

# Headache: Prevalence, Patterns and Symptoms Amongst Medical Students at Fatima Memorial College, Lahore

M.USMAN TAHIR, NOOR-I-KIRAN NAEEM, AROOJ USMAN, HARIS IQBAL, UMBREEN NAVIED, SABIHA ERUM

## ABSTRACT

**Objective:** To determine the prevalence of headache, its different patterns and associated amongst medical students in Fatima Memorial Hospital, Lahore

**Study design:** Cross-sectional study.

**Place and duration of study:** Department of Pharmacology, FMH College of Medicine and Dentistry, Lahore from April 2010 to September 2010.

**Methods:** A total of 237 medical students aged 20 to 25 years, were included. The main outcome measures studied were; prevalence of headache, associated symptoms and impact of positive family history.

**Results:** The estimated prevalence rate of headache in medical students was 85.5%. Of them 43.1% had mild, 46.6% had moderate and 10.3% had severe headache. Nearly half of them (51%) had a frequency of 3 or less episodes per month. 20.87% had no warning symptoms. The most common site was frontal headache (30.4%) and in 66.7% of the cases it was aching in character. Of those taking medicines (41%) majority (82.5%) were self medicated. A positive family history was present in 58% students.

**Conclusion:** Headache is a major health problem amongst medical students. It is inappropriately treated and there is strong impact of family history

**Key words:** Headache, migraine, medical students, prevalence, tension-headache

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## INTRODUCTION

Headache is a common symptom in medical students and a common health problem<sup>1,2</sup>. The prevalence of headache has increased considerably in medical student during the last few decades and the age of onset has decreased<sup>1,3</sup>. The diagnostic criteria for migraine defined by the International Headache Society are now widely accepted and have been applied successfully to studies on the epidemiology of migraine in adults<sup>4</sup>. Much less is known about the prevalence and causes of headache amongst medical students in general<sup>5</sup>. No local data are available regarding its prevalence, frequency, different patterns and associated features. Numerous studies on the epidemiology of headache have shown great variations according to specific populations and regions involved.

## PATIENTS AND METHODS

A study amongst 237 medical students of FMH College was conducted from April to September 2010.. Among them 120 were boys and 117 were girls. A comprehensive questionnaire was made

Department of Pharmacology, FMH College of Medicine and Dentistry, Lahore.

Correspondence: Dr. M. Usman Tahir, Department of Pharmacology, Email. noorikiran@yahoo.com

under I.H.S guidelines and was filled by the medical students. Considerable attention was paid to the language of the questionnaire to make it simple and understandable for medical students. SPSS for Windows was used to tabulate data and to calculate frequencies, percentages and comparisons of different variables

## RESULTS

Among 237 students 144 had headaches with an estimated lifetime prevalence rate of 61%. There were 120 boys and 117 girls with 102(84.8%) boys and 100(86.0%) girls having headaches (Table1).

Table 1: Incidence of headache amongst study population

	Male	Female
With headache	102	100
Without headache	8	17
Total	120	117

About half of the medical students (74), 51% had either 3 or less episodes of headache per month whereas 50 students (35.0%) had either 3 or fewer episodes per week. Only 20 students (13.8%) were found to have daily headaches. In all 68 % students had either current or recurrent headaches.

Regarding severity 62(43.1%) students had mild, 67(46.6%) moderate and 15(10.3%) had severe headaches. 30 medical students had no warning prior to headaches (20.8%). One or more warning symptoms were experienced by 73(50.6%) children (32) had flashing lights, 38 had nausea, 28 had headache on exertion occasionally, whereas 11(8%) children always got one or more warning symptoms before having an episode of headache.

The most common pattern of headache was frontal which was present in 44 (30.4%) children. Bilateral headaches were present in 39 (26.9%) subjects whereas unilateral headaches were had in 22 children (15.8%). Unilateral and bilateral headaches both were more common in girls whereas frontal headache was more common among boys. Migraine was seen in 32 students (22%) (Table 2)

Table 2: Type of headache according to gender

Type of headache	Male	Female
Frontal	28	16
Unilateral	8	14
Bilateral	13	26
Migraine	13	19

Most of the children 82 (56.8%) had headaches lasting less than an hour, followed by 39 (27.0%) having headaches for 1 to 4 hours. Only 10 (6.94%) children had headaches that lasted for more than 24 hours. The character of headache was described as aching 96 (66.7%) and throbbing by 48 (33.3%) children. None of the children described their headache being stabbing or burning in character. Radiation of headache to other body parts was found in 44 (31%) subjects. According to 61 (42.6%) children physical activities had an increasing influence on the severity of their headaches.

No medication was used by 57 (39.5%) children, who just went to bed or took rest. Medication was taken by 59 children along with rest or not whereas 28 (19.5%) children chose to continue their daily activities. A total of 59 (41.0%) children were using medicine for headache. Of these 9 (15%) took it on a doctor's advice whereas 50 (85%) used over the counter drugs. A positive family history of similar headaches was present in 84 (58%)

## DISCUSSION

Prevalence of headache varies greatly for different populations and places. Our study shows that prevalence of headache is very high, but comparable to other studies conducted in various parts of the world<sup>5,6,7</sup>. The interesting feature is that very little prevalence difference was found between boys and girls in comparison to other studies<sup>3,5,7,9</sup>.

Our data observed shows that the most prevalent age for headache was 21 years, and this finding was consistent with other studies from other parts of the world<sup>7</sup>.

The presented study found that recurrent headaches (68%) were much more common as compared to other populations with comparable prevalence percentage<sup>3,5,8,11</sup>. No definite underlying factors and causes for this are known in Pakistan.

Headache was found to be the most inappropriately treated ailment among medical students. Similar conclusions were reported by Deleu D et al<sup>1</sup>. Moreover, majority of sufferers were taking medicines without any medical advice and this is a cause of serious concern. More than half of the medical students (58%) had a positive family history of headache, showing that it was a major influential factor. This is also in agreement with other studies<sup>6</sup>.

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