# BRAZILIAN ADOLESCENTS' MENTAL HEALTH: 2019 NATIONAL SCHOOL HEALTH SURVEY

A SAÚDE MENTAL DOS ADOLESCENTES BRASILEIROS: PESQUISA NACIONAL DE SAÚDE DO ESCOLAR DE 2019

LA SALUD MENTAL DE LOS ADOLESCENTES BRASILEÑOS: ENCUESTA NACIONAL DE SALUD ESCOLAR 2019

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Funding: Fundação de Desenvolvimento da Pesquisa - FUNDEP.

Submitted on: 03/29/2022 Approved on: 07/07/2022

Responsible Editor:

Tânia Couto Machado Chianca

#### **ABSTRACT**

Objective: to describe the prevalence values of the mental health indicators among in-school Brazilian adolescents. Method: a cross-sectional and descriptive study conducted with data from the 2019 National School Health Survey (Pesquisa Nacional de Saúde do Escolar, PeNSE). The prevalence and 95% confidence intervals (95% CI) of the mental health indicators of Brazilian adolescents aged from 13 to 17 years old were estimated according to age, gender, school's administrative system and Federation Unit. Results: of the 125,123 students aged from 13 to 17 years old that were investigated, 4.0% (95% Cl: 3.7-4.3) mentioned that they did not have close friends; 50.6% (95% Cl: 49.8-51.4) felt worried about common everyday issues; 31.4% felt sad most of the times or always; 30.0% (95% CI: 29.4-30.6) thought that no one cared about them; 40.9% (95% Cl: 40.2-41.5) were irritated, nervous or in a bad mood; 21.4% (95% CI: 20.9-22.0) felt that life was not worth living; and 17.7% (95% CI: 17.2-18.2) presented negative mental health self-assessments. Most of these indicators were more frequent in female adolescents aged 16 and 17 years attending public schools. Conclusion: an increase in mental distress was identified among Brazilian adolescents according to the mental health indicators of PeNSE 2019. The results revealed relationships marked by gender and social class structural inequalities. More investment is necessary in public policies in order to reduce the consequences of mental distress among Brazilian adolescents.

Keywords: Mental Health; Adolescent; Health Surveys; Adolescent Development; Brazil.

#### **RESUMO**

Objetivo: descrever as prevalências dos indicadores de saúde mental entre os escolares brasileiros. Método: estudo transversal com dados da Pesquisa Nacional de Saúde do Escolar (PeNSE) de 2019. Estimou-se as prevalências e intervalos de confiança de 95% (IC 95%) dos indicadores de saúde mental dos adolescentes brasileiros de 13 a 17 anos, segundo idade, sexo, dependência administrativa da escola e Unidade da Federação. Resultados: dos 125.123 escolares de 13 a 17 anos investigados, 4,0% (IC 95%: 3,7-4,3) mencionaram que não tinham amigos próximos; 50,6% (IC 95%: 49,8-51,4) sentiram-se preocupados com as coisas comuns do dia a dia; 31,4% sentiramse tristes na maioria das vezes ou sempre; 30,0% (IC 95%: 29,4-30,6) achavam que ninguém se preocupava com eles; 40,9% (IC 95% 40,2 - 41,5) ficaram irritados, nervosos ou mal-humorados; 21,4% (IC 95%: 20,9-22,0) sentiam que a vida não vale a pena ser vivida; e 17,7% (IC 95%: 17,2-18,2) apresentaram autoavaliação em saúde mental negativa. A maioria desses indicadores foram mais frequentes em escolares de 16 e 17 anos, no sexo feminino e em escolas públicas. Conclusão: evidenciou-se o aumento do sofrimento mental entre os adolescentes brasileiros pelos indicadores de saúde mental da PeNSE edição 2019. Os resultados revelaram relações de desigualdades estruturais de gênero e classe social. É necessário maior investimento em políticas públicas a fim de diminuir as consequências do sofrimento mental entre os adolescentes brasileiros.

Palavras chave: Saúde Mental; Adolescente; Inquéritos Epidemiológicos; Desenvolvimento do Adolescente; Brasil.

#### **RESUMEN**

Objetivo: describir la prevalencia de los indicadores de salud mental entre los escolares brasileños. Método: estudio transversal con datos de la Encuesta Nacional de Salud Escolar 2019 (PeNSE). Se estimó la prevalencia y los intervalos de confianza del 95% (IC95%) de los indicadores de salud mental de los adolescentes brasileños de 13 a 17 años, según la edad, el género, la dependencia administrativa de la escuela y la Unidad de la Federación. Resultados: de los 125. 123 escolares de 13 a 17 años investigados, el 4,0% (IC95%: 3,7-4,3) mencionaron que no tenían amigos íntimos; el 50,6% (IC95%: 49,8-51,4) se sentían preocupados por las cosas comunes de la vida diaria; el 31,4% se sentían tristes la mayor parte del tiempo o siempre; el 30,0% (IC95% 29,4 - 30,6) sentía que nadie se preocupaba por ellos; el 40,9% (IC95% 40,2 - 41,5) estaba irritable, nervioso o de mal humor; el 21,4% (IC95% 20,9 - 22,0) sentía que no valía la pena vivir; y el 17,7% (IC95% 17,2 - 18,2) tenía una autoevaluación negativa de su salud mental. La mayoría de estos indicadores eran más frecuentes en los escolares de 16 y 17 años, en las mujeres y en los colegios públicos. Conclusión: se evidenció un aumento de la angustia mental entre los adolescentes brasileños a través de los indicadores de salud mental de la edición PeNSE 2019. Los resultados revelan relaciones de desigualdades estructurales de género y clase social. Es necesario invertir más en políticas públicas para reducir las consecuencias del malestar mental entre los adolescentes brasileños.

Palabras clave: Salud Mental; Adolescente; Encuestas Epidemiológicas; Desarrollo del Adolescente; Brasil.

## How to cite this article:

## INTRODUCTION

Adolescence is a period marked by a number of physical, psychological and social changes. In this phase, the nervous system undergoes changes in its neurochemical and neurotransmitter composition, developing new brain connections and maturing the prefrontal cortex, the brain region where the stimuli related to our decisions and motivations are located.¹ It is also a phase marked by specific vulnerabilities associated with the transformations undergone in this period that can potentiate mental health problems such as anxiety, fear and nervousness, as well as with exposure to poverty, violence, stress and insecurity.¹.²

At the global level, it is estimated that 1 out of every 7 (14%) young individuals aged from 10 to 19 years old has mental health problems. However, most of the cases are not diagnosed or treated, with depression, anxiety and behavioral disorders as the main causes of disabling diseases among adolescents.<sup>2</sup>

There are several factors that can cause mental distress in adolescents and cause suicidal feelings and ideation, such as the following: poor perception of life; stress experienced as a result of body changes; increased social responsibilities; greater exposure to new experiences; behaviors; and intrafamily violence.3 Added to these factors are anguish, low self-esteem due to negative self-image, family or social conflicts, fear and insecurity of making new friends and lack of hope for a change in reality.4 Psychological distress can harm adolescents' health, education and achievements.5 Therefore, it is important to investigate the mental health of this population group and know its reality, in order to support health policies and programs focused on prevention, promotion, care and comprehensive assistance for adolescents.

Diverse evidence of the 2012 and 2015 National School Health Survey (PeNSE) indicated relationships between mental health problems, such as insomnia and loneliness, and use of tobacco, alcohol and illicit drugs.<sup>6,7</sup> Another Brazilian study carried out with 74,589 adolescents revealed 30% prevalence of mental disorders among adolescents and certain difficulty identifying these problems by school managers and health services.<sup>8</sup> However, there are still few studies representing the population of Brazilian students that portray their mental health, especially in relation to friendship, concern, sadness, irritability and mental health self-assessment.

In this sense, the objective of this study was to describe the prevalence values of the mental health indicators among in-school Brazilian adolescents according to PeNSE 2019.

## **METHOD**

## Study design

This is cross-sectional study that used data from the PeNSE survey conducted from April to September 2019.

# **National School Health Survey**

PeNSE is a national survey carried out by the Brazilian Institute of Geography and Statistics (Instituto Brasileiro de Geografia e Estatística, IBGE) in partnership with the Ministry of Health and with the support of the Ministry of Education, with the objective of investigating risk and protection factors related to Brazilian adolescents' health, as well as to identify social determinants that influence the health of this population segment. Its first edition was carried out in 2009, with planning for triennial periodicity. Since then, another three editions were conducted: 2012, 2015 and 2019.

Data collection was carried out through a self-applied questionnaire directed to the students by means of a Mobile Collection Device, namely, a smartphone. The IBGE technician distributed the devices to the students present on the day of the interviews and instructed them on how to handle them. The research sampling plan was defined as a clustered sample in two stages, where the schools corresponded to the first selection stage and the classes of students enrolled, to the second. The group of students from the classes selected comprised the sample.

The sample was sized to estimate population-based parameters for the students aged from 13 to 17 years old that were enrolled in and attended public and private schools, for the following geographical levels: Brazil, major regions, Federation Units (FUs), municipalities of the capital cities, and Distrito Federal. The teaching stages considered range from 7<sup>th</sup> grade (former sixth grade) of Elementary School to 3<sup>rd</sup> year of High School, including technical courses with integrated High School and normal/magisterium courses.<sup>9</sup> PeNSE adopts weighted data calibration, with the final weight of PeNSE 2019 referring to enrolled students and an estimate of frequent students.<sup>9</sup> Methodological information about PeNSE can be consulted in other publications.<sup>9,10</sup>

### **Participants**

All the students enrolled and regularly attending classes from 7<sup>th</sup> to 9<sup>th</sup> grade of Elementary School (former 6<sup>th</sup> to 8<sup>th</sup> grades) and from 1<sup>st</sup> to 3<sup>rd</sup> year of High School (morning, afternoon and evening shifts) from public and private schools and who were present on the data collection date were selected to answer the questionnaire.<sup>9</sup> Schools with less than 20 enrolled students were excluded from this study. Thus, 125,123 adolescents aged from 13 to 17 years old enrolled in public and private schools and with normal attendance were investigated.<sup>9</sup>

## **Variables**

Figure 1 presents the mental health indicators evaluated by PeNSE in 2019 and their categorization, as used in this study.

#### Data sources

The PeNSE data are available for public access and use on the IBGE website: https://www.ibge.gov.br/estatisticas/sociais/educacao/9134-pesquisa-nacional-de-saude-do-escolar.html?=&t=o-que-e

## Statistical analyses

A descriptive data analysis was carried out through the prevalence and 95% confidence interval (95% CI) of the indicators according to age (13-17 years old; 13-15 years old and 16-17 years old), gender (female and male), and the school's administration system (public and private). The prevalence values and 95% CI of the indicators about the feeling of sadness and negative mental health self-assessment were also estimated, according to the Federation Units (FUs). The comparison between the prevalence values of the indicators was performed as per the 95% CI. Non-occurrence of overlapping of the 95% CIs was considered as statistically significant differences. The analyses were performed in Microsoft Excel\*.

### **Ethical aspects**

The students who voluntarily agreed to participate in PeNSE signed the Free and Informed Consent Form (FICF), with the possibility to stop answering the questionnaire at any moment if they wished. The data collected were confidential, not allowing identification of the students or of the school.

PeNSE 2019 was approved by the National Commission of Ethics in Research with Human Beings belonging to the Ministry of Health, under opinion number 3,249,268.

Figure 1 - Description of the mental health indicators. PeNSE, 2019

INDICATOR	DESCRIPTION		
Students who had no close friends	How many close friends do you have? Answer options: No friends, 1 friend, 2 friends, 3 or more friends; categorized as 0 (No close friends) or as 1 (1 or more close friends)		
Students who were very concerned about common everyday issues	In the last 30 days, how often have you been very concerned about common issues of your everyday life such as school activities, sports competitions, house chores, etc.?  Answer options: Never, Rarely, Sometimes, Most of the times, Always; categorized as 0 (Never, Rarely, Sometimes) or as 1 (Most of the times, Always)		
Students who felt sad	In the last 30 days, how often have you felt sad? Answer options: Never, Rarely, Sometimes, Most of the times, Always; categorized as 0 (Never, Rarely, Sometimes) or as 1 (Most of the times, Always)		
Students who felt that nobody cared for them	In the last 30 days, how often have you felt that nobody cared for you?  Answer options: Never, Rarely, Sometimes, Most of the times, Always; categorized as 0 (Never, Rarely, Sometimes) or as 1 (Most of the times, Always)		
Students who felt irritated, nervous or in a bad mood	In the last 30 days, how often have you felt irritated, nervous or in a bad mood about anything? Answer options: Never, Rarely, Sometimes, Most of the times, Always; categorized as 0 (Never, Rarely, Sometimes) or as 1 (Most of the times, Always)		
Students who felt that life is not worth living	In the last 30 days, how often have you felt that life is not worth living? Answer options: Never, Rarely, Sometimes, Most of the times, Always; categorized as 0 (Never, Rarely, Sometimes) or as 1 (Most of the times, Always)		
Students whose mental health self-assessment was negative	Percentage of in-school adolescents aged from 13 to 17 years old whose mental health self-assessment was negative in the 30 days prior to the survey. The respondents considered were those who answered "Most of the times" or "Always" in at least four of the five mental health self-assessment questions		

Source: IBGE, 2021.

# **RESULTS**

In 2019 there was an expansion in the number of schools researched: 4,242 schools, 6,612 classes, 159,245 valid questionnaires and 125.123 questionnaires analyzed, comprising the final sample of the research in this year. Table 1 presents the prevalence values of the mental health indicators, with the main results described below.

In 2019, of the students aged from 13 to 17 years old, 4.0% mentioned that they did not have close friends, with higher prevalence among those aged 16 and 17, which corresponded to 4.8% (95% CI: 4.3-5.3), and among public school students, with 4.3% (95% CI: 4.0-4.6).

The feeling of concern about common everyday issues was present in 50.6% (95% CI: 49.8-51.4) of all the adolescents, being higher among those aged 16 and 17 years old, with 56.8% (95% CI: 55.5-58.1), among females with 59.8% (95% CI: 58.8-60.9) and among students from private schools with 63.0% (95% CI: 62.1-63.9) (Table 1).

Of the total number of students, 31.4% (95% CI: 30.8-32.0) felt sad most of the times or always, mainly affecting adolescents aged 16 and 17 years old (33.1%; 95% CI: 32.1-34.1), female (44.9%; 95% CI: 43.9-45.8) and from public schools (31.8%; 95% CI: 31.1-32.5) (Table 1).

The feeling that no one cared about them was present in 30.0% (95% CI: 29.4-30.6) and was more prevalent among the older ones with 31.0% (95% CI: 30.1-31.9), among girls with 39.8 (95% CI: 38.8-40.7) and among public school students with 30.7% (95% CI: 29.9-31.4) (Table 1).

The in-school adolescents that felt irritated, nervous or in a bad mood totaled 40.9% (95% CI: 40.2-41.5). This feeling was more intense in those aged 16 and 17 years old (43.6%; 95% CI: 42.7-44.5), in the female gender (54.6%; 95% CI: 53.7-55.5) and in the private schools (43.6%; 95% CI: 42.8-44.4) (Table 2).

Of the students aged from 13 to 17 years old. 21.4% (95% CI: 20.9-22.0) felt that life was not worth living, mainly among the girls with 29.6% (95% CI: 28.7-30.5) and in public school students with 22.3% (95% CI: 21.6-22.9) (Table 1).

Negative mental health self-assessments occurred in 17.7% (95% CI: 17.2-18.2) of the adolescents, being more frequent among those aged 16 and 17 years old with 19.1% (95% CI: 18.4-19.9), among girls with 27.0% (95% CI: 26.2-27.8) and among public school students with 18.0% (95% CI: 17.4-18.6) (Table 1).

The feeling of sadness varied from 46.1% (95% CI: 43.3-48.9) among the adolescents living in Maranhão to 58.3% (95% CI: 55.5-61.1) in Distrito Federal. However,

there was no difference among the Federation Units (FUs) analyzed (Figure 2).

Negative mental health self-assessments varied from 12.8% (95% CI: 10.8-14.7) among the adolescents living in Maranhão to 21.1% (95% CI: 19.0-23.3) in Mato Grosso do Sul. There was no difference among the FUs analyzed (Figure 3).

### DISCUSSION

The Brazilian students presented negative feelings related to mental health, such as lack of close friends, sadness and worry, in addition to feeling irritated, nervous or in a bad mood and that life is not worth living. They also self-assessed their mental health as negative. It is worth noting that these feelings were mainly found in the older adolescents, in the female gender and in the public schools.

Some adolescents were at a higher risk of mental health problems due to their life conditions, as well as to lack of access to services and of support from family members or friends. Adolescents are more vulnerable to social exclusion, discrimination, learning difficulties and risk behaviors, in addition to physical health problems and violations to their human rights.<sup>2</sup> These mental health conditions of the adolescents can extend into adulthood. Consequently, mental health promotion and prevention of disorders are fundamental to help adolescents thrive.<sup>2</sup>

The feelings reported by the students and addressed in the current study are worrying. Although all individuals are exposed to unpleasant emotions and sadness, some can develop depressive conditions, with feelings of discontent, loneliness, misunderstanding and rebellious attitudes. As adolescence is an emotional reorganization phase, it is a period vulnerable to the occurrence of depressive and anxiety symptoms.<sup>11</sup>

Distancing from friends and close people, lack of interest in work, leisure and any other daily activity are striking characteristics which, together with other negative feelings such as that life is not worth living, sadness and worry, can trigger suicidal ideation, which is an important sign of psychological distress and requires a rigorous support network and multiprofessional clinical evaluation.<sup>12</sup> Unfortunately, adolescents often identify suicide as the only alternative to solve the problems experienced, representing the highest prevalence in mortality rates due to this problem, especially among women.<sup>4,13</sup>

It is noted that friendship is a resource to face the adversities experienced in this life stage, which is fundamental for this age group.<sup>14</sup> However, the adolescents who

Table 1 - Prevalence of the mental health indicators according to age, gender and school's administrative system. National School Health Survey. Brazil, 2019

Age (years old)	Total	Gender		Administrative system			
		Male % (95% CI)	Female % (95% CI)	Public % (95% CI)	Private % (95% CI)		
Students who had no close friends							
13-17	4.0 (3.7-4.3)	4.2 (3.8-4.6)	3.8 (3.4-4.1)	4.3 (4.0-4.6)	2.0 (1.8-2.2)		
13-15	3.6 (3.2-3.9)	3.7 (3.2-4.1)	3.4 (3.0-3.8)	3.9 (3.5-4.3)	1.9 (1.7-2.1)		
16 and 17	4.8 (4.3-5.3)	5.2 (4.6-5.9)	4.4 (3.8-4.9)	5.1 (4.6-5.7)	2.4 (2.0-2.7)		
Students who were very concerned about common everyday issues most of the times or always							
13-17	50.6 (49.8-51.4)	41.1 (40.2-42.1)	59.8 (58.8-60.9)	48.5 (47.5-49.5)	63.0 (62.1-63.9)		
13-15	47.2 (46.3-48.2)	38.2 (37.1-39.4)	55.9 (54.7-57.2)	44.9 (43.7-46.0)	60.0 (58.9-61.1)		
16 and 17	56.8 (55.5-58.1)	46.4 (44.9-47.9)	66.9 (65.3-68.4)	54.9 (53.4-56.4)	70.1 (68.0-71.5)		
Students who felt sad most of the times or always							
13-17	31.4 (30.8-32.0)	17.5 (16.9-18.2)	44.9 (43.9-45.8)	31.8 (31.1-32.5)	29.0 (28.3-29.7)		
13-15	30.4 (29.7-31.1)	16.1 (15.3-16.8)	44.4 (43.3-45.6)	31.0 (30.2-31.8)	27.6 (26.8-28.4)		
16 and 17	33.1 (32.1-34.1)	20.2 (19.1-21.3)	45.7 (44.2-47.2)	33.2 (32.1-34.4)	32.3 (30.9-33.7)		
Students who felt that nobody cared for them most of the times or always							
13-17	30.0 (29.4-30.6)	19.9 (19.2-20.6)	39.8 (38.8-40.7)	30.7 (29.9-31.4)	25.9 (25.2-26.6)		
13-15	29.4 (28.6-30.2)	18.7 (17.8-19.5)	39.9 (38.7-41.1)	30.1 (29.2-31.1)	25.6 (24.9-26.4)		
16 and 17	31.0 (30.1-31.9)	22.2 (21.0-23.4)	39.5 (38.3-40.7)	31.6 (30.6-2.6)	26.6 (25.1-28.0)		
Students who felt irritated, nervous or in a bad mood most of the times or always							
13-17	40.9 (40.2-41.5)	26.7 (25.9-27.6)	54.6 (53.7-55.5)	40.4 (39.6-41.2)	43.6 (42.8-44.4)		
13-15	39.4 (38.5-40.3)	25.3 (24.3-26.4)	53.0 (51.9-54.2)	38.9 (37.8-39.9)	42.2 (41.3-43.1)		
16 and 17	43.6 (42.7-44.5)	29.3 (28.1-30.5)	57.4 (56.2-58.7)	43.1 (42.1-44.1)	46.9 (45.4-48.4)		
Students who felt that life is not worth living most of the times or always							
13-17	21.4 (20.9-22.0)	13.0 (12.5-13.5)	29.6 (28.7-30.5)	22.3 (21.6-22.9)	16.4 (15.8-17.0)		
13-15	21.2 (20.5-21.9)	12.0 (11.4-12.7)	30.0 (28.9-31.2)	22.0 (21.2-22.9)	16.4 (15.7-17.1)		
16 and 17	21.9 (21.1-22.7)	14.7 (13.8-15.6)	28.9 (27.7-30.1)	22.7 (21.8-23.6)	16.3 (15.4-17.3)		
Students whose mental health self-assessment was negative							
13-17	17.7 (17.2-18.2)	8.0 (7.5-8.5)	27.0 (26.2-27.8)	18.0 (17.4-18.6)	16.0 (15.5-16.6)		
13-15	16.9 (16.3-17.6)	7.0 (6.4-7.6)	26.5 (25.5-27.5)	17.2 (16.5-18.0)	15.3 (14.7-15.9)		
16 and 17	19.1 (18.4-19.9)	9.9 (9.0-10.7)	28.0 (26.8-29.1)	19.3 (18.5-20.1)	17.7 (16.6-18.8)		

% = Prevalence; 95% CI = 95% Confidence Interval

consider themselves sad and are dissatisfied with their relationships with friends and family members can contribute to reducing their social relationships. <sup>14,15</sup> In addition, the poor perception of social relationships is also related to higher prevalence of unhealthy habits such as smoking, alcohol consumption, lower academic performance, greater feelings of sadness and stress and worse mental health status in general. <sup>9,14</sup>

With advancing age, the physical, cognitive and social transition from childhood to adulthood is consolidated, which contributes to a worse perception of

well-being and quality of life. 15 In addition to the social pressures arising from adult social life, especially those related to work, adolescents are also more frequently exposed to risk behaviors such as use of illicit drugs, smoking, alcohol consumption and unhealthy eating, , which may contribute to the development of diseases in adulthood. 17-19

In this research, it was also verified that female adolescents felt sad most of the times or always, as well as irritated, nervous or in a bad mood most of the times,

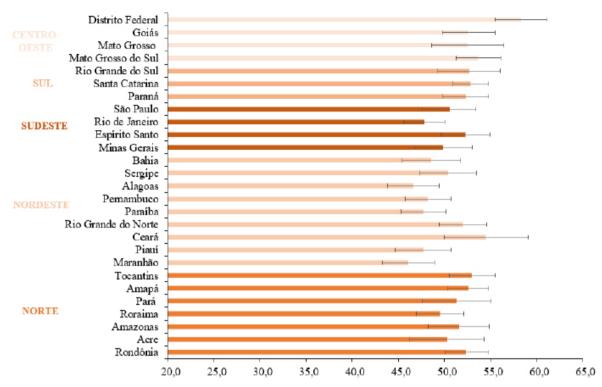


Figure 2 - Prevalence of in-school adolescents aged from 13 to 17 years old who felt sad most of the times or always in the 30 days prior to the survey, according to the Federation Units. National School Health Survey. Brazil, 2019

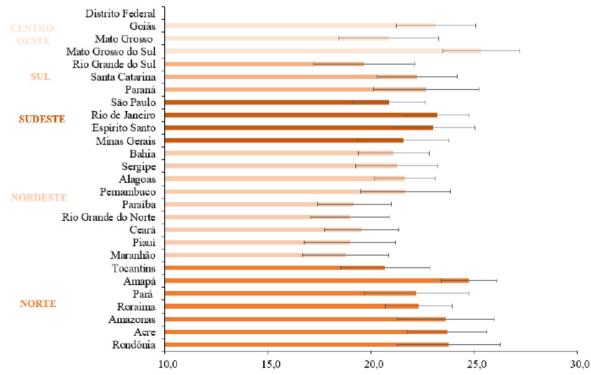


Figure 3 - Prevalence of in-school adolescents aged from 13 to 17 years old whose mental health self-assessment was negative in the 30 days prior to the survey, according to the Federation Units. National School Health Survey. Brazil, 2019

and that they felt that life is not worth living and negatively self-assessed their mental health when compared to male adolescents. Such sufferings are associated with the domination and oppression of gender relations that, structured by machismo, mainly affect the female gender,19 culminating in experiences of violence, sexuality disorders, abusive use of alcohol or other drugs, psychiatric diseases, conflicts, abandonment, bullying, school difficulties or exclusion, and suicide.13 Among the issues faced by female adolescents, there is greater dissatisfaction with their body, which is undergoing transformations and predisposes to a feeling of sadness, increasing the risk of suicidal thoughts and behaviors.3 It is known that building a mature and confident personality in adolescence presupposes a good relationship with their own self, self-image and self-esteem.4 However, girls are more likely to follow a beauty standard according to the current cultural standards, which can be very harmful to their health, causing even girls with an adequate Body Mass Index to be unsatisfied.<sup>20</sup> In addition to that, women perform more household activities and care for others since childhood. Household work is unequally distributed between the genders and can be a factor for illness among women.<sup>21</sup>

This research also verified that the students attending public schools presented higher percentages of the negative mental health indicators. In the same direction, the public school students reported suffering more episodes of physical aggression by a family member,<sup>22</sup> lower demand for health services or professionals<sup>23</sup> and lower prevalence of leisure physical activity<sup>24</sup> when compared to those from private schools. Thus, the school's administrative system exerts an influence on adolescents' mental health, mainly when combined to factors related to social class. The intersection between social class, race/skin color, gender and territory is added to the materialization of inequalities and contributes to shape a narrative that naturalizes discrimination attitudes, rendering them invisible.25

In view of this worrying scenario on adolescents' mental health, which has worsened even more with the COVID-19 pandemic, the United Nations International Children's Emergency Fund (UNICEF) states that, in order to reverse this situation, actions should not only be punctual for mitigation or prevention, but with active mental health promotion through systemic interventions, integrating actions in education, health and social assistance.<sup>26</sup> It is also necessary to

promote welcoming and qualified listening to adolescents; to support schools, mothers, fathers and guardians to break with the stigma on the topic of mental health and promote emotional empowerment; and to integrate these actions with the objective of strengthening public policies that promote well-being and mental health in this age group.<sup>26</sup>

PeNSE is essential to know the risk and protection factors for CNCDs and for surveillance of Brazilian adolescents' health, in addition to being crucial to support the health programs, public policies and actions targeted at controlling and preventing these diseases in adolescents. Therefore, the importance of PeNSE continuity in the country is reinforced, following its triennial frequency, so that monitoring of the adolescents' health indicators can be carried out over the years, especially in the post-pandemic scenario.

The following are considered among the study limitations: the memory bias and the self-applied questionnaire, which can generate incorrect interpretations of the questions in the students. However, PeNSE was based on and can be compared to the main surveys aimed at adolescents in the world, such as the Global School Based Student Health Survey, the Health Behavior in School-aged Children and the Youth Risk Behavior Surveillance System.8 Therefore, PeNSE allows for comparisons with international surveys, which enables improving health promotion strategies and surveillance actions.9 Another limitation is the fact that the research investigates students regularly enrolled and currently attending the Brazilian education networks, excluding the adolescents who do not have this educational bond and who may be more vulnerable. However, PeNSE also encompasses the schools located in indigenous areas and in remote access places. The sample from the 2019 edition was applied, which allowed its disaggregation by large regions, FUs and municipalities of the capital cities. Therefore, even with the limitations, the study is close to the Brazilian reality.

#### CONCLUSION

Brazilian in-school adolescents presented negative indicators related to mental health, such as lack of close friends, sadness and concern. They also reported feeling irritated, nervous or in a bad mood and that life was not worth living. The highest prevalence values of these indicators were found among female students aged 16 and 17 years old and in those attending public schools.

The increase in mental distress among these adolescents evidenced by the results of this study reveals relationships marked by structural gender and social class inequalities. Hence the importance of more investment in public policies in order to reduce the consequences of mental distress among Brazilian adolescents.

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