

Prevalence of Headache among Undergraduate Students of Health Sciences

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ABSTRACT

Introduction: Headaches can have a major negative impact on student's academic performance and well-being in the atmosphere created by the demanding requirements of health science programs which include intense coursework, clinical rotations, and academic duties. The main objective of the present study was to evaluate the prevalence of headache among under graduate students of Health sciences.

Methods: This study was conducted among 104 students of health sciences from RIMT University between the age group of 17 to 27 years (52 male and 52 female). Headache Disability Index (HDI) Questionnaire was used as an outcome measure.

Results: It was observed that 51% of students answered that they have headache once per month, 23% answered that they have headache more than once but less than 4 times a month and 26% students answered that they have headache some times more than once a week. 38.5% claimed the intensity of pain was mild, 50% of students claimed that the intensity of pain was moderate and rest said the pain was severe in terms of intensity.

Conclusion: The present study concludes that headache was common among health sciences students at RIMT University. The results highlight how crucial it is to treat headaches by taking environmental and lifestyle variables into account.

KEYWORDS: Headache, Health Sciences, Migraine, Students

INTRODUCTION

Headache is a frequently incapacitating alarming medical condition that can have a more noticeable effect among college students, especially those seeking degree in the health sciences (Smith, 2023). Sizable fraction of students suffers from headaches, which can range from infrequent, moderate episodes to severe persistent migraines. The projected prevalence rates among students studying health sciences vary between 60% to 80% which is similar to those of the whole college student population (Nguyen, 2024). Tension headaches are frequently linked to feelings of stress and worry which is usually felt as a constant, dull aching on both sides of the head and frequently compared to a tight band around the skull. A number of things such as the strain of academic work, sleep deprivation, awkward posture when studying or extended screen time can cause headaches (Garcia, 2023). Although tension-type

headaches can linger anywhere from a few minutes to many days, they often don't get in the way of everyday activities (Wang, 2022).

Migraines are severe headaches that often affect one side of the head and are characterized by throbbing pain which can be quite crippling and frequently coexist with other symptoms such as nausea, vomiting, photophobia (sensitivity to light) and phonophobia (sensitivity to sound). There are many different things that might cause migraines such as hormone fluctuations, certain foods (such processed or aged cheeses), bright lights, overpowering smells and stress (Jones, 2023). Before a migraine attack begins, some people experience auras which are visual disturbances like flashing lights or zigzag lines. Because of the intensity of the symptoms, migraines can seriously impair a student's concentration when

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studying, attendance in class and involvement in clinical rotations (Kim, 2022). Cluster headaches are characterized by intense pain and cyclical patterns in which the headaches occur. They usually only affect one side of the head, usually the area around the temple or eye (Sharma N, 2023). These headaches might happen many times a day, lasting anywhere from fifteen minutes to three hours each time. Although the precise etiology of cluster headaches is unknown, particular meals, alcohol, tobacco use and irregular sleep patterns can all function as triggers (Chen Y, 2024). Cluster headaches are frequently reported as unbearably painful, causing anxiety and restlessness during an episode. During these excruciating pain episodes, students suffering with cluster headaches may find it difficult to focus on their schoolwork or attend class (Gupta P, 2022).

College students frequently have irregular sleep patterns, little rest and poor-quality sleep especially those enrolled in demanding programs. Students who don't get enough sleep may be less sensitive to pain and more prone to headaches, particularly migraines brought on by irregular sleep-wake patterns (Adams J, 2023). Students may find themselves looking at screens for extended periods of time as their reliance on digital gadgets for learning grows (Kim H, 2024). Tension headaches can result from poor ergonomic practices such as hunching over a laptop or tablet for prolonged periods of time (Patel N, 2022). Headaches can be caused by irregular eating habits, missing meals because of a hectic schedule and taking too much coffee. For those who are sensitive, some foods including processed snacks, sugar-filled drinks or meals with added ingredients like MSG can cause migraines (Johnson L, 2023). College students, especially those majoring in health sciences frequently struggle with anxiety, depression, and other mental health issues. Tension-type headaches or illnesses already present can be made worse by stress and emotional upheaval, which can also function as triggers for headaches (Nguyen A, 2022).

Effect on Academic Performance and Quality of Life: The effects of headache go beyond mere soreness among health science students as they can have a major negative influence on both academic achievement and general well-being. Headaches may result in missed study sessions, clinical rotations and classes which further reduces the amount of learning chances, reduced productivity and trouble focusing in class and on tests. Overall reduced quality of life as a result of persistent discomfort and agony (Smith C, 2023).

Material and Methods

The study is descriptive in nature. Present survey study was to observe the prevalence of headache among students of health sciences. Participants in this study were undergraduate health science students from RIMT University. Each participant in the study gave their free consent prior to the start of the investigation and they were fully informed. Total 104 students from various departments of health sciences between the age group of 17 to 27 years (52 male and 52 female) are included in the study. Convenient random sampling was used in this survey to get information from students of RIMT University. The Headache Disability Index Questionnaire was used to gather data from this survey study, which was conducted online using Google Form. The purpose of this questionnaire is to gather important information on the real-world experiences of headache sufferers to improve assistance and care for those who are impacted by this widespread medical condition.

Inclusion Criteria

1. Students of Health Sciences only.
2. Students between age group of 17 to 27 years.
3. Only 2nd year to 4th year students were taken.

Exclusion Criteria

1. Students unwilling to participate.

RESULTS:

Results demonstrated the prevalence of headache among under graduate students of health sciences. 104 questionnaires were filled in completely and considered for analysis. Mean age of the study participants was 22 years where both females and males were 50%. Of all the respondents, 31.73% were from physiotherapy department, 30.77% were from radiology department, 14.42% were from MLT, 12.5% were from nursing department and rest 10.58% were from OTAT department. Out of 104 students investigated 51% of students answered that they have headache once per month, 23% answered that they have headache more than once but less than 4 times a month and 26% students answered that they have headache sometimes more than once a week. 38.5% claimed the intensity of pain was mild, 50% of students claimed that the intensity of pain was moderate and the rest said the pain was severe in terms of intensity. Around 4.2% of the total students responded that they feel handicapped due to headache and around 26.9% said sometimes due to headache they feel handicapped. 18.3% said that they feel restricted in performing daily activities and 56.7% said they sometimes feel restricted in performing daily activities.

Headache Disability Index Questionnaire (N=104)	YES	SOMETIMES	NO
1. Because of my headaches I feel handicapped.	4.2%	26.9%	68.3%
2. Because of my headaches I feel restricted in performing my routine daily activities.	18.3%	56.7%	25%
3. No one understands the effect my headaches have on my life.	24%	40.4%	35.6%
4. I restrict my recreational activities (e.g., sports, hobbies) because of my headaches.	24%	40.4%	35.6%
5. My headaches make me angry.	39.4%	36.5%	24%
6. Sometimes I feel that I am going to lose control because of my headaches.	26.9%	38.5%	34.6%
7. Because of my headaches I am less likely to socialize.	29.8%	32.7%	37.5%
8. My spouse (significant other), or family and friends have no idea what I am going through because of my headaches.	20.2%	36.5%	43.3%
9. My headaches are so bad that I feel that I am going to go insane.	19.2%	29.8%	51%
10. My outlook on the world is affected by my headaches.	20.2%	34.6%	45.2%
11. I am afraid to go outside when I feel that headache is starting.	25%	42.3%	32.7%
12. I feel desperate because of my headaches.	19.2%	41.3%	39.4%
13. I am concerned that I am paying penalties at work or at home because of my headaches.	17.3%	27.9%	54.8%
14. My headaches place stress on my relationship with family or friends.	17.3%	38.5%	44.2%
15. I avoid being around people when I have headaches.	29.8%	39.4%	30.8%
16. I believe my headaches are making it difficult for me to achieve my goals in life.	29.8%	29.8%	40.4%
17. I am unable to think clearly because of my headaches.	27.9%	36.5%	35.6%
18. I get tense (e.g., muscle tension) because of my headaches.	27.9%	37.5%	34.6%
19. I do not enjoy social gatherings because of my headaches.	28.8%	38.5%	32.7%
20. I feel irritable because of my headaches.	40.4%	36.5%	23.1%
21. I avoid traveling because of my headaches.	28.8%	38.5%	32.7%
22. My headaches make me feel confused.	25%	41.3%	33.7%
23. My headaches make me feel frustrated.	28.8%	36.5%	34.6%
24. I find it difficult to read because of my headaches.	38.5%	38.5%	23.1%
25. I find it difficult to focus my attention away from my headaches and on other things.	32.7%	40.4%	26.9%

Table 1. shows responses of students according to Headache Disability Index Questionnaire.

Select the correct option as per your condition

104 responses

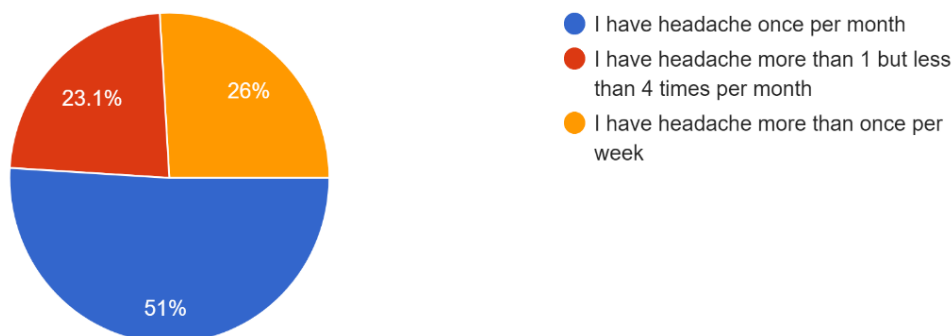


Figure 1: Pie chart representing the frequency of headache among students of health sciences.

Headaches level

104 responses

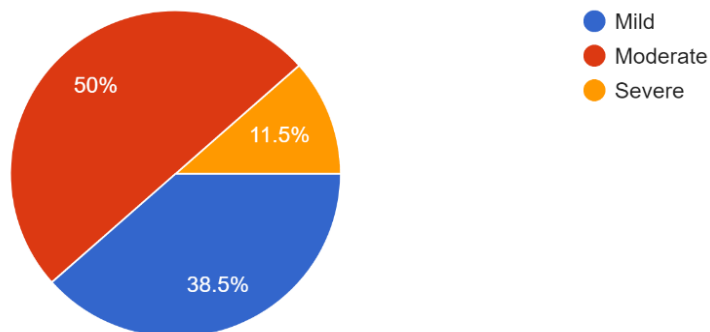


Figure 2: Pie chart representing the Intensity of the headache among students of health sciences.

DISCUSSION:

Students studying to become health professionals frequently have headaches, which can have a detrimental impact on their quality of life and scholastic achievement. The purpose of the study was to ascertain the frequency, pattern, related psychosocial variables, and treatment-seeking behaviour with reference to headaches among health professions students. However, it is important to note that the prevalence of headache among undergraduate students of health sciences vary based on several factors, including age, gender, and other questions from our Headache Disability Index scale. This study was performed on students of health sciences of RIMT University to see the Headache patterns and associated factors of headache. Out of 104 students investigated 51% of students answered that they have headache once per month, 23% answered that they have headache more than once but less than 4 times a month and shockingly 26% students answered that they have headache some times more than once a week. Out of these 104 participants 38.5% claimed the intensity of pain was mild, 50% of students claimed that the intensity of pain was moderate and rest said the pain was severe in terms of intensity. Also, 4.2% of the total students responded that they feel handicap due to headache and around 26.9% said sometimes due to headache they feel handicap. 18.3% said that they feel restricted in performing daily activities, 56.7% said they sometimes feel restricted in performing daily activities.

According to various studies an extensive investigation of the incidence of headache disorders worldwide revealed that methodological considerations have a major impact on prevalence estimates. Standardised diagnostic criteria, such those offered by the International Classification of Headache Disorders (ICHD) are crucial, according to the study. According to the criteria and procedures

employed, prevalence rates were found to vary greatly, ranging from 1.7% to 17.7% for migraines and 20.6% for tension-type headaches (TTH) (Stovner L, 2010). The emphasis of a different systematic study and meta-analysis was on kids and teenagers. According to this study, primary headaches such as migraines and tension-type headaches are more common in younger people. The combined frequency of migraines was almost 11%, with notable differences across studies and geographical areas. The review also pointed out that women have headaches more frequently as compared to men (Abu-Arafeh, 2010). According to research conducted on the treatment and frequency of headaches among female undergraduate students in Lahore, headaches were quite common and affected a sizable section of the student body. The high prevalence rates found in this study were significantly attributed to stress, academic pressure, and lifestyle variables (Rizvi SA, 2018).

Interventions and Techniques for Management:

Health science student's headaches necessitate a multimodal strategy that aims to include methods of stress reduction in everyday activities such as progressive muscle relaxation, mindfulness and meditation. There is need to promote sound sleeping practices such as sticking to a regular sleep schedule, setting up a cozy sleeping space, and limiting screen time before bed (Lee Y, 2023). Students should include frequent breaks and stretching exercises, along with advice on how to sit properly when using digital devices and studying. It is necessary to promote well-balanced meals full of whole grains, fruits, and vegetables as well as enough water, encouraging frequent wholesome meals and discouraging excessive coffee consumption (Brown D, 2022). There is need to provide programs for stress management, mental health resources, and counseling services. Students who experience severe or chronic headaches may require medical attention. This can involve visiting a doctor, taking over-the-counter

painkillers and receiving prescription medicine for migraines (Kim S, 2023). Despite the existing body of research on headaches among college students, there are still knowledge gaps that need to be addressed. Research studies can include assessing the effectiveness of specific interventions such as stress management programs or ergonomic interventions in reducing headaches among students.

CONCLUSION:

The above study concludes that headache was common among health sciences students at RIMT University. This study provides us the answer to various questions from the Headache disability index scale. It tells us the frequency and the intensity of the headache among the students. The results highlight how crucial it is to treat headaches by taking environmental and lifestyle variables into account. In order to effectively prevent and cure headaches, comprehensive techniques incorporating stress reduction, sleep regulation, and ergonomic improvements are essential. It is essential to comprehend the frequency of headaches and related variables among undergraduate health science students to customize healthcare plans for educational establishments. Thus, by offering guidance for the creation of initiatives targeted at stress management, healthy lifestyle promotion and facilitating access to relevant healthcare resources, this type of study improves student support services. Furthermore, adding to the body of information in this field helps us comprehend the epidemiology of headaches in young people, which encourages more studies and projects aimed at improving the health of students.

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Ethical issues:

None to be declared.

Conflict of Interest:

The authors declare no conflict of interest in this study.

Authors contributions:

All authors were in the conception and design acquisition of data analysis and interpretation of data, drafting the article, review of article and final approval.

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