Crimson Publishers
Wings to the Research

Research Article

Physical Exercise Practiced by Adolescents Students

Zarallo GR, Chamorro MZC*, Luque AG and Prado MS

Department of Nursing, Spain

Abstract

Introduction: Physical inactivity or sedentary lifestyle is the fourth risk factor for global mortality and one of the main risk factors for chronic noncommunicable diseases. In Europe and worldwide, a significant proportion of young people and adults have sedentary or low physical activity habits.

Objective: To explore the prevalence, frequency and type of physical exercise practiced by adolescent students in Extremadura (Spain) between 14 and 21 years of age, as well as the perceived barriers to not performing physical exercise.

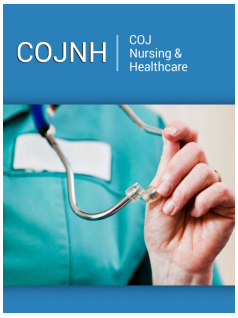
Methods: Descriptive cross-sectional study. The sample was formed by public high school and university students from Extremadura in Cáceres, from 14 to 21 years old. On May of 2018, sociodemographic and questions related to practice of physical exercise data were collected. Chi square was used for the qualitative variable, in the bivariate analysis.

Result: 56 adolescent students have participated. 74.1% of students indicate that they practice physical exercise normally. Statistically significant differences were detected between gender and exercise practice ($p<0.05$). 24.1% of the participants chose running, 12.1% walking, 17.2% go to gym to perform muscle exercises and 12.1% play football, followed by other sports in smaller proportion. Regarding if they have any impediment to perform physical exercise due to injury, illness or lack of time, 19% indicated it.

Conclusion: Although most adolescents practice physical exercise, with a frequency of at least two or three days a week and the most frequent exercises among adolescents are running, walking and going to the gym, it is necessary to continue promoting healthy lifestyle habits related to the practice of physical exercise, especially in the female gender.

Keywords: Students; Adolescent; Sports; Exercise; Physical activity; Prevalence

ISSN: 2577-2007



***Corresponding author:** Chamorro MZC, Department of Nursing, Spain

Submission: March 1, 2019

Published: February 7, 2020

Volume 6 - Issue 1

How to cite this article: Zarallo GR, Chamorro MZC, Luque AG, Prado MS. Physical Exercise Practiced by Adolescents Students. COJ Nurse Healthcare.6(1). COJNH.000626.2020.
DOI: 10.31031/COJNH.2020.06.000626.

Introduction

According to the definition of the World Health Organization (WHO) [1], physical activity refers to any activity that involves body movement produced by the skeletal muscles, with the corresponding expenditure of energy. For example, moving to school or work, playing, domestic chores, etc. Do not confuse the term exercise with physical activity, this is a subcategory of physical activity, is structured, is repetitive and aims to improve one or more components of the physical state [1,2].

Physical activity is along with nutrition, an important component to adopt a healthy lifestyle [3,4]. Since practicing physical activity on a regular basis of both moderate and intense intensity reports important health benefits [1].

In particular, practicing physical activity regularly and at adequate levels improves bone, muscle and cardiorespiratory status, reduces the risk of hypertension, coronary heart disease, stroke, diabetes, different types of cancer (such as breast and colon cancer) and depression, it is also essential for energy balance and weight control [1,5].

The WHO [1] recommends that children and adolescents from 5 to 17 years old should practice at least 60 minutes a day of moderate or intense physical activity. For adolescents and adults (between 18 and 64 years old) it is recommended to practice at least 75 minutes per week of vigorous intensity physical activity or 150 minutes per week of moderate intensity physical activity or a combination of both. With more than 300 minutes per week, greater health benefits would be obtained. It is advisable to perform muscle strengthening activities

2 or more days a week exercising large muscle groups. People who do not meet these criteria are classified as physically inactive or sedentary [1,2,5].

Physical inactivity or sedentary lifestyle is the fourth risk factor for global mortality and one of the main risk factors for chronic noncommunicable diseases, such as diabetes, obesity, cancer or cardiovascular diseases. Therefore, it is an important public health problem [1,6,7]. In Europe and worldwide, according to recent surveys, a significant proportion of young people and adults have sedentary or low physical activity habits, and therefore do not comply with WHO [1] recommendations [8-10].

These data are of concern in adolescents [11], since it has been observed that the behavior patterns related to physical activity in adolescents are associated with those that they will later maintain in adulthood [4,12]. In response to this alarming global pandemic [10], WHO has suggested monitoring levels of physical activity and implementing strategies that can help increase these levels [2]. For this it is necessary to take into account a series of determinants or factors that influence the practice of exercise, which can be considered as barriers, depending on age and gender, and others such as professional or domestic activity, loads academic, smoking habit, important vital moment, climatic conditions, among others [3,13-17]. Therefore, the objective of this study is to describe the prevalence of adolescent physical activity, and to explore the frequency and type of physical exercise practiced by adolescent students in Extremadura (Spain) between 14 and 21 years of age, as well as the perceived barriers to not performing physical exercise.

Methods

Design

Cross-sectional descriptive study.

Sample

The study population was composed of high school and university students from the University of Extremadura in Cáceres (Spain), of both sexes between 14 and 21 years old. Sampling was not probabilistic for convenience.

Data collection

On May of 2018, the students responded during the class in which the teachers gave their permission. All the participants agreed to participate in the study, signing the informed consent.

Instruments used

A self-administered questionnaire with five questions about the practice of physical exercise with multiple answers and two questions about sociodemographic data (age and gender).

Data analysis

The statistical package SPSS (version 23.0) was used for the statistical analysis. The results of the descriptive analysis are represented as frequencies and percentages in the case of qualitative variables. Bivariate analysis was performed by Chi-squared for qualitative variables. Cramer's V was chosen as association magnitude. Odds ratios (or) with 95% confidence intervals (CI) were calculated to estimate the associations between gender and the realization of physical exercise. A confidence level of 95% ($p<0.05$) was accepted for all statistical analysis.

Result

A total of 56 students participated by completing the survey. 69% were women, and the predominant age was 17-21 years (86.2%). 74.1% of students indicate that they practice physical exercise normally (Figure 1). Statistically significant differences were detected between gender and exercise practice ($p<0.05$) and where the probability of a man practicing physical exercise with respect to the woman is 5 times greater (OR=:5,930, 95% CI [0.8-40.8]). Women in a greater proportion do not practice exercise 24.1%, compared to 1.7% of men. 43.1% of the adolescents practice exercise with a frequency of a few days a week, followed by the 31% that they practice daily (Figure 2).

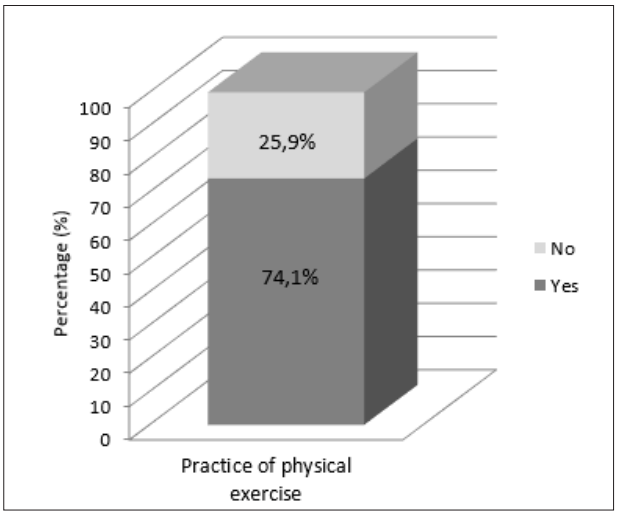


Figure 1: Practice of physical exercise frequently among adolescents.

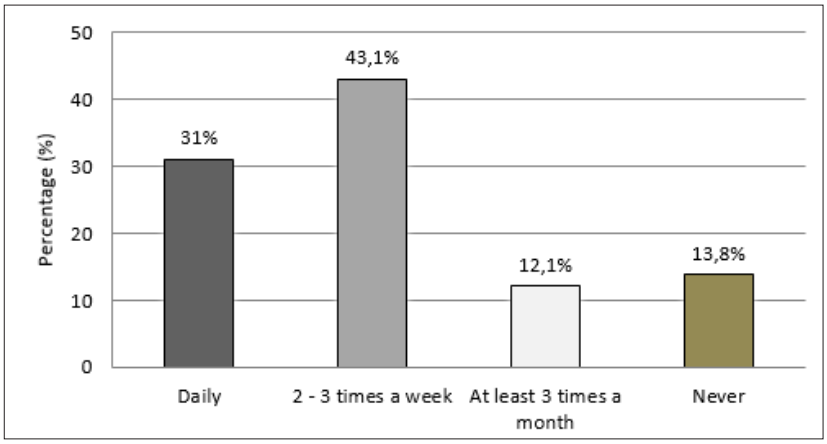


Figure 2: Frequency of practice of physical exercise frequently among adolescents

Among all the exercise options, 24.1% of the participants chose running, 12.1% walking, 17.2% go to gym to perform muscle exercises and 12.1% to play football, followed by other sports in smaller proportion (Figure 3).

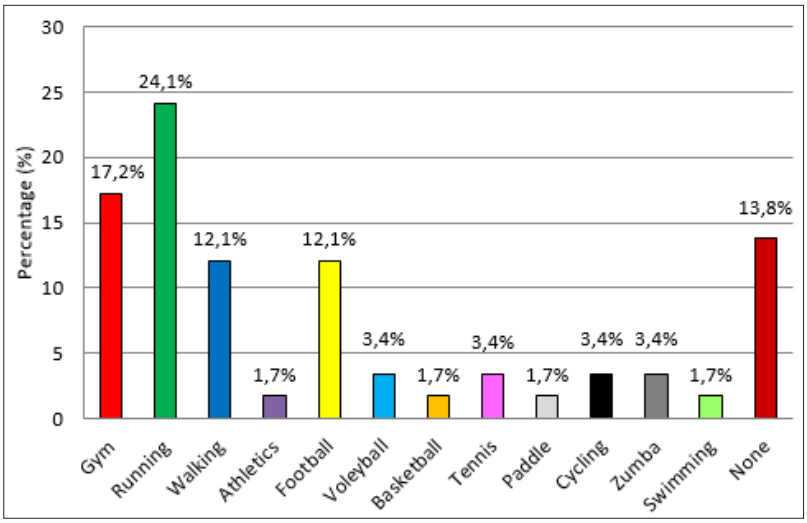


Figure 3: Type of physical exercise that adolescent's practice.

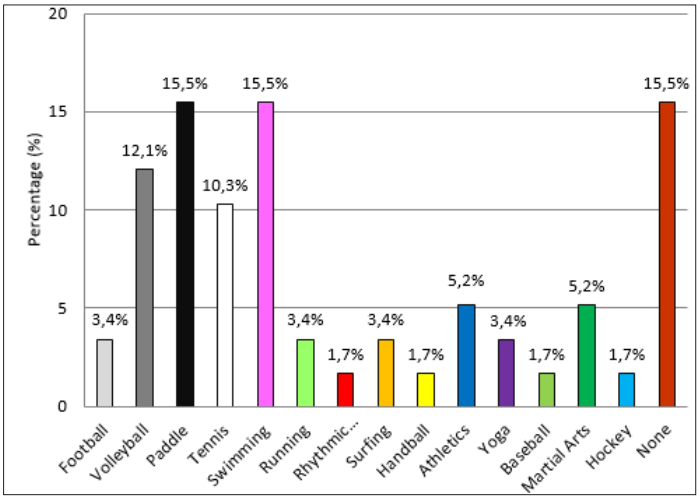


Figure 4: Type of physical exercise that teenagers would like to practice.

There was a statistically significant difference between the exercise frequency and the type of exercise practiced (p=.000), with a moderate effect size (V=0.667). Among the sports that they would like to practice are paddle (15.5%), swimming (15.5%), volleyball (12.1%) and tennis (10.3%), followed by other sports in lower percentage (Figure 4).

Regarding if they have any impediment to perform physical exercise due to injury, illness or lack of time, 19% indicated it. There are no statistically significant differences with respect to the performance of physical exercise.

Discussion

The results obtained in this study with respect to the prevalence of physical exercise in adolescents are very similar to those obtained in a study conducted in Spain with 372 young people from 13 to 25 years old, where almost 70% average practice of less three or more times in week exercise [18], compared to 74% in our study. Another study conducted in Huelva (Spain) indicates that 42% of university students practice physical activity [19]. Therefore, it stands out that in late adolescence a good habit of physical activity is maintained. Although worldwide surveys indicate a low level of physical activity practice [1,2,6,8-10]. It is noteworthy that the female gender practices less physical activity, and as indicated by other surveys they have more sedentary habits than men [4,8,9,18-20].

As in similar studies carried out in Spain, the type of exercise most practiced was running, walking, going to the gym to do bodybuilding exercises and play football. Although these studies also include other sports such as swimming and basketball [18,19]. Football is a sport very practiced by teenagers since it is a social phenomenon. Practicing team sports involves, as in the case of football, combining intense and moderate intensity activities such as races, jumps or sprints for 90 minutes [21].

In this work, it has been possible to corroborate that students would like to practice team sports such as paddle tennis, swimming, volleyball or tennis. This may be because these are popular sports practices around the world [21]. In our case, a low proportion of participants indicated that they had some impediment or barrier to practice physical exercise such as lack of time or injury. Coinciding with the main reasons for sports abandonment are school or occupational burdens, lack of time and the presence of injury in other studies [18,22].

The size of the sample, the variables studied not based on internationally validated questions and the possibility of participation bias in which students who do not practice exercise do not want to answer suppose the limitation in the present study. Even so, the results of the current cross-sectional study contribute to continue research on the specific frequency of more methodical physical activity through mobile applications, other activities added such as the method of transport to the institute or university.

Conclusion

In response to the objectives established in this study, it should be noted that most adolescents practice physical exercise, and with a frequency of at least two or three days a week. The female sex is more inactive than the male. The most frequent exercises among teenagers are running, walking and going to the gym and would like to practice team sports such as paddle tennis, swimming, tennis and volleyball. These findings seem encouraging, but it is necessary to continue promoting healthy lifestyle habits related to the practice of physical exercise, especially in the female gender.

References

1. World Health Organization (2010) Global recommendations on physical activity for health. World health organization Geneva, Switzerland.
2. Medina C, Jáuregui A, Nonato IC, Barquera S (2018) Prevalence and trends of physical activity in children and adolescents: Results of the Ensanut 2012 and Ensanut MC 2016. Salud Publica Mex 60(3): 263-271.
3. Condello G, Puggina A, Aleksovska K, Buck C, Burns C, et al. (2017) Behavioral determinants of physical activity across the life course: A "Determinants of Diet and Physical Activity" (DEDIPAC) umbrella systematic literature review. Int J Behav Nutr Phys Act 14(1): 58.
4. Bergier B, Bergier J, Niźnikowska E, Junger J, Salonna F, et al. (2018) Differences in physical activity and nutrition and silhouette-related behaviours in male and female students in selected European countries. Ann Agric Environ Med 25(1): 176-181.
5. Garber CE, Blissmer B, Deschenes MR, Franklin BA, Lamonte MJ, et al. (2011) American College of Sports Medicine position stand. Quantity and quality of exercise for developing and maintaining cardiorespiratory, musculoskeletal, and neuromotor fitness in apparently healthy adults: Guidance for prescribing exercise. Med Sci Sports Exerc 43(7): 1334-1359.
6. Navarro PF, Aragones MT, Ley V (2018) Leisure-time physical activity and prevalence of non-communicable pathologies and prescription medication in Spain. PLoS One 13(1): e0191542.
7. Lee IM, Shiroma EJ, Lobelo F, Puska P, Blair SN, et al. (2012) Effect of physical inactivity on major non-communicable diseases worldwide: An analysis of burden of disease and life expectancy. Lancet 380(9838): 219-229.
8. Special Eurobarometer (2014) Sport and physical activity report. European Commission.
9. Global Health Observatory (GHO) Data (2015) Prevalence of insufficient physical activity. World health organization, Geneva, Switzerland.
10. Althoff T, Sosič R, Hicks JL, King AC, Delp SL, et al. (2017) Large-scale physical activity data reveal worldwide activity inequality. Nature 547(7663): 336-339.
11. Bronikowski M, Bronikowska M, Maciaszek J, Glapa A (2018) Maybe it is not a goal that matters: A report from a physical activity intervention in youth. J Sports Med Phys Fitness 58(3): 348-355.
12. Janz KF, Dawson JD, Mahoney LT (2000) Tracking physical fitness and physical activity from childhood to adolescence: The muscatine study. Med Sci Sports Exerc 32(7): 1250-1257.
13. Sahebkar M, Miri HH, Noormohammadpour P, Akrami R, Mansournia N, et al. (2018) Prevalence and correlates of low physical activity in the Iranian population: National survey on non-communicable diseases in 2011. Scand J Med Sci Sports 28(8): 1916-1924.
14. Armendáriz JJE, Grima FG, Ontoso IA (2005) Prevalencia de actividad física y su relación con variables sociodemográficas y estilos de vida en la población de 18 a 65 años de pamplona. Rev Esp Salud Pública 79(5): 559-567.
15. Msambichaka B, Abdul R, Abdulla S, Paul K, Marcel T, et al. (2018) A cross-sectional examination of physical activity levels and their socio-demographic determinants in southern tanzania. Int J Environ Res Public Health 15(6): 1054.

16. Zhu X, Haegele JA, Tang Y, Wu X (2017) Physical activity and sedentary behaviors of urban Chinese children: Grade level prevalence and academic burden associations. Biomed Res Int 2017: 7540147.

17. Harrison F, Goodman A, Sluijs EMFV, Andersen LB, Cardon G, et al. (2017) Weather and children's physical activity; How and why do relationships vary between countries? Int J Behav Nutr Phys Act 14(1): 74.

18. Vaquero AAL (2011) Sports habits in people aged 13 to 25 years in Aranjuez (Spain). AGON International Journal of Sport Sciences 1(1): 29-36.

19. Viera EC, Guerra FJGF (2011) Hábitos de práctica de actividad física del alumnado de la universidad de Huelva. Rev Int Med Cienc Act Fís Deporte 11(41): 127-144.

20. Al-Thani M, Al-Thani A, Alyafei S, Al-Kuwari MG, Al-Chetachi W, et al. (2018) Prevalence of physical activity and sedentary-related behaviors among adolescents: Data from the Qatar national school survey. Public Health 160: 150-155.

21. Terrados N, González JC, Schelling X (2011) Physiological common bases for team sports. Rev Andal Med Deporte 4(2): 84-88.

22. Romo GR, Pascual CB, Muñoz MG (2009) Reasons for and barriers to exercising and sports participation in Madrid. Rev Panam Salud Publica 26(3): 244-254.