

Perception of physical activity in high school students

Vega-Benítez M ¹, Comba-Marco-del- Pont F ², Romero-Flores E ², Cedillo-Ramírez L ³ and Rivera A ^{3,*}

¹ Central regional complex-Amozoc, Meritorious Autonomous University of Puebla, México.

² Faculty of Physical Culture, Meritorious Autonomous University of Puebla, México.

³ Institute of Sciences, Meritorious Autonomous University of Puebla México.

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Abstract

High school students are in a transitional phase due to changes in their eating and social habits and are exposed to consuming foods with low nutritional value. This is a stage where good eating habits and the adoption of regular exercise can be defined and reinforced for their future stages, contributing to a better quality of life. The objective of this study was to understand the perception of physical activity among high school students. A total of 503 students participated, with a gender distribution of 53% female and 47% male. Notably, a significant number of students indicated that they would pursue undergraduate studies in the natural sciences and health sciences. The data obtained show that most participants do engage in physical activity for 30, 60, or more minutes per day. They reported that the main factor contributing to health problems is poor diet, and that their primary motivation for exercising is aesthetics. They also acknowledged that time spent using technology can contribute to a sedentary lifestyle.

Keywords: Physical Activity; Perception; Barriers; Students; High School

1. Introduction

Adopting healthy habits today allows for a better quality of life. This includes minimizing the use of technologies that promote sedentary behavior, avoiding processed foods and sugary drinks such as sodas, and avoiding alcohol and tobacco. Therefore, a balanced diet rich in fruits, vegetables, seeds, and protein, along with the consumption of natural or plain fruit-infused water and regular physical activity, should be considered. In our society, starting good habits from an early age depends essentially on what is instilled at home and in school. This will help achieve a healthier society with lower rates of chronic degenerative diseases. It is important to highlight that in certain regions of the world there is a greater genetic predisposition to developing chronic degenerative diseases; however, adopting good habits can mitigate their development and ensure a better quality of life in adulthood [1,2].

The World Health Organization (WHO) has proposed a perception of lifestyle as a defined pattern of behaviors; however, individual and social characteristics (socioeconomic and environmental) change. A healthy lifestyle can be conducive to an ideal social life, fostering a healthy and fulfilling environment; conversely, if it does not contribute to well-being, it can be harmful and have negative effects on the social environment [3]. The high school years are crucial because eating and social habits change, as students are more exposed to fast food with low nutritional value and without set mealtimes. This is an important stage where aspects related to good habits for future life can be established. It is important to emphasize that at this stage of life, individuals should consider engaging in regular physical activity [4], and adopting regular exercise is recommended for future stages where they will define a better quality of life. The objective of this study was to understand the perception of physical activity among high school students.

* Corresponding author: Rivera A.

2. Materials and Methods

This study was conducted in various high schools of the Meritorious Autonomous University of Puebla, adhering to ethical standards and the Declaration of Helsinki. Informed consent was obtained from all participants, and data confidentiality was maintained. The research was carried out during October and November 2025. The sample size was determined by convenience sampling, using an intention-to-participate approach. The student population consisted of first- through third-year students enrolled in different high schools.

The study employed a descriptive, cross-sectional design. An ad hoc questionnaire was administered via Google Forms, consisting of items related to sociodemographic factors and perceptions of physical activity. Descriptive statistics (using STATA 12.0 software) were performed to understand the perceptions of physical activity among the sample analyzed.

3. Results

This study included 503 high school students who completed the questionnaire, ranging in age from 14 to 19 years. Of the participants, 267 were female (53%) and 236 were male (47%). 416 (83%) reported having completed their upper secondary education at public schools and 87 (17%) at private schools.

Regarding their undergraduate studies, the most numerous were those pursuing degrees in natural sciences and health, representing 41% of respondents (Figure 1).

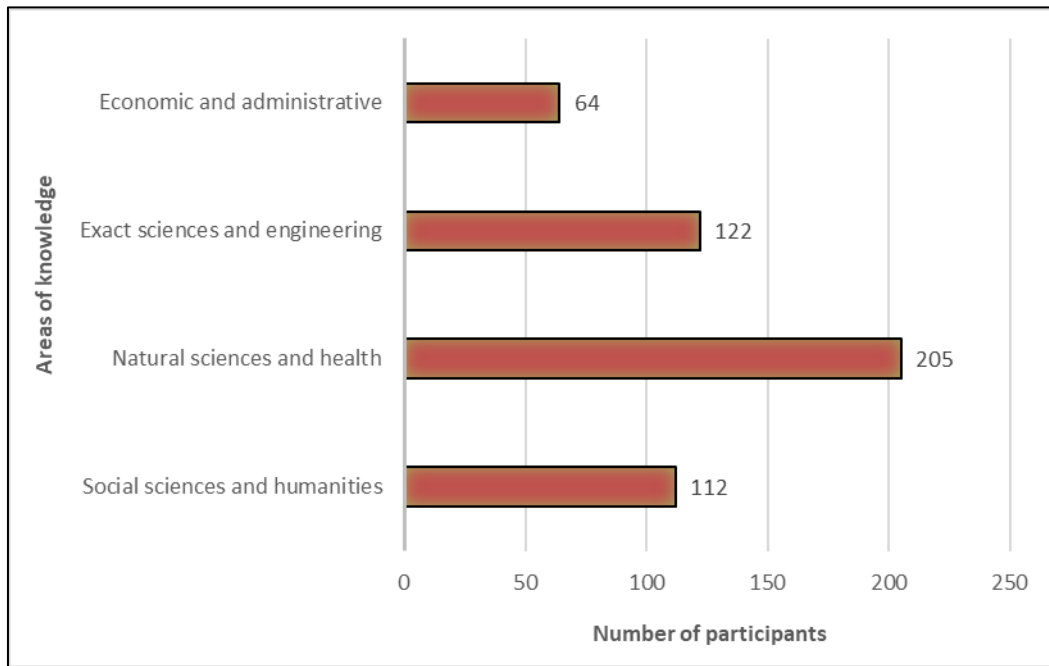


Figure 1 Information regarding the area where they plan to study their undergraduate studies

When participants were asked if they engaged in physical activity, it was observed that most did have this good habit, with those who performed between 30 and 60 minutes of exercise per day standing out (Figure 2).

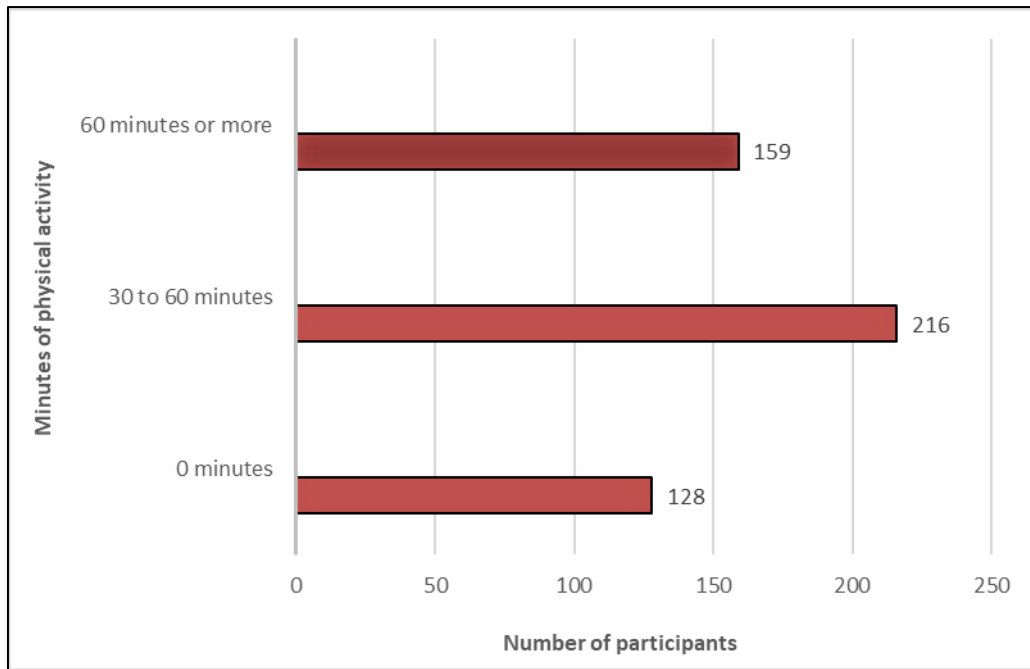


Figure 2 Data regarding the time spent performing physical activity daily

Regarding the causes that contribute to sedentary behavior, 64% cited poor habits, followed by lack of time and the use of technology, both at 18%.

Table 1 presents data on the participants' age ranges, their perceptions of factors that contribute to health problems, factors that motivate them to engage in physical activity, and the amount of time they spend using technology.

Table 1 Relevant data of the variables in the evaluated sample

Variable	Participants number	%
Age (years)		
14-15	212	42
16-17	284	56
18-19	7	2
Factor that contributes to health problems		
Lack of exercise	116	23
Poor dietary habits	352	70
Genetic predisposition	35	7
Factor that motivates physical activity		
For aesthetic reasons	362	72
For health reasons	141	28
Time spent using technology		
1-2 hours	132	26
2 hours or more	371	74

4. Discussion

Analyzing the perceptions of high school students, aged 14 to 19, reveals factors that can explain the current state of physical activity within a population. This includes whether they have good habits that "deteriorate" upon entering university, or whether universities offer programs to encourage physical activity. Such programs can contribute to a healthier society from a public health perspective and help prevent the development of chronic degenerative diseases.

Several studies on health habits and physical activity among university students have shown a "deterioration" due to changes in their routines caused by academic activities. These studies have highlighted the need for robust educational interventions by universities to promote healthy habits [5]. However, it is important to note that if these habits are established in early childhood, the problem can be mitigated more effectively.

Physical activity offers several advantages that impact health; specifically, engaging in physical exercise leads to improved self-esteem and self-image, and enhances the quality of life for both children and adults. These positive results stem from a synergy between physical activity and cultural factors, such that being physically active can reduce self-destructive and antisocial behaviors in young people [6].

Several studies provide valuable information for proposing interventions that improve quality of life in society and thus mitigate health problems in adulthood. Research has also focused on analyzing differences in levels of physical activity, sedentary behavior, and eating habits; the study of motivational resources for self-regulation in physical activity; perceived barriers to physical activity; the relationship between physical activity and perceived benefits and barriers; stages of change; and the benefits and barriers associated with physical activity and fruit and vegetable consumption. All of these studies have been conducted with university populations [7-11].

It is important to highlight the role of the family context in shaping children's habits during early childhood. In the case of physical activity, it is the parents or guardians who influence the frequency and duration of activities [12]. It is recommended to encourage children to be active from childhood. Verbal encouragement is one of the responsive practices that allows parents to promote physical activity in their children. Regular, moderate physical activity reduces the risk of death from problems associated with sedentary lifestyles, such as overweight and obesity. Currently, it has been observed that levels of physical activity are decreasing [13].

Low levels of physical activity, frequent use of technological devices, and poor diet are linked to childhood overweight and obesity. Thus, it is considered that physical activity habits are learned at home before the age of six (early childhood) and that these habits persist throughout life [14,15]. In different countries, programs have been formulated and implemented to promote healthy habits in the child population, such as INFANT in Australia, CATCH in the United States and children on the move in Spain [16].

5. Conclusion

This research allowed us to understand the perceptions of high school students regarding physical activity. With 503 participants, the distribution by gender was 53% female and 47% male. Notably, a significant number of students indicated that their undergraduate studies would be in natural sciences and health area. It was observed that most participants do have the habit of engaging in physical activity for 30 minutes or more per day. The study highlighted that the main factor contributing to health problems is poor diet, and that their primary motivation for exercising is aesthetics.

Compliance with ethical standards

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Disclosure of conflict of interest

The authors declare that they have no competing interests.

Author's contributions

All authors contributed equally to the conception and development of the work.

Statement of informed consent

Informed consent was obtained from all individual participants.

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