

Leisure practice in adolescents and associated factors: implications for care

Prática de lazer em adolescentes e fatores associados: implicações para o cuidado

Práctica de actividades recreativas en adolescentes y factores asociados: consecuencias para el cuidado

Lethícia Farias Marcino¹  <https://orcid.org/0000-0002-1064-2424>Bianca Cristina Ciccone Giacon-Arruda¹  <https://orcid.org/0000-0002-8433-6008>Elen Ferraz Teston¹  <https://orcid.org/0000-0001-6835-0574>Albert Schiaveto de Souza¹  <https://orcid.org/0000-0003-0017-672X>Priscila Maria Marcheti¹  <https://orcid.org/0000-0002-1662-4139>Helder de Pádua Lima²  <https://orcid.org/0000-0002-3795-6343>Sonia Silva Marcon³  <https://orcid.org/0000-0002-6607-362X>Nathan Aratani¹  <https://orcid.org/0000-0002-4602-7319>**How to cite:**

Marcino LF, Giacon-Arruda BC, Teston EF, Souza AS, Marcheti PM, Lima HP, et al. Leisure practice in adolescents and associated factors: implications for care. *Acta Paul Enferm.* 2022;35:eAPE02041.

DOI

<http://dx.doi.org/10.37689/acta-ape/2022A002041>

**Keywords**

Adolescent; Leisure activities; Mental health; Quality of life

Descritores

Adolescente; Atividades de lazer; Qualidade de vida; Saúde mental

Descriptorios

Adolescente; Calidad de vida; Actividades recreativas; Salud mental

Submitted

July 29, 2020

Accepted

March 23, 2021

Corresponding author

Bianca Cristina Ciccone Giacon-Arruda
E-mail: biagiakon@gmail.com

Associate Editor (Peer review process):

Ariane Ferreira Machado Avelar
(<https://orcid.org/0000-0001-7479-8121>)
Escola Paulista de Enfermagem, Universidade Federal de São Paulo, São Paulo, SP, Brazil

Abstract

Objective: To relate the performance of leisure activity practices with quality of life, subjective well-being, anxiety, and depression in adolescents.

Methods: This is a quantitative, cross-sectional, analytical study, developed with 272 high school adolescents from three public schools in a center-western capital. Data collection occurred in May 2019 through self-application of four instruments: subjective well-being scale, hospital anxiety and depression scale, kidscren-52 quality of life questionnaire and sociodemographic questionnaire. The association among the independent variables was verified by Student's t-test and Fischer's chi-square test.

Results: Almost half of adolescents (49.6%) performed some leisure activity and it was verified lower scores for depression ($p=0.008$), higher in the positive affects of subjective well-being ($p<0.001$), and for some dimensions of quality of life, such as health and physical activity ($p<0.001$), feelings ($p=0.0046$), emotional status ($p=0.033$), autonomy and free time ($p=0.007$), financial aspect ($p=0.001$) and friends and social support ($p=0.002$). There was no significant association between leisure activity and anxiety scores, negative affects and life satisfaction.

Conclusion: The practice of leisure activities by adolescents is low and is associated with lower scores for depression and higher scores for some dimensions of quality of life and subjective well-being.

Resumo

Objetivo: Relacionar a realização de práticas de atividades de lazer com qualidade de vida, bem-estar subjetivo, ansiedade e depressão em adolescentes.

Métodos: Estudo quantitativo, transversal analítico, desenvolvido com 272 adolescentes do ensino médio de três escolas públicas estaduais de uma capital da região centro-oeste. A coleta de dados ocorreu no mês de maio de 2019, mediante autoaplicação de quatro instrumentos: escala de bem-estar subjetivo, escala hospitalar de ansiedade e depressão, questionário de qualidade de vida kidscren-52 e questionário sociodemográfico. A associação entre as variáveis independentes foi verificada por meio do teste t-student e qui-quadrado de fischer.

Resultados: Quase a metade dos adolescentes (49,6%) realizava alguma atividade de lazer, e nestes foi verificado escores mais baixo para depressão ($p=0,008$), mais alto nos afetos positivos do bem-estar subjetivo ($p<0,001$), e para algumas dimensões da qualidade de vida, tais como saúde e atividade física ($p<0,001$), sentimentos ($p=0,0046$), estado emocional ($p=0,033$), autonomia e tempo livre ($p=0,007$), aspecto financeiro ($p=0,001$) e amigos e apoio social ($p=0,002$). Não houve associação significante entre a prática de atividade de lazer com os escores de ansiedade, afetos negativos e satisfação com a vida.

¹Universidade Federal de Mato Grosso do Sul, Campo Grande, MS, Brazil.

²Universidade Federal de Mato Grosso do Sul, Coxim, MS, Brazil.

³Universidade Estadual de Maringá, Maringá, PR, Brazil.

Conflicts to interest: nothing to declare.

Conclusão: A prática de atividades de lazer por adolescentes é baixa e associa-se a menores escores para depressão e escores mais altos para algumas dimensões da qualidade de vida e bem-estar subjetivo.

Resumen

Objetivo: Relacionar la práctica de actividades recreativas con calidad de vida, bienestar subjetivo, ansiedad y depresión en adolescentes.

Métodos: Estudio cuantitativo, transversal analítico, llevado a cabo con 272 adolescentes de tres escuelas secundarias públicas regionales de una capital de la región centro-oeste. La recopilación de datos se realizó en el mes de mayo de 2019, mediante la autoaplicación de cuatro instrumentos: escala de bienestar subjetivo, escala hospitalaria de ansiedad y depresión, cuestionario de calidad de vida KIDSCREEN-52 y cuestionario sociodemográfico. La asociación entre las variables independientes se verificó a través del test-T student y ji cuadrado de Fischer.

Resultados: Casi la mitad de los adolescentes (49,6 %) realizaba alguna actividad recreativa, en los que se verificó puntuación más baja de depresión ($p=0,008$), más alta en los afectos positivos de bienestar social subjetivo ($p<0,001$), y en algunas dimensiones de calidad de vida, tales como salud y actividad física ($p<0,001$), sentimientos ($p=0,0046$), estado emocional ($p=0,033$), autonomía y tiempo libre ($p=0,007$), aspecto financiero ($p=0,001$) y amigos y apoyo social ($p=0,002$). No hubo relación significativa entre la práctica de actividades recreativas y la puntuación de ansiedad, afectos negativos y satisfacción con la vida.

Conclusión: La práctica de actividades recreativas de adolescentes es baja y se relaciona con una menor puntuación de depresión y una mayor puntuación en algunas dimensiones de la calidad de vida y el bienestar subjetivo.

Introduction

Adolescence is a phase marked by the association of individual, collective, family, social, political and economic factors, which directly impact the health production of this population.⁽¹⁾ Thus, the greater the exposure to risk factors and situations of vulnerability, the greater the possibility of mental illness and interference in individual development, attitudes, behaviors and social relationships in adulthood.⁽¹⁻³⁾

On the other hand, factors such as autonomy, self-esteem, religiosity and spirituality, leisure and subjective well-being, family and social support, optimism and creativity act as protectors of the young's mental health because they involve positive feelings, greater satisfaction and better quality of life.^(4,5)

In particular, it has been identified that leisure, understood as a set of activities performed in free time, i.e., after obligations related to work or study, is considered a form of rest and recreation, and, therefore, provides well-being, quality of life, and health.⁽⁶⁾

The development of art activities and physical exercises, such as leisure activities, is associated with higher scores of quality of life, subjective well-being and satisfaction with life.^(4,5,7) Moreover, sports directly influence the development of a healthy life, especially in the long term, with physical exercise habits in adulthood.^(7,8) Furthermore, it is also a

strategy for establishing social life which contributes to mental health.⁽⁹⁾

Although the benefits of leisure activities in physical and mental health are a consensus in scientific literature, there was a scarcity of studies exploring the association between leisure practice and quality of life, subjective well-being and mental illness in adolescents.

It is believed that deepening knowledge on this topic can contribute to the elaboration, implementation and introduction of educational actions by nurses and, in the macro context, public policies for health promotion and prevention of injuries directed at the adolescent population, especially in relation to mental health. Thus, the present study aimed to relate the performance of leisure activity practices with quality of life, subjective well-being, anxiety and depression in adolescents.

Methods

This is a quantitative, cross-sectional, analytical study, conducted at three public schools in the state capital of Mato Grosso do Sul, selected for convenience because they constitute the field of activity of the university and are located in a region of high social vulnerability.

Regarding the characteristics of the three schools, all offered classes of high school students

in the three periods, constituted: 1) seven classes and average of 230 students enrolled; 2) 22 classes and average of 640 students enrolled; 3) 14 classes with an average of 520 students enrolled. All schools offered complementary activities, such as wrestling, gymnastics, sports games and music classes.

For the selection of participants, non-probabilistic sampling and inclusion criteria were adopted: being between 15 and 18 years old and being regularly enrolled in high school in one of the three schools during the day (morning and evening). In turn, exclusion criteria were: absence on days intended for data collection and altered cognitive capacity due to effects of alcohol or drugs, or to some health condition.

Data were collected by self-application of four instruments occurred in May 2019, during the school shift, in a single day and time defined by the school coordination, in order to interfere as little as possible in teaching activities. The average time to fill in the classes was 40 minutes.

The procedures for data collection involved: a) meeting with the principals of the schools that were in charge of presenting the proposal to the teachers; b) meeting with the adolescents to present the objectives of the study and the type of desired participation. For all those who were interested, two types of Informed Consent Form (ICF) were given for students under 18 years of age and their guardians.

Among the total of 332 students who met the inclusion criteria and were invited, three were excluded due to cognitive impairment at the time of data collection due to the use of alcohol and other drugs, and 57 were not present on the day of collection or did not present the ICF.

The four instruments used in data collection were:

- A. Questionnaire of socioeconomic characterization of adolescents, elaborated by the authors, containing: sex, date of birth/age, color, place of birth, education, work, with whom they live, marital status, children, and leisure activity.
- B. Subjective Well-Being Scale (SWS), validated in Brazil, consisting of 62 items divided into

three subscales, 21 of positive affect, 26 of negative affect and 15 of satisfaction with life. The answers are presented on a five-point Likert scale (ranging from 1 [not at all] to 5 [extremely]).⁽¹⁰⁾ For analysis, the total points achieved by each individual was divided by the number of questions, being considered high score when equal to or greater than three and low when less than three, in the three subscales.

- C. Hospital Anxiety and Depression Scale (HADS), composed of 14 items (seven that assess anxiety and seven depression). The answers are presented on a 4-point Likert scale (zero to three), with a maximum score in each sub-scale of 21 points.⁽¹¹⁾ Analysis is carried out on each subscale scale, being considered the following intervals for assessing anxiety and depression levels: 0 to 7: unlikely; 8 to 11: questionable/doubtful; 12 to 21: probable. However, HADS indicates the hospital environment in its title, other studies have already used it in the general population (adolescents, adults and the elderly) and in other contexts, indicating its applicability.^(12,13)

- D. KIDSCREEN Quality of Life Questionnaire - 52, consisting of 52 questions, directed to the perception of ten dimensions of quality of life. It is a Likert response scale of one to five points to assess each dimension and, the higher the score, the higher the quality of life.⁽¹⁴⁾

Data were scanned, double-entered and organized in a Microsoft Office Professional Plus Excel 2016^R spreadsheet and later analyzed by descriptive and inferential statistics, with Student's t-test and Pearson's chi-square test in the Statistical Package for the Social Sciences (SPSS), version 23.0, considering a significance level of 5%.

This study is part of a larger study entitled "*Saúde mental, qualidade de vida e bem-estar subjetivo de adolescentes do ensino médio*", which was approved by the Institutional Review Board of *Universidade Federal do Mato Grosso do Sul*, under Opinion 3.231.242 (CAAE: 07702619.2.0000.0021), respecting all national and international standards of ethics in research with human beings.

Results

The study included 272 students, most of them female (62.5%), aged between 15 and 18 years, single (96.3%) and brown (64.3%). In relation to those living with someone, 45.2% lived with their father and mother, 23.5% with their father or mother and 30.5% with others (uncle, aunt, grandmother, grandfather, among others). Of the total, 0.7% reported having children, 16.1% performed paid work activities, and 6.3% had some disease, disability and/or chronic medical problem, with respiratory disease being the most reported. There was no discrepancy in relation to the number of students per school year from the first to the third, being 34.9%, 36.4% and 28.7%, respectively.

Leisure practice was reported by 49.6%, and physical or sport (78.5%) were mentioned such as fighting practice, gym, walking, football, volleyball, gymnastics and cycling; electronic activities (17%) that involved playing on the phone, watching videos, television, series and games; cultural activities (14%) such as reading, dancing, listening to music, playing musical instruments, visiting city venues, studying and taking courses; walking with friends and family in the mall, drinking “*tererê*” (typical drink of the state) and going to the family home (7.4%). Also, 7.4% of participants indicated other activities and 1.5% did not define it.

It is observed in Table 1 that individuals who practice some leisure activity have lower scores for depression ($p=0.008$) and higher for positive affects ($p<0.001$).

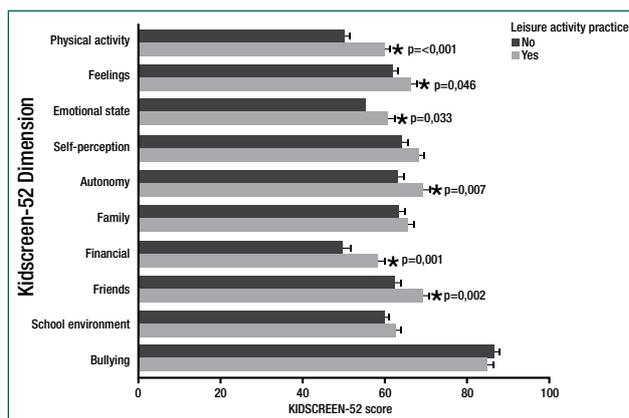
Table 1. Association between leisure activity and anxiety, depression, and subjective well-being scores

Variables	Leisure activity practice				P value***
	Yes		No		
	n	X* Y**	n	X* Y**	
Anxiety and depression					
Anxiety†	134	8.84±0.39	130	9.39±0.41	0.328
Depression	134	7.32±0.34	130	8.62±0.35	0.008
Subjective well-being					
Positive affection	124	2.98±0.07	124	2.54±0.06	<0.001
Negative affection	125	2.58±0.07	121	2.56±0.07	0.831
Life satisfaction	120	3.09±0.03	121	3.05±0.03	0.752

X* - Mean; Y** - Standard error; P value*** - Significance referring to Student's t-test

In Figure 1, it is observed that adolescents who practice leisure activity have higher scores for quali-

ty of life in health and physical activity ($p<0.001$), feelings ($p=0.046$), emotional state ($p=0.033$), autonomy and free time ($p=0.007$), financial aspect ($p=0.001$) and friends and social support ($p=0.002$) dimensions.



The results are presented in ± standard error of the mean, p value in Student's t-test

Figure 1. Association between leisure activity and quality of life

Table 2 presents the results of the assessment of the association between the practice of leisure activity and the classification of students in relation to sex, depression, anxiety and subjective well-being factors.

Table 2. Association between leisure activity with sex, depression, anxiety and subjective well-being

Variable	Leisure activity practice		P value*
	Yes n(%)	No n(%)	
Sex (n=267)			
Male	61(60.4)	40(39.6)	0.009
Female	73(44.0)	93(56.0)	
Depression (n=264)			
Without	86(58.1)	62(41.9)	0.007
With	48(41.4)	68(58.6)	
Anxiety (n=264)			
Without	63(52.5)	57(47.5)	0.605
With	71(49.3)	73(50.7)	
Subjective well-being			
Positive affection (n=248)			
Low	59(40.4)	87(59.6)	0.001
High	65(63.7)	37(36.3)	
Negative affection (n=246)			
Low	80(47.6)	88(52.4)	0.141
High	45(57.7)	33(42.3)	
Life satisfaction (n=241)			
Low	46(51.1)	44(48.2)	0.752
High	74(49.0)	77(51.0)	

The results are presented in relative frequency (absolute frequency); p value*** = Significance for p value in chi-square test

There was no significant association between leisure activity and anxiety, negative affects and life satisfaction.

Discussion

The study limitation refers to the intentional composition of the sample of adolescents under study, since they were identified from three schools located in the same region of the municipality, which is characterized by low socioeconomic power. Thus, conducting new studies with adolescents living in other areas with socioeconomic, territorial characteristics and with greater investment in public policies of sport and leisure is important.

This study provides support for planning health actions that encourage the practice of leisure activities by adolescents, especially physical activity, considering it as a protective factor for mental health, which positively favors quality of life and well-being. Moreover, the results are given the opportunity to reflect on the need for public policies beyond health, such as sports and leisure, which allow access, motivation and encouragement to this population.

The results indicated that almost half of participants reported performing leisure activity, with physical activity being the most reported. However, scientific literature indicates that the practice of physical activity by adolescents is low.^(2,9,15,16) A study conducted with data from 298 surveys in schools in 146 different countries, totaling a sample of 1.6 million students aged 11 to 17 years, showed that 81% of this population studied performed insufficient physical activity when compared to WHO recommendations.⁽⁹⁾ This raises the need for intersectoral actions that favor the motivation of adolescents to carry them out, especially because, incentives at this stage of development have shown positive results in behavior change also in adulthood.⁽⁹⁻¹⁷⁾

Considering this aspect, the Global Physical Activity Action Plan defends the importance in carrying out this to prevent and treat non-communicable diseases, in addition to improving mental health, quality of life and well-being. It also points

out that physical and leisure activity, such as games and recreation, are important at all ages. In childhood and adolescence, it contributes to healthy growth and development.⁽²⁾

A study conducted in Minas Gerais found that 35.5% of the young people who participated in a Sports and Leisure Program reported fewer diseases than those (50.9%) who did not participate.⁽¹⁸⁾ Still in this direction, a study that assessed 72 adolescents from elementary school found that performing physical activity at least three times a week improves “cardiorespiratory and cardiovascular aptitudes, besides providing several physical, psychological and social benefits”.⁽¹⁹⁾

The association of physical activity practice with higher scores of positive affects, which include joy, enthusiasm, pride and happiness, reiterates the importance of stimulating the practice of these activities for this audience, especially because these affections directly imply mental health. Moreover, in adolescence, affections are experienced with greater intensity due to the biopsychosocial changes that occurred during this period, and emotions will reflect on well-being and, consequently, on quality and satisfaction with life.⁽²⁰⁾

The practice of leisure activities, in turn, positively influences quality of life and subjective well-being. Leisure activities provide fun and offer opportunities for social relations and personal improvement, favoring the improvement of cognition, self-esteem, feelings of well-being, and socialization. Moreover, the association of these factors acts as an adjunct in the containment of risk factors for mental illness and physical.⁽¹⁸⁾

Elevated subjective well-being in adolescence also contributes to a healthy adult life, physically and mentally, in addition to greater chances of individuals controlling their emotions and developing self-care actions.⁽²¹⁾

Having said that, it is reiterated that quality of life and subjective well-being have characteristics that can provide changes in adolescents’ lifestyle, especially in the psychosocial aspect, by promoting positive feelings and healthy lifestyles, which function as a protective factor. On the other hand, low quality of life, positive affects and

well-being are related to higher levels of depression and anxiety.⁽²²⁾

In this sense, in addition to encouraging leisure exercises, such as physical activity, other factors need to be considered in planning strategic actions aimed at adolescents, such as demotivation, time organization, lack of company, accumulation of daily tasks, lack of incentive at home by family members, difficulty in commuting, absence of adequate and free places, and safety.^(8,16,23)

Moreover, it was observed that adolescents who practice some leisure activity presented lower scores for depression. It should be noted that this disease generates numerous risks to adolescents' mental health, from the increase in the difficulty of social interaction, distancing, rejection of their peers and feeling of loneliness, to those more severe, such as suicide.⁽²⁴⁾ Additionally, in the context of general life, depression negatively influences quality of life and well-being.⁽²²⁾

A meta-analysis study showed that, regardless of the location of housing or age, physical activity functions as a factor to prevent depression as well as in reducing symptoms in depressed individuals.⁽²⁵⁾ Similarly, a study conducted with 269 adult individuals from Karachi city, Pakistan, showed an association between physical activity and lower frequency of anxiety and depression.⁽²⁶⁾

In Campo Grande - MS, a study identified that the implementation/creation of green areas contributes positively to the physiological and psychological aspects of the population. In these places, individual and collective health promotion actions and activities are implemented, besides favoring the harmonic relationship between man and nature. The authors concluded that these spaces provide better quality of life, well-being and leisure to the local population and visitors.⁽²⁷⁾

It is worth mentioning that high prevalence of risk factors for cardiovascular diseases in university students, such as smoking, alcohol consumption, sedentary lifestyle, unbalanced diet and overweight, evidence a warning, because most of these habits tend to be consolidated in adulthood, contributing to the development of chronic diseases earlier.⁽²⁸⁾

The results of the aforementioned studies reinforce the importance of public policies aimed at adolescents, especially those that favor access to leisure activities. The promotion of group educational actions and health promotion should be initiated as early as possible so that individuals have greater adherence to healthy habits. Moreover, nursing consultation directed to this public needs to give special focus in relation to these aspects, mainly because inadequate lifestyle habits influence self-image and therefore mental health.

In the context of intersectoral public policies (education and health), the School Health Program (PSE – *Programa Saúde na Escola*) is a valuable tool for developing joint strategies that favor motivation and recognition of the need for change in lifestyles, such as physical activity.⁽²⁹⁾ Furthermore, actions that favor mental health promotion and reinforce the recognition of protective factors for a good quality of life and positive affects need to be planned and implemented continuously. Thus, considering that nursing, together with the Family health team, has the possibility of developing actions in extra-walled environments, the opportunity to gather and attract the young population to the promotion and prevention services in health unit stands out.

In view of this, nursing plays a fundamental role in the occupation of different social spaces with a view to discussing the implementation of public policies, as well as in the articulation between the different sectors, such as health and education. Nursing professionals, knowing the policies, actions, vulnerability by which this adolescent is exposed and needs, play an important role in fulfilling these actions and monitoring adolescents' mental health, especially in PHC.^(1,30) Also, because it occupies spaces of representation in different social resources, it needs to problematize the issues related to the services offered and the specific demands of this population.

However, some factors hinder the implementation of these actions, such as low compliance of adolescents, who rarely seek a Basic Health Unit, the lack of specific training to address and act with this public as well as sufficient resources that attract

attention and strategies/approaches that favor the role of adolescents.⁽³¹⁾

It is also important that nurses develop care skills and practices, considering the different contexts and determinants that may be associated with the health-disease process, giving new meaning to the conceptions of adolescence, developing sensitive and accessible listening, and actions that enable adolescents to be leaders in their disease health process.^(1,30)

Thus, it is necessary to rethink the work processes of primary care professionals and health teams in the care of adolescents, seeking to strengthen intersectoral partnerships, in addition to proposing actions in the territory and not only concentrated in health equipment,⁽³²⁾ since it is one of the main actors in the articulation between the health and education sectors, important contexts in health promotion and prevention. Finally, one aspect that cannot be forgotten is the involvement, as much as possible, of family and friends, or at least, that considers the family context in the propositions.⁽³³⁾

Therefore, this study demonstrated the importance of applying public policies and monitoring this public more closely, aiming not only at their physical health, but also at mental health. And, it is believed that this study may serve as a support for further research on the theme addressed.

Conclusion

It was identified that more than half of the adolescents in the study did not perform leisure activities, whose practice was associated with better quality of life and subjective well-being and lower depression scores.

Collaborations

Marcino LF, Giacon-Arruda BCC, Teston EF, Souza AS, Marcheti PM, Lima HP, Marcon SS, Aratani N contributed to conception and design, data analysis and interpretation, writing of the article or relevant critical review of intellectual content, final approval of the version to be published.

Acknowledgments

This study was financed in part by the Fundação Universidade Federal de Mato Grosso do Sul – UFMS/MEC – Brazil, and the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior - Brasil (CAPES) – Finance Code 001.

References

1. Gasparetto AS, Bonfim TA, Teston EF, Marcheti PM, Galera SA, Giacon-Arruda BC. Contexts of vulnerabilities experienced by adolescents: challenges to public policies. *Rev Bras Enferm.* 2020;73(Suppl 4):e20190224.
2. World Health Organization. Global action plan on physical activity 2018–2030: more active people for a healthier world. Geneva: WHO; 2018 [cited 2021 Mar 10]. Available from: <https://www.who.int/ncds/prevention/physical-activity/global-action-plan-2018-2030/en/>
3. Zinn ME, Huntley ED, Keating DP. Resilience in adolescence: Prospective Self moderates the association of early life adversity with externalizing problems. *J Adolesc.* 2020;81:61-72.
4. Lima RF, Morais NA. Subjective well-being of children and adolescents: integrative review. *Cienc Psicol.* 2018;12(2):249-60.
5. Otto C, Haller AC, Klasen F, Hölling H, Bullinger M, Ravens-Sieberer U; BELLA study group. Risk and protective factors of health-related quality of life in children and adolescents: results of the longitudinal BELLA study. *PLoS One.* 2017;12(12):e0190363.
6. Beserra EP, Sousa LB, Alves MD, Gubert FA. Percepção de adolescentes acerca de suas atividades de vida, trabalho e lazer. *Rev Enfermagem UERJ.* 2015;23(5):627-32.
7. Jalali-Farahani S, Amiri P, Torshizi K, Cheraghi L, Avatefazel M, Azizi F. Association of leisure and occupational physical activities and health-related quality of life: Tehran Lipid and Glucose Study. *Health Qual Life Outcomes.* 2020;18(1):13.
8. Guthold R, Stevens GA, Riley LM, Bull FC. Global trends in insufficient physical activity among adolescents: a pooled analysis of 298 population-based surveys with 1.6 million participants. *Lancet Child Adolesc Health.* 2020;4(1):23-35.
9. Shah P, Southerland JL, Slawson DL. Social Support for Physical Activity for High Schoolers in Rural Southern Appalachia. *South Med J.* 2019;112(12):626-33.
10. Albuquerque AS, Tróccoli BT. Desenvolvimento de uma escala de Bem-Estar Subjetivo. *Psic Teoria Pesq.* 2004;20(2):153-64.
11. Botega NJ, Bio MR, Zomignani MA, Junior CG, Pereira WA. Transtornos do humor em enfermaria de clínica médica e validação de escala de medida (HAD) de ansiedade e depressão. *Rev Saúde Pública.* 1995;29(5):355-63.
12. Barbosa LN, Asfora GC, Moura MC. Anxiety and depression and psychoactive substance abuse in university students. *Rev Eletr Saude Mental Alcool Drog.* 2020;16(1):1-8.
13. Ribeiro RP, Marziale MH, Martins JT, Ribeiro PH, Robazzi ML, Dalmas JC. Prevalence of Metabolic Syndrome among nursing personnel and its association with occupational stress, anxiety and depression. *Rev Lat Am Enfermagem.* 2015;23(3):435-40.

14. Guedes DP, Guedes JE. Translation, cross-cultural adaptation and psychometric properties of the kidscreen-52 for the brazilian population. *Rev Paul Pediatr*. 2011;29(3):364-71.
15. Cureau FV, Silva TL, Bloch KV, Fujimori E, Belfort DR, Carvalho KM, et al. ERICA: leisure-time physical inactivity in Brazilian adolescents. *Rev Saúde Pública*. 2016;50(Suppl 1):4s.
16. Silva J, Andrade A, Capistrano R, Lisboa T, Andrade RD, Felden EP, et al. Níveis insuficientes de atividade física de adolescentes associados a fatores sociodemográficos, ambientais e escolares. *Ciênc Saúde Coletiva*. 2018;23(12):4277-88.
17. Corepal R, Tully MA, Kee F, Miller SJ, Hunter RF. Behavioural incentive interventions for health behaviour change in young people (5-18 years old): a systematic review and meta-analysis. *Prev Med*. 2018;110:55-66.
18. Tolocka RE, Ramos EP, Peruchi LP. Saúde e atividades de lazer de jovens no ensino médio. *Rev Aten Saúde*. 2019;17(59):39-43.
19. Zawadzki D, Stiegler NF, Brasílio FF. Aptidão e atividade física relacionados à saúde de adolescentes entre 11 e 14 anos. *Rev Bras Presc Fisiol Exerc*. 2019;13(83):444-53.
20. Oliveira AJ, Sena AC, Martins AG. O bem-estar subjetivo em adolescentes: afetos positivos e afetos negativos. *Rev Eletr Estácio Papirus*. 2018;5(1):69-82.
21. Silva GD, Dell'Aglio DD. Avaliação do bem-estar subjetivo em adolescentes: relações com sexo e faixa etária. *Análise Psicológica*. 2018;36(2):133-43.
22. Pinto AV, Cavalcanti JG, Araújo LS, Coutinho ML, Coutinho MP. Depressão e adolescência: relação com qualidade de vida e bem-estar subjetivo. *Rev Psicologia IMED*. 2018;10(2):6-21.
23. Dias DF, Loch MR, Roque RR. Perceived barriers to leisure-time physical activity and associated factors in adolescents. *Ciênc Saúde Coletiva*. 2015;20(11):3339-50.
24. Grolli V, Wagner FM, Dalbosco SN. Sintomas depressivos e de ansiedade em adolescentes do ensino médio. *Rev Psicologia IMED*. 2017;(1):87-103.
25. Schuch FB, Vancampfort D, Firth J, Rosenbaum S, Ward PB, Silva ES, et al. Physical Activity and Incident Depression: A Meta-Analysis of Prospective Cohort Studies. *Am J Psychiatry*. 2018;175(7):631-48.
26. Khanzada FJ, Soomro N, Khan SZ. Association of physical exercise on anxiety and depression amongst adults. *J Coll Physicians Surg Pak*. 2015;25(7):546-8.
27. Melo MR, Bega LR, Taveira NM, Mattos AB. Parque das Nações Indígenas: área de interesse turístico, qualidade de vida e lazer na cidade de Campo Grande – MS. *Rev Turismo Contemporâneo*. 2015;3(2):299-317.
28. Back IR, Dias BC, Batista VC, Ruiz AG, Peruzzo HE, Druciak CA, et al. Fatores de risco para doenças cardiovasculares em universitários: diferenças entre os sexos. *Ciênc Cuid Saúde*. 2019;18(1):e40096.
29. Lopes IE, Nogueira JA, Rocha DG. Eixos de ação do Programa Saúde na Escola e Promoção da Saúde: revisão integrativa. *Saúde Debate*. 2018;42(118):773-89.
30. Santos JS, Andrade RD, Silva MAI, Mello DF. Nurse to adolescent health communication process: approach to Event History Calendar. *Rev Bras Enferm*. 2020;73(3):e20180454.
31. Vinagre MG, Barros L. Preferências dos adolescentes sobre os cuidados de saúde. *Ciênc Saúde Coletiva*. 2019;24(5):627-36.
32. Barreto RM, Cavalcante AS, Mira QL, Vasconcelos MI, Brito MC. Ações educativas em saúde para o público adolescente: uma revisão integrativa. *Rev APS*. 2016;19(2):277-85.
33. Lisboa T, Silva WR, Alexandre JM, Beltrame TS. Suporte social da família e amigos para a prática de atividade física de adolescentes: uma revisão sistemática. *Cad Saúde Coletiva*. 2018;26(4):351-9.