Headache Medicine 2024, Supplement p-ISSN 2178-7468, e-ISSN 2763-6178

Headache Medicine

DOI: 10.48208/HeadacheMed.2024.Supplement.8

Analysis of performance of physical activities in patients with headache - data from a Brazilian cohort

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Introduction

Physical exercise is recommended to improve the pain pattern. However, some headaches worsen or are triggered during physical exercise. Studies show that patients with headaches perform less physical exercise than those without headaches, but the direction of this relationship has yet to be discovered.

Objective

to verify whether there is a relationship between the presence of headache and the performance of light, moderate, and vigorous physical activities; whether there is a correlation between headache frequency and intensity and the frequency of light, moderate, and vigorous physical activities, and whether there is a difference in the frequencies of physical activities between those with episodic/chronic headaches.

Methods

An analytical and descriptive study from a cohort of live births (1978/79) in Ribeirao Preto/SP. The variables of interest were: Presence, frequency, and headache intensity in the last 3 months. Days of continuous walking, moderate activities (cycling lightly, swimming, dancing, doing light aerobics, volleyball) and vigorous activities (running, playing football, cycling quickly, playing basketball, carrying heavy weights), for ≥10 continuous minutes, in the last week.

Results

1775 individuals (average age of 38.13±0.579, 52.3% female) participated. 63% reported headache in the last 3 months (16.3% with chronic headache). The proportions of individuals with and without headaches among those who performed walking (50.90% versus 51.07%; p=0.945) or moderate physical activities (50.72% versus 46.71%; p=0.104) were no different. Among those who performed vigorous physical activities, there was a lower proportion of individuals with headache (23% versus 31.9%, p<0.001). There was no correlation between headache frequency and frequency of light (rs=0.026; p=0.387), moderate (rs=0.045; p=0.137), or vigorous physical activity (rs=0.138; p<0.001). There was no correlation between headache intensity and frequency of light (rs=0.025; p=0.411), moderate (rs=0.030; p=0.319), or vigorous physical activity (rs=-0.079; p=0.008). There was no difference in the frequency of light (p=0.226), moderate (p=0.342), or vigorous physical activity (p=0.112) between patients with episodic/chronic headache.

Conclusion

Fewer individuals with headaches were observed performing vigorous physical activities. No correlation was observed between headache frequency and intensity and frequency of physical activities. There was no difference in the frequency of physical activities between those with chronic or episodic headaches.