



جامعة مصر للمعلوماتية
EGYPT UNIVERSITY
OF INFORMATICS

Egypt University of Informatics
Computer and Information Systems
Data Analysis Course

The impact of sports on health for different age groups

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Introduction

Welcome to our survey exploring the relationship between sports participation and physical and mental well-being. Your input will help us understand the impact of sports on overall health. Thank you for participating!

Research Question

What is the impact of sports on health?

Hypothesis

We hypothesize that a positive correlation exists between regular physical activity and overall health specially in youth age groups

Population of Interest:

people from different age groups enrolled in group and individual sports participation

Sampling Method:

Random Sampling: Every member of the population has an equal chance of being selected. This method ensures representativeness and minimizes bias

Bias Identification:

Impact of sports on health: Bias could arise if the question assumes a direct causal relationship between sports participation and health without considering other confounding factors. So we made the question clear as possible to make it easy to understand the purpose.

Gender and Age Categories: Bias may occur if the provided age categories do not accurately represent the population or if certain age groups are underrepresented. So we made sure covering all age categories .

Type of sport regularly practiced: Bias may arise if the provided options for types of sports are limited or if certain sports are overrepresented. So we didn't give certain sports we wanted to know about group or individual sports.

Frequency of training: Bias may occur if the frequency options do not adequately capture the range of training habits among respondents. So we made sure we covered starting from many times a week to never and with different intervals.

Impact of sports on health: Bias may arise if the question is framed in a leading manner that suggests respondents should perceive a positive impact of sports on their health. So we gave example of answers in the mcq and didn't make an open word answer.

Rating of health on a scale of 1 to 5: Bias may occur if respondents interpret the scale differently or if their perception of their own health is influenced by external

factors. So we mentioned that the only factor determining the answer is the frequency of training.

Survey Questions:

Gender [choosing gender to divide males and females]

Age range [13 – 16 , 17 – 20etc]

What type of sport do you randomly do [individual or team sport]

Frequency of training [several times a week , once or twice a week etc]

How did the impact of sports change your health [improved , did not effect... etc]

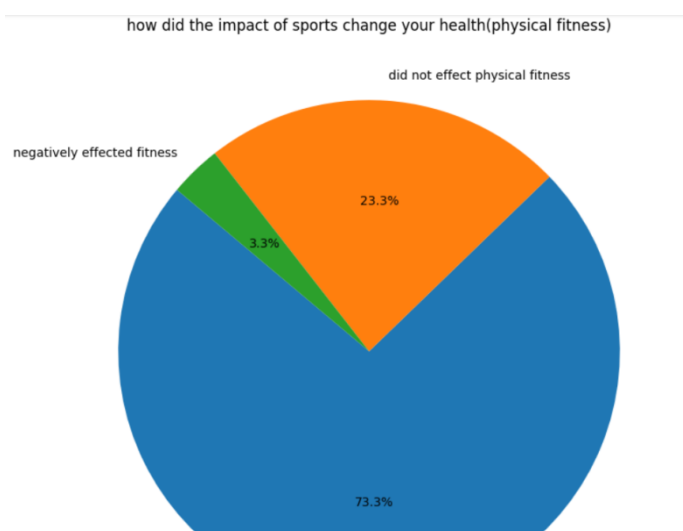
On scale 1 to 5 how do you rate your health [1-5]

Online survey link : <https://forms.gle/EdMdpcg98FHDBNML8>

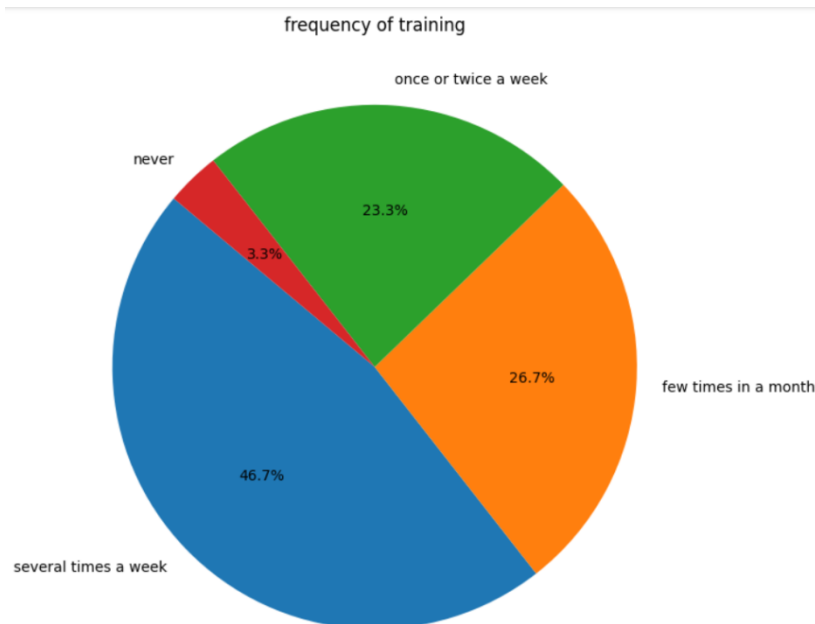
Number of samples collected: 30

Analysis:

The data from both pie charts suggest a positive relationship between sports participation and physical well-being. Regular training, particularly several times a week, appears to be associated with improved physical fitness, which aligns with the well-established benefits of consistent exercise



Pie chart Showing frequency of sports and relation on impact on health. The pie chat shows the mean is 11.5, the mode is "Improved physical fitness," and the median is 11.5.



Pie chart Showing frequency of sports and relation on impact on health. The pie chart shows the mean is 7.5, the mode is "Several times a week," and the median is 7.5. , we can see the relation now between impact and sport frequency and we described it in upper part.

Conclusion

The majority of respondents train several times a week and attribute their improved physical fitness to sports participation. These findings highlight the importance of regular sports engagement for enhancing physical health and fitness levels.

Any potential issues

Respondents might interpret questions differently based on their personal biases or experiences, potentially leading to variations in responses that aren't solely reflective of the true impact of sports on health.

Tips:

1. Please DO NOT include any code here.
2. Please make sure you format your document properly.