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Research Article

PREVALENCE AND IMPACT OF PRIMARY HEADACHE DISORDERS AMONG STUDENTS AND WORKING POPULATION IN 18-25 YEARS AGE GROUP

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ABSTRACT

Background: Headache or cephalalgia is defined as pain in the head. Headache is an extremely common symptom that may have a profound impact on peoples' functioning and quality of life. According to International Classification of Headache Disorders (ICHD), they are Primary and Secondary headaches. Primary Headaches are triggered by stress, alcohol, changes in sleep pattern, anxiety, poor posture, all of which are part and parcel our day-to-day life. The study was performed to investigate the prevalence of primary headache disorders and its severity of impact among students and working population in the age group 18-25. **Methods:** The study was conducted on 718 subjects of which 483 subjects were medical and engineering students from the age group 18-21 and 235 subjects were working people from the age group 22-25. Written consent was taken from each of them. Headache Impact Test-6 (version 1.1) and the HARSHIP Questionnaire by Timothy Steiner et al. were the questionnaires used to diagnose the severity of impact and the type of headache respectively. The study was ethically approved by Ethical Clearance Board of MAHER University. People suffering from psychiatric illness were excluded from the study. **Result:** There was increased prevalence of migraine in the age group 18-21 and tension type headache in the age group 22-25. Over 50% of subjects from both the age groups had headaches that have substantial to severe impact on their lives. There was no significant gender variation in headache prevalence.

Keywords: Migraine, tension type headache, stress, headache, anxiety

INTRODUCTION

Headache or cephalalgia is a pain in the head¹. The pain is caused by irritation or inflammation of structures that surround the brain like meninges, periosteum and muscles since the brain has no nerve fibres to sense pain. The pain may be of various types like throbbing, dull ache, continuous, sharp or intense².

According to International Classification of Headache Disorders (ICHD), they are Primary and Secondary headaches. Primary headaches are migraines, tension-types headaches, cluster headache and other trigeminal autonomic cephalalgias. Secondary headaches are based on

their etiology and not on their symptoms. These include those that are due to head or neck trauma such as whiplash injury, intracranial hematoma, post craniotomy or other head or neck injury³.

MATERIALS AND METHODS

Sample: Subjects from the age group 18-25 were divided into two categories. Age group 18-21 which consisted of students from medical and engineering colleges and the age group 22-25 which consisted of working people from medical and engineering fields. The duration of the study was from October 2013 to December 2013.

Ethical clearance: The study was ethically approved by Ethical Clearance Board of MAHER University.

Consent: Written informed consent was taken from all the subjects.

Inclusion criteria: The subjects were asked if they had a headache in the past year not related to flu, hangover, cold or head as recommended by earlier studies⁴. Those who said “YES” to the screening question were alone included in the study.

Exclusion criteria: Those who were suffering from psychiatric illness were excluded from the study. Those having headaches associated with refractive errors, aural problems and dental problems were also excluded.

METHOD: 718 subjects responded “YES” to above question and were asked to fill the questionnaires after getting informed consent from them. Out of the 718 subjects, 483 cases were students in the age group 18-21 (45% males and 55% females) and 235 cases were working people in the age group 22-25 (47% males and 53 % females).

Questionnaire: There were two questionnaires. The first one Headache Impact Test-6 (version 1.1)⁵ is a tool used to measure the impact headache has on your ability to function. Based on the scoring the subjects were divided into little/no impact, moderate impact, substantial impact and severe impact. The other one is the HARSHIP Questionnaire which stands for Headache-attributed restriction, disability, social handicap and impaired participation questionnaire^{6,7}. It is used to diagnose the type of headache. It consists of questions which gives information about the onset, duration, type and characteristics of pain along with its associated, relieving and aggravating factors.

Statistical analysis: The obtained data was analyzed for statistical significance using Students ‘t’ test. $p > 0.05$ was considered the level of significance. Graph pad Prism 4 was the software used

RESULTS

The results of the Headache Impact Test-6 (Version 1.1) questionnaire showed that over 50% of subjects from both the age group have headaches that have substantial to severe impact on their lives (Fig 1 & 2). The results of HARSHIP questionnaire showed that there was increased prevalence of

migraine (57%) in the age group 18-21 (Fig 3) and increased prevalence of tension type headache (42%) in the age group 22-25 (Fig 4). Taking $p > 0.05$, there was no significant gender variation in headache prevalence in both the age groups.

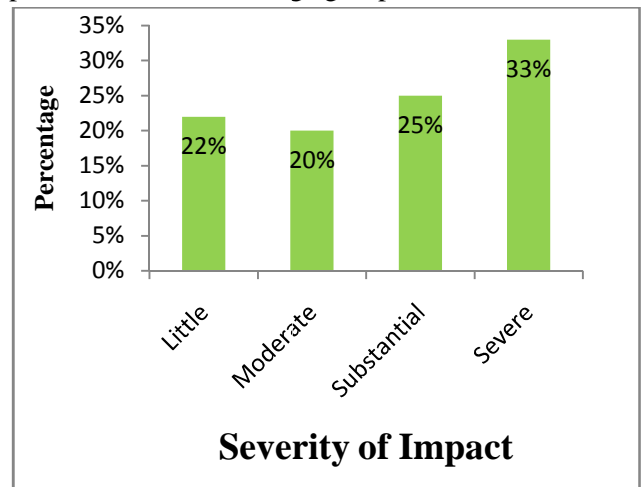


Fig 1 : Severity of impact of headache based on HIT-6 questionnaire in the age group 18-21

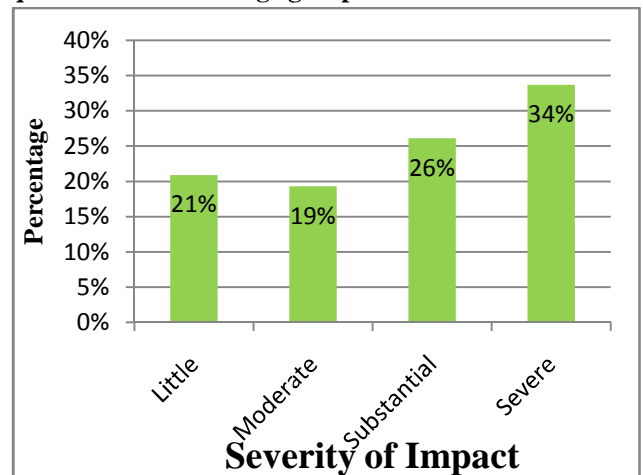


Fig 2: Severity of impact of headache based on HIT-6 questionnaire in the age group 22-25

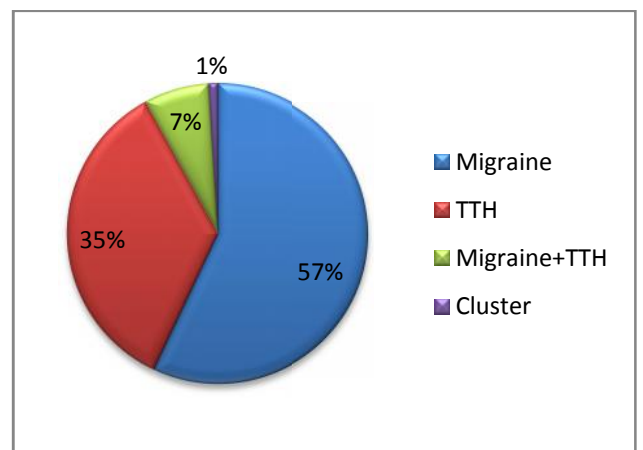


Fig 3: Distribution of different types of headaches in the age group 18-21

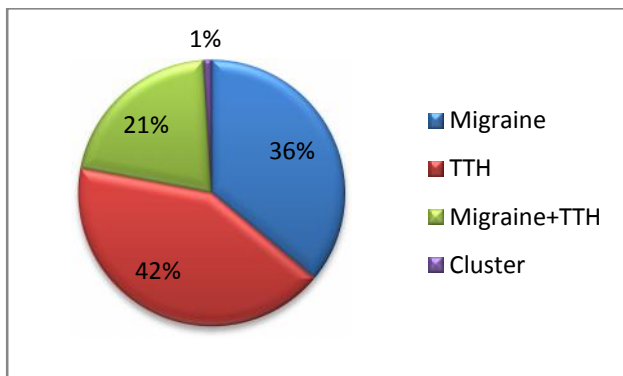


Fig 4: Distribution of different types of headaches in the age group 22-25

DISCUSSION

Headache is the most common neurological problem that has a profound impact on peoples' life. Tension type headache (TTH) is characterized by bilateral non-pulsating pain which may be described as tightness like a band around the head. Migraine is described by unilateral pulsating headache associated with nausea, vomiting, and photophobia. World Health Report 2001 by World Health Organization ranked headache among the top 20 causes of healthy life lost to disability⁸. In India, given the population load, headache has been and continues to be underestimated in scope and scale, and remains under-recognized and under-treated everywhere. TTH and migraine ranked respectively as second and third most common diseases in the world (behind dental caries) in both males and females⁹. The Global Burden of Disease Study which was updated in 2004 found that migraine account for 1.3% of years lost due to disability (YLD)¹⁰.

A study conducted by Mayo Clinic showed that the common triggers for migraine are hormonal changes in women, foods like cheese, salty foods and processed foods, skipping meals or fasting, alcohol, especially wine, stress, changes in wake-sleep pattern, physical exertion, weather changes¹¹. Stress is the most commonly reported trigger for tension headaches¹². The other common causes of TTH reported are anxiety, depression, poor posture, and lack of sleep¹³.

Headaches are not only painful, but also disabling. They impair the quality of life, damage family life and social life. They may predispose the sufferers to other illnesses. For example, people suffering from migraine have three times increased risk of depression compared to the healthy individuals.

CONCLUSION

My study showed that migraine (57%) and tension type headache (42%) is most commonly compared to other types of headaches in the age group 18-21 and 22-25 respectively. Headache disorders are associated with personal and societal burdens of pain, disability, damaged quality of life and financial cost. Since the symptoms and management of each type of headache is different, it is wise to know about them before treating them with over the counter medications like aspirin which will do worse than good.

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