

Frequency, Type and Burden of Headache among Medical Students of Tabuk University in Tabuk City

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ABSTRACT

Introduction: Headache disorders are one of the most common disorders of the nervous system. Almost half of the adults had a history of headache at least once within the last year. Headache is painful and disabling; also can cause substantial personal suffering and negative effect on the quality of life of the individual, affecting his/her family life, social life, employment and academic achievements.

Methods: Cross sectional study conducted in college of medicine, university of Tabuk at Tabuk city in Saudi Arabia on male and female medical students. Data collected via distributing a structured questionnaire assessing the prevalence of each type of primary headache and their burden on their academic achievement within the college campus. The analysis included descriptive statistics and graphs.

Results: A total 325 male and female medical students in Tabuk university at Tabuk city were included in the study. Most of them age between 18-24 years (313 participants), majority study in fifth year. only (18.4%) diagnosed with primary headache (46.4%) have at least one first degree relative diagnosed with primary headache. The main headache types

indicated by study participants are migrant with aura followed by tension headache.

Conclusion: Steps such as education about headache type, aggravating factor, reliving factor and proper use therapeutic and prophylactic medication are required to improve the health states and academic performance of medical students.

Keywords: Headache; Tabuk; Saudi Arabia.

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INTRODUCTION

Headache disorders are one of the most common disorders of the nervous system. Almost half of the adults had a history of headache at least once within the last year. Headache is painful and disabling; also can cause substantial personal suffering and negative effect on the quality of life of the individual, affecting his/her family life, social life, employment and academic achievements. There are two major classifications for headache: primary and secondary.

Migraine, tension-type headache and cluster headache are examples of primary headaches. As for secondary headaches, there're plentiful examples including but not limited to space occupying lesions such as hemorrhagic stroke and tumors, Infections, errors of refraction, medication overuse headache.¹

Tension type headache: the commonest form of headache, about three-quarters of the general population had a history of this type of headache. The pain is mild to moderate, Bilateral (both sides of head) last from 30 minutes to seven days. The pain as "a band around the head" or vice-like.²

Migraine: characterized by unilateral, moderate or severe, throbbing pain. Symptoms such as nausea, vomiting and

increased sensitivity to light or sound can occur before or within the headache.

There are many types of migraine, including: migraine with aura – is a classical migraine, characterized by presence of aura which is recurrent reversible focal neurological symptom that gradually develops over 5-20 min lasts for < 60 min, migraine without aura – the most common type, where the migraine headache occurs in absence of aura.

Migraine aura without headache, also known as silent migraine – no headache with presence of aura.³

Cluster headache: characterized by sever, unilateral pain occurring on periods in which headaches are experienced frequently and regularly (e.g. at the same time each day, 8 times per day or, every 2 days.), separated by remission periods (no headaches), symptoms such as: ipsilateral lacrimation, injected conjunctiva, Horner's syndrome, and nasal stuffiness can have associated with it.⁴

We conduct this study to identify the prevalence of each type of primary headache among medical students at Tabuk University to evaluate headache burden on their academic achievement.

METHODOLOGY

Cross sectional study conducted in college of medicine, university of Tabuk at Tabuk city in Saudi Arabia on male and female medical students. Data collected via distributing a structured questionnaire assessing the prevalence of each type of primary headache and their burden on their academic achievement within the college campus. The analysis included descriptive statistics and graphs.

Ethical Consideration

The study proposal was sanctioned by the ethical committee of the college. Study was explained to participant and informed consent was taken from the participant.

Statistical Analysis

The collected Data were entered and analyzed using the Statistical Package for Social Sciences (SPSS) statistical program version 19.

Table 1: Age, gender characteristic and educational level of study participants.(Total :- 325)

Gender		Educational level	
Male	159 participants (48.9%)	1st year	87 participants, 26.7%
Female	166 participants (51.1%)	2nd year	57 participants, 17.5%
		3rd year	56 participants, 17.2%
Age		4th year	18 participants, 5.5%
18-24 years	312 participants (96%)	5th year	150 participants, 46.1%
20 – 30 years	11 participants (4 %)	6th year	55 participants, 16.9%

Table 2.Characteristic of headache among participants.

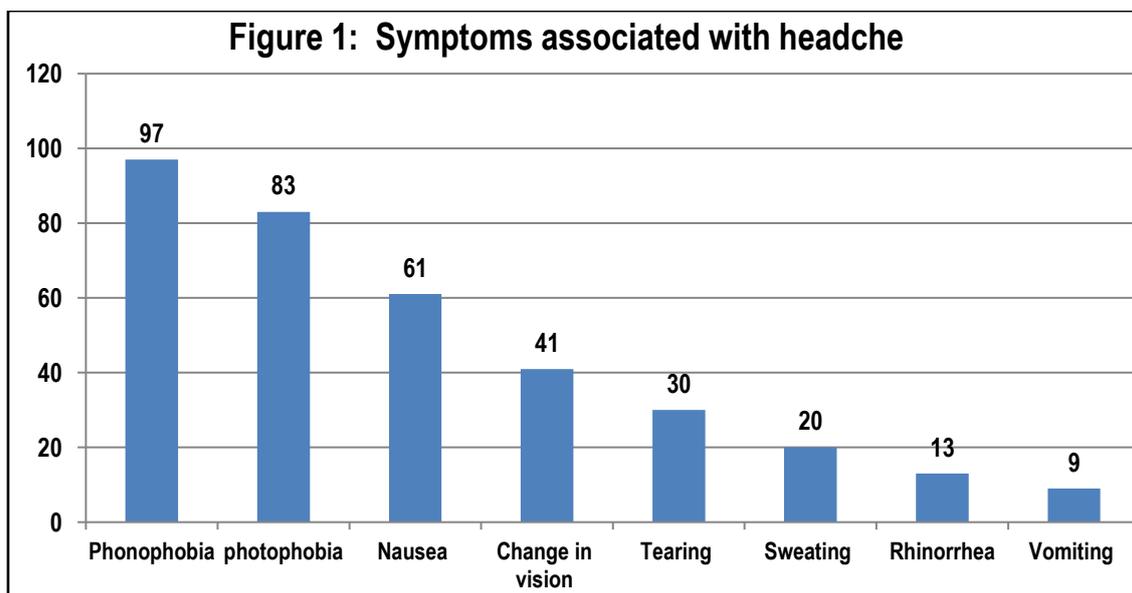
Q.1: In the last 3 month how frequently you had headache?					
Daily (33 parson)	Once per week (47 parson)	Twice per week (80 parson)	Once per month (70 parson)	Twice per month (47 parson)	Three times per month (14 parson)
Q.2: Indicate the site of headache?		Q.3: Determine the duration of the headache?			
Unilateral (60 person)	Bilateral (170 person)	Orbital (45 person)	30min-days (74 person)	15 min - 3 hrs (208 person)	4hrs - 72 hr (39 person)
Q.4: What is the onset of the headache?		Q.5: What are the characteristics of the headache?			
Sudden (81person)	Gradual (207 person)	Throbbing (127 person)	Pressure like (166 person)	Stepping (20person)	

RESULTS

A total 325 male and female medical students in Tabuk university at Tabuk city were included in the study. Most of them age between 18-24 years (313 participants), majority study in fifth year. (Table 1)

Out of 325 participants only 60 (18.4%) diagnosed with primary headache, hundred fifty one (46.4%) have at least one first degree

relative diagnosed with primary headache. The main headache types indicated by study participants are migrant with aura (41.6 %), tension headache (31.6%), migrant without aura (18.3%) and cluster headache (16.6%). Main aura types associated with migrant were: visual followed by sensory. Almost one third had headache twice per week. (Table 2)



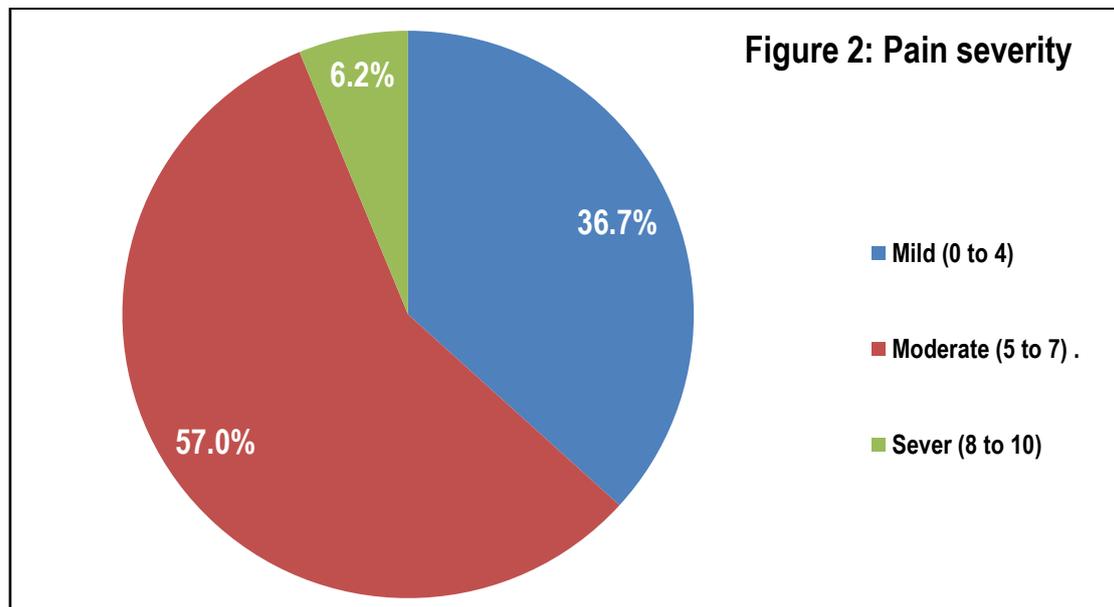


Table 3: Factor cause headache

Factor	Number	Percentage
Insomnia	202	62 %
Anxiety	106	32.6%
Bright light	101	31%
Reading	99	30%
Caffeine withdrawal	74	22.7%
Hunger	69	21.2%
Menstrual cycle	38	11.6 %
Use of OCP	38	11.6%

Table 4: Factor aggravates and relives the headache

Factor aggravate headache			Factor relive headache		
Factor	Number	Percentage	Factor	Number	Percentage
Loud voices	174	53.5%	sleeping	199	61.2%
Exhaustion	156	48%	Relaxation	157	48.3%
Bright light	145	44.6%	Quit place	125	38.4%
Sport	24	7.3%	Medication	77	23.6%
cough	23	7%	Caffeine	77	23.6%

Phonophobia (29.8%), photophobia (25.5%) and nausea (18.7%) were the main associated symptoms with headache, majority of study participant indicated their pain score for headache as the following: 36.7% stat that they has mild headache with pain score between zero to four, 57% feel moderate headache with pain score between fife to seven and only 6.2% feel severe headache with pain score between eight to ten. (Figure 1, Figure 2)

As shown in Table 3, 4: Insomnia, anxiety and bright light were the main causing factor to initiate headache as stated by study participants .The main Factor aggravate headache include: Loud voices, exhaustion and bright light. On the other hand the main relieving factors were sleeping, relaxation and quit places.

201 out of 325 believe that headache affect their study performance in several way, including but not limited to inability to concentrate, memorization and affect performance in the exam.

DISCUSSION

As shown in many studies there is relation between being a medical student and having a headache.

In a study done in Pakistan 2013, to evaluate the frequency, predisposing factors and symptomatology of headache among medical the most prevalent type of headache is tension type headache (79%).⁵

Another study done in Iran 2011, to evaluate the frequency of different types of headache and associated factors in medical student, show that the prevalence of headache was 58.7%, the prevalence of migraine, and tension-type headache was 14.2% and 44.2%, respectively. A family positive history was found in 9.5% of students with headache.⁶

In contrast to the previous studies our study indicate that the main prevalent primary headache is migrant with aura (41.6 %) followed

by tension headache (31.6%). Family history of headache was positive in 46.4%.

CONCLUSION

Steps such as education about headache type, aggravating factor, reliving factor and proper use therapeutic and prophylactic medication are required to improve the health states and academic performance of medical students.

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