measurement is repeated under equal conditions[12]. The idea is to assess the agreement of application or interpretation of the instrument[13-14].

Based on the relevance of the topic of use of PS by adolescents and the importance of having reliable assessment instruments, the objective of the present study was to assess, through its application in another context, whether the modules related to the use of alcoholic beverages and illicit drugs used in a nationwide survey (2015 PeNSE)[3] are reproducible.

The alcohol and illicit drug use modules of the 2015 PeNSE have not undergone the reliability test yet, and this was the first to be performed. The relevance of this study lies on the importance of testing whether these modules are reliable and can be replicated in other realities and populations. Other questionnaires considered as the gold standard, such as the Alcohol Use Disorders Identification Test (AUDIT), were subjected to reliability tests and, due to their results, are considered reliable for replication.

METHOD

Study design

Cross-sectional epidemiological study aimed at evaluating the reproducibility of collection instruments.

Scenario

Performed in the city of Divinópolis, Minas Gerais (MG). The study sample consisted of students attending 9th grade in public and private schools in the city of Divinópolis, Minas Gerais, in the year 2017. The sample plan followed the same rules as the 2015 PeNSE[3].

The stratification of the sampling plan included schools as the Primary Sampling Unit (PSU), and 9th grade classes as the Secondary Sampling Unit (SSU), while the strata were composed of the administrative dependence (public and private).

The sample schools were selected from a record of all schools in the city that had 9th grade classes. Fifty-three schools were identified, 43 public and ten private in approximately 100 9th grade classes with around 3,000 students.

Sample definition

Initially, sampling by conglomerates would be performed in two steps: (1) school draw and (2) random draw of a class in each school. However, since this is a sensitive topic and considered taboo by some legal guardians of adolescents and by students themselves, one chose to select all 9th grade classes from the selected schools.

Schools were selected by simple random draw. Soon after, they were visited by the responsible researcher, when the study objectives and questionnaires were presented. Only two schools refused to participate and a new draw was necessary.

Meetings with the coordination, teachers and 9th grade classes were held. They received the visit of the researcher, who explained about the project and guarantee of anonymity. Students who agreed to participate were listed and the Informed Consent forms (ICF) were sent to their parents or guardians together with a letter explaining the study.

Two allocation strata were created, represented by the administrative dependence (public or private) of schools. The sample size was distributed proportionally to the size of these two strata, measured by the number of 9th grade classes registered. The sample size was calculated to provide estimates of the prevalence of alcohol consumption in the previous 30 days by 9th grade adolescents, estimated at around 23% for the state of Minas Gerais and Brazil according to data from the 2015 PEnSE[3].

Considering a population of 3,000 9th grade students, a maximum sampling error of 5% in absolute values, a 95% confidence level and the effect of the sampling plan (effect of the sample design of clusters) of 1.5, a sample of approximately 375 students was estimated, already considering possible losses.

According to records of an average number of 30 students per class, a sample of approximately 13 classes (=375/30) was estimated, distributed proportionally between the strata of allocation of public and private schools. According to records of schools, approximately 15% of 9th grade classes in the city of Divinópolis were in private schools against 85% in public schools. By following the proportional distribution, the study sample consisted of two private schools and 11 public schools. These schools were chosen by simple random draw.

The inclusion criterion was to be a 9th grade student in the selected schools. All students were invited to participate and those who had any disability (hearing or visual) were assisted by the responsible monitor for understanding the questions in an environment reserved for this purpose.

The questionnaires of the two steps (test-retest) were applied by the same researcher during class time in the classrooms without the presence of the teacher or any other school employee in order to avoid the students' embarrassment. Only grammar doubts about the questionnaires were answered.

Data collection

Given its scope, the PeNSE[3] is divided into blocks of questions related to important topics. The question modules comprise the family context, eating habits, physical activity practice, experimentation and consumption of cigarettes, alcohol and other drugs, in addition to issues of sexual health, violence, safety, among others. The PeNSE questionnaire[3] can be accessed in full on the IBGE website.

In one of its modules, the 2015 PenSE[3] contains eight questions focused on the theme of experimentation and use of alcohol, which, together with its alternatives, are shown in the table below (Chart 1).

The illicit drugs module had six questions related to drug use. Below, the table shows the issues addressed (Chart 2).

Chart 1 – Questions of the 2015 PeNSE alcohol use module, Brazil, 2017.

Question	Alternatives
1. Have you ever had a dose of alcoholic beverages (one serving is equivalent to a can of beer or a glass of wine or a dose of *cachaça* or whiskey etc.)?	□ Yes □ No
2. How old were you when you had your first dose of alcoholic beverage (one dose is equivalent to a can of beer or a glass of wine or a dose of *cachaça* or whiskey etc.)?	□ I never had alcohol □ 7 years of age or less □ 8 years □ 9 years □ 10 years □ 11 years □ 12 years □ 13 years □ 14 years □ 15 years □ 16 years □ 17 years □ 18 years or older
3. **IN THE LAST 30 DAYS**, in how many days have you had at least a glass or a dose of alcoholic beverage (one dose is equivalent to a can of beer or a glass of wine or a dose of *cachaça* or whiskey etc.)?	□ No day in the last 30 days (0 day) □ 1 or 2 days in the last 30 days □ 3 to 5 days in the last 30 days □ 6 to 9 days in the last 30 days □ 10 to 19 days in the last 30 days □ 20 to 29 days in the last 30 days □ Every day in the last 30 days
4. **IN THE LAST 30 DAYS**, in the days that you had an alcoholic beverage, how many glasses or doses did you have per day?	□ I have not had any alcohol in the last 30 days (0 days) □ Less than a glass in the last 30 days □ 1 glass or 1 dose in the last 30 days □ 2 glasses or 2 doses in the last 30 days □ 3 glasses or 3 doses in the last 30 days □ 4 glasses or 4 doses in the last 30 days □ 5 glasses or more or 5 doses or more in the last 30 days

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Question	Alternatives
5. **IN THE LAST 30 DAYS**, most of the time, how did you get the drink you had?	□ I have not had any alcohol in the past 30 days □ I bought at the market, store, bar or supermarket □ I bought it from a street salesperson □ I gave money to someone who bought it for me □ I got it with my friends □ I took it at home without permission □ I got it from someone in my family □ At a party □ I got it by some other way
6. In your life, how many times have you drank so much that you felt really drunk?	□ Not once in a lifetime (0 times) □ 1 or 2 times in a lifetime □ 3 to 5 times in a lifetime □ 6 to 9 times in a lifetime □ 10 or more times in a lifetime
7. In your life, how many times have you had problems with your family or friends, missed classes or fought because you had drunk?	□ Not once in a lifetime (0 times) □ 1 or 2 times in a lifetime □ 3 to 5 times in a lifetime □ 6 to 9 times in a lifetime □ 10 or more times in a lifetime
8. How many of your friends consume alcohol?	□ None □ A few □ Some □ Most of them □ All □ I don't know

Chart 2 – Questions of the illicit drug use module of the 2015 PeNSE, Brazil, 2017.

Question	Alternatives
1. Have you ever used a drug like: marijuana, cocaine, crack, glue, amil nitrate, poppers, ecstasy, oxy etc.?	□ Yes □ No [skip to 6]
2. How old were you when you used a drug like: marijuana, cocaine, crack, cola, glue, amil nitrate, poppers, ecstasy, oxy or another for the first time?	□ I never had drugs □ 7 years of age or less □ 8 years □ 9 years □ 10 years □ 11 years □ 12 years □ 13 years □ 14 years □ 15 years □ 16 years □ 17 years □ 18 years or older
3. **IN THE LAST 30 DAYS**, in how many days have you used drugs like marijuana, cocaine, crack, glue, amil nitrate, poppers, ecstasy, oxy etc.?	□ No day in the last 30 days (0 day) □ 1 or 2 days in the last 30 days □ 3 to 5 days in the last 30 days □ 6 to 9 days in the last 30 days □ 10 or more days in the last 30 days
4. **IN THE LAST 30 DAYS,** in how many days have you used marijuana?	□ No days in the last 30 days (0 days) □ 1 or 2 days in the last 30 days □ 3 to 9 days in the last 30 days □ 10 or more days in the last 30 days
5. **IN THE LAST 30 DAYS,** in how many days have you used crack?	□ No days in the last 30 days (0 days) □ 1 or 2 days in the last 30 days □ 3 to 9 days in the last 30 days □ 10 or more days in the last 30 days
6. How many of your friends use drugs?	□ None □ A few □ Some □ Most of them □ All □ I don't know

In the first application of the alcohol and illicit drugs modules, the general information module of the 2015 PeNSE was also applied, which is the first in the questionnaire and has 25 questions with the aim to characterize the adolescents. The questions refer to age, color/race, pretensions for the future, in addition to family and socioeconomic issues.

The reproducibility study of the alcohol and illicit drugs modules of the 2015 PeNSE[3] was performed with application in the selected sample and the retest was applied in the same students 15 days later (on average), with a minimum of 15 days and a maximum of 30 days between applications. The interval recommended in the literature (15 to 45 days) for performing the retest was used as reference in order to avoid significant changes in the pattern of the studied phenomenon[15].

The sample initially calculated was of 375 students, but predicting the losses due to the sensitivity of the subject,

the modules were applied to 303 students in the test (1st step). After this application, the retest was scheduled (2nd step), which included application of 246 questionnaires and a sample loss of 19.15%, related to the fact that students were not at the schools on the day of the retest. The statistical analysis of losses between applications was performed and there were no statistical differences.

The variables analyzed in the reproducibility study of the alcohol use module were: have you ever had a dose of alcohol? experimentation age; frequency of use in a single month; purchase of the beverage; abusive use of alcohol in life; social losses due to alcohol use and how many friends consume alcoholic beverages.

In the illicit drugs module, the following variables were analyzed: drug use in life; age of start of use; in the prior 30 days, in how many days the person used drugs? in the prior 30 days, in how many days marijuana was used; in the prior 30 days, in how many days the person used crack and how many friends use drugs (2015 PeNSE)[3].

Data analysis and treatment

Data entry was performed concurrently with the collection period. The information was stored and organized in an electronic spreadsheet in Excel for Windows (office 2013). After checking and correcting typing inconsistencies, data were analyzed electronically with the aid of the statistical software SPSS version 21.0. First, a descriptive analysis of all variables in the general information module was performed and the prevalence of lifetime alcohol consumption was estimated with the respective 95% Confidence Interval (95% CI).

To assess the reproducibility of the analyzed questionnaires, an analysis of the test-retest agreement was performed using Kappa coefficients (k) in the analysis of nominal categorical variables; Kappa with linear weighting in the analysis of ordinal categorical variables; and Intraclass Correlation Coefficient (ICC) in the analysis of numerical variables. For each coefficient, their respective 95% CI was also estimated.

For the interpretation of the values of k coefficients, in addition to observing their significance, the classification proposed by Landis & Koch[16] was used as well, in which k<0 values are considered no agreement; between 0 and 1.9 slight agreement; between 0.20 - 0.39 fair agreement; 0.40 - 0.59, moderate agreement; 0.60 - 0.79 substantial agreement; and 0.80 - 1.00 almost perfect agreement. In all analyzes, a significance level of 5% was considered and the statistical software SPSS, version 21.0, was used.

Ethical aspects

The study was approved by the Research Ethics Committee of the Universidade Federal de Minas Gerais in 2017, under Opinion number 1.979.622. The individuals selected to participate in the study signed the Informed Consent form, and since this is a study involving children under 18 years of age, parents/guardians consented to the participation of adolescents by signing the Informed Consent form as well. The study complies with provisions of Resolution 466/12 of the National Health Council.

RESULTS

The sample of 303 adolescents included 52.30% (n=158) of young males, 71.80% (n=216) of adolescents aged 14 years, followed by 19.30% (n=58) at the age of 15. As for skin color, 43.00% (n = 128) declared themselves as brown, followed by 39.60% (n=118) white. The socioeconomic condition was analyzed using the variable "maternal educational level", and 19.30% (n=57) of mothers had higher education, while 17.60% (n=52) had complete high school. Sample characterization data are shown in Table 1.

Table 1 – Characterization of the sample of 9th grade adolescents, application of the general information module of the 2015 PeNSE – Divinópolis, MG, Brazil, 2017.

	n	Percentual
Administrative dependence		
State	218	71.9
Private	25	8.3
Municipal	60	19.8
Sex*		
Male	158	52.3
Female	144	47.7
Color**		
White	118	39.6
Black	34	11.4
Asian	11	3.7
Brown	128	43.0
Indigenous	7	2.3
Age*		
13 years	9	3.0
14 years	216	71.7
15 years	58	19.3
16 years	12	4.0
17 years	5	1.7
19 years or older	1	.3
Full time school***		
Yes	18	6.2
Maternal educational level****		
Up to primary	74	34.7
High school	68	31.9%
Higher Education	71	33.3%

*1 interviewee without information (0.3%); **5 interviewees without information (1.7%); ***11 interviewees without information (3.6%); *****7 interviewees without information (2.3%).

Data of the test-retest agreement of the alcoholic beverage module are presented in Table 2. Coefficients ranged from 0.32 to 0.79 and in all cases, the agreement was substantial (95%CI does not pass zero). According to the analyzed variables, 49.70% of adolescents reported ingestion of a drink dose in the first evaluation and 54.80% in the retest, which resulted in a k coefficient of 0.76 (95%CI=0.68; 0.84). Regarding the age of the start of use, the average was 12.80 and 12.60, respectively, in both applications, with an ICC of 0.79 (95%CI=0.69; 0.86). In both cases, the agreement can be considered substantial.

Table 2 – Characterization of the reproducibility of data from the 2015 PeNSE alcohol consumption module, 9th grade students – Divinópolis, MG, Brazil, 2017.

	1st evaluation (n=303)		Retest (n=249)		Coefficient [95%CI]
	n	%	n	%	
Had a dose of drink					
No	150	50.3	112	45.2	0.76 [0.68; 0.84]*
Yes	148	49.7	136	54.8	
Age started drinking					
Mean ± standard deviation	12,8 ± 1,9		12.6 ± 1.8		0.79 [0.69; 0.86]**
Median (minimum - maximum)	13 (7 – 16)		13 (7 –16)		
Number of days you drank in the previous 30 days					
None	227	76.9	191	76.4	0.53 [0.40; 0.65]***
1 to 2 days	45	15.3	35	14.0	
3 days or more	23	7.8	24	9.6	
Number of glasses taken in the previous 30 days					
None	223	75.6	190	76.0	0.49 [0.37; 0.61]***
Less than a glass	47	15.9	36	14.4	
1 glass or 1 dose or more	25	8.5	24	9.6	
Number of times you got drunk in life					
None	236	81.4	199	79.6	0.65 [0.53; 0.77]***
1 or 2 times	31	10.7	34	13.6	
3 times or more	23	7.9	17	6.8	
Number of times in life you had problems because of alcohol					
None	273	91.9	224	90.0	0.32 [0.08; 0.57]*
1 time or more	24	8.0	25	10.0	
Friends drink					
No	24	8.8	28	12.1	0.56 [0.37; 0.76]*
Yes	249	91.2	204	87.9	

*Kappa; **ICC; ***Weighted Kappa.

Considering the first application of the questionnaire, 76.90% of interviewees reported no consumption of alcoholic beverages in the previous 30 days, while in the retest this percentage was 76.40%, (k=53; 95%CI=0.40; 0.65). In relation to the number of doses consumed in the previous month, 75.60% did not consume any dose of drink in the first evaluation, while in the retest this value was 76.00%, with k of 0.49 (k=0.49; 95%CI=0.37; 0.61). The agreement can be considered moderate for both indicators.

In the first application of the questionnaire, in the question related to excessive drinking, 10.70% of adolescents reported having been drunk between one and two times in their life and in the retest, the value was 13.60%, resulting in substantial agreement (k=0.65; 95%CI=0.53; 0.77). When asked if the consumption of beverages has already caused some kind of problem in their lives, 8.00% of students said yes in the test and 10.00% in the retest, reaching fair agreement (k=0.32; 95%CI=0.08; 0.57). The last question was related to having friends who use drinks, with 91.20% of adolescents reporting having friends who consume drinks in the first application, and 87.90% in the second application (k=0.56; 95%CI=0.37; 0.76); the agreement was considered moderate.

In the test-retest of the illicit drug module (Table 3), 7.70% reported lifetime drug use in the first application, while in the retest, the percentage was 7.80%, with substantial agreement (k=0.69; 95%CI=0.49; 0.89). When asked how many days they used drugs in the previous month, 56.50% and 55.00%, respectively in the first and second applications, reported not having used, with an agreement of 0.74 (95%CI=0.39; 1.00). In addition, in the first application, 55.90% of students said they did not have friends who use drugs, while in the second application, the percentage was 51.7%, an agreement of 0.63 (95%CI=0.52; 0.75), classified as substantial.

Table 3 – Characterization of the reproducibility of data from the 2015 PeNSE illicit drug use module, 9th grade students and Kappa coefficient to evaluate agreement – Divinópolis, MG, Brazil, 2017.

	1ª evaluation (n=303)		Retest (n=249)		Coefficient [95%CI]
	n	%	N	%	
Has ever used drugs in life					
Yes	23	7.7	19	7.8	0.69 [0.49; 0.89]*
No	275	92.3	226	92.2	

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	1ª evaluation (n=303)		Retest (n=249)		Coefficient [95%CI]
	n	%	N	%	
Age started using drugs					
Mean ± standard deviation	13.3 ± 1.9		13.2 ± 1.8		0.93 [0.75; 0.98]**
Median (minimum - maximum)	13 (8 – 16)		14 (7 – 15)		
Number of days you used drugs in the previous 30 days					
None	13	56.5	11	55.0	0.74 [0.39; 1.00]***
1 to 2 days	4	17.4	3	15.0	
3 days or more	6	26.1	6	30.0	
Number of days you used marijuana in the previous 30 days					
None	11	45.8	10	50.0	0.64 [0.27; 1.00]***
1 to 2 days	7	29.2	5	25.0	
3 days or more	6	25.0	5	25.0	
Number of days you used crack in the previous 30 days					
None	22	95.7	18	94.7	****
3 days or more	1	4.3	1	5.3	
Friends use drugs					
No	138	55.9	107	51.7	0.63 [0.52; 0.75]***
Yes	109	44.1	100	48.3	

*Kappa; **ICC; ***Weighted Kappa; **** Impossible to calculate because of low frequencies.

DISCUSSION

Discussing the use of PS in Brazilian society is relevant, as a national study showed that 50% of the population uses alcohol, 6.8% can be considered dependent, 16% drink harmful amounts, and 7.1% of women and 27.3% of men used alcohol and drove[5].

Regarding the use of alcohol by adolescents, according to the 2015 PeNSE survey, 55.5% of 9th grade students experimented alcohol in life[3], a higher percentage than that of the present study. This experimentation occurs at a young age, around 13 years old, as demonstrated by the study and described by other studies[17]. The consequences of this consumption are relevant and related to school dropout, early sexual initiation, among other complications[5].

The consumption of illicit drugs is also noteworthy, as Brazil is responsible for 20% of the world consumption of cocaine/crack and the main consumer market for crack in the world[18]. The use by adolescents may lead them to present greater cognitive and attention deficits, in addition to increased violence and impulsivity[19].

Based on these data and the negative consequences of PS consumption, it is relevant to conduct studies on the subject, preferably using validated and reliable instruments. The present study is the first to test the reproducibility of the alcohol and illicit drug use modules of the 2015 PeNSE[3]. Regarding the reproducibility of indicators, the results were satisfactory and the agreement of the test-retest responses was considered from satisfactory to moderate.

The results presented herein expose the quality of information regarding the use of alcohol and illicit drugs of the PeNSE (2015)[3]. The reliability of indicators showed satisfactory results; none had fair or slight agreement[16], and the frequencies were equally close between the two questionnaires.

Reproducibility tests must be performed as a way of expressing whether the questionnaire is reliable and can be replicated or not to other contexts and populations. An example is the Alcohol Use Disorders Identification Test (AUDIT) developed by the World Health Organization and subjected to a reliability test that achieved results with a high degree of excellence, therefore, it is considered the Gold Standard for the detection of alcohol use[20].

The AUDIT has been tested on both adolescents and adults. The study with adolescents occurred with students from the 1st year of high school, obtained satisfactory results and excellent internal consistency, similarly to international studies that showed an excellent reliability of the AUDIT when it was applied to adults[20].

Like the tests performed with the AUDIT, the reproducibility tests of alcohol and illegal drugs modules of the PeNSE are relevant to validate their results and prove their use to promote Public Policies aimed at adolescents. In other surveys such as the Surveillance of Risk and Protection Factors for Chronic Diseases by Telephone Survey (Portuguese acronym: VIGITEL), the test retest was also performed, with achievement of satisfactory results and its use suggested for the formulation of Public Policies[21].

The results demonstrate that even with a time interval ranging from 15 to 30 days between applications and because topics are sensitive, the consistency of responses was good. A study on the subject of self-reports showed that the omission or underestimation of the analyzed phenomena is common, whether because of shame or fear of possible exposure. The same study also mentions that between the 2009 and 2012 editions of PeNSE, the most inconsistent responses were those related to alcohol use and contradictory answers were found[22].

The 2015 PeNSE questions[3] regarding the use of PS adopt a 30 day-period as reference, which can be considered a limitation of the study, given that between the test- retest, adolescents could interpret the use in the previous 30 days

in different ways. This same problem is indicated in another study that analyzed questions related to time periods[22]. As a way of minimizing this factor, the test-retest was applied within a maximum period of 30 days. Even with these limitations and the possibility of bias in studies with self-reports of risk factors, the present investigation demonstrated reliability of the modules of use of alcohol and illicit drugs by adolescents.

CONCLUSION

The results of the test-retest of the alcoholic beverages and illicit drug modules from the 2015 PeNSE were satisfactory. The questionnaire is replicable and a reliable source for discussions about new Public Policies and Programs aimed at adolescents. In addition, the results allow a projection of the use of PS by adolescents that will reflect on its rates and implications for Public Health in the country.

RESUMO

Objetivo: Avaliar a reprodutibilidade dos módulos de uso de bebidas alcoólicas e de drogas ilícitas da Pesquisa Nacional de Saúde do Escolar do ano de 2015. **Método:** Estudo epidemiológico transversal visando avaliar a reprodutibilidade de instrumentos de coleta, realizado na cidade de Divinópolis, Minas Gerais. A amostra foi composta por alunos cursando o 9º ano do Ensino Fundamental em escolas públicas e privadas em 2017. A reprodutibilidade dos módulos de uso de álcool e drogas ilícitas foi aplicada na amostra, e o reteste ocorreu dentro de 15 a 20 dias com os mesmos alunos. Na análise da concordância teste e reteste, foi utilizado o coeficiente Kappa na análise das variáveis categóricas nominais; Kappa com ponderação linear, na análise das variáveis categóricas ordinais; e Coeficiente de Correlação Intraclasse na análise das variáveis numéricas. **Resultados:** Participaram 303 alunos. A concordância das respostas foi de satisfatória a moderada e não houve nenhum indicador com concordância razoável ou pobre. As frequências também ficaram próximas entre o teste e o reteste. **Conclusão:** Os módulos analisados foram satisfatórios, considerados reaplicáveis, e são fontes confiáveis para subsidiar Políticas Públicas e programas voltados aos adolescentes.

DESCRITORES

Adolescentes; Consumo de Bebidas Alcoólicas; Drogas Ilícitas; Epidemiologia; Reprodutibilidade dos Testes.

RESUMEN

Objetivo: Evaluar la reproducibilidad de los módulos de consumo de bebidas alcohólicas y drogas ilícitas de la Encuesta Nacional de Salud Escolar 2015. **Método:** Estudio epidemiológico transversal con el objetivo de evaluar la reproducibilidad de los instrumentos de recolección, realizado en la ciudad de Divinópolis, Minas Gerais. La muestra estuvo conformada por estudiantes de 9° grado de escuelas primarias públicas y privadas en 2017. Se aplicó a la muestra la reproducibilidad de los módulos de consumo de alcohol y drogas ilícitas y el retest se realizó en 15 a 20 días con los mismos estudiantes. En el análisis de la concordancia test-retest, se utilizó el coeficiente Kappa para analizar las variables categóricas nominales; Kappa con ponderación lineal, en el análisis de variables categóricas ordinales; y Coeficiente de correlación intraclase en el análisis de variables numéricas. **Resultados:** Participación de 303 estudiantes. La concordancia de las respuestas estuvo entre satisfactoria y moderada y no hubo indicador con concordancia razonable o pobre. Las frecuencias también fueron cercanas entre el test-retest. **Conclusión:** Los módulos analizados resultaron satisfactorios y son considerados fuentes replicables y confiables para apoyar las Políticas Públicas y programas dirigidos a adolescentes.

DESCRIPTORES

Adolescentes; Consumo de Bebidas Alcohólicas; Drogas Ilícitas; Epidemiología; Reproducibilidad de los Resultados.

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