

**PREVALENCE OF MIGRAINE HEADACHE AMONG PEOPLE IN DAWADMI CITY,
KINGDOM OF SAUDI ARABIA: CROSS SECTIONAL STUDY**

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ABSTRACT

Background- Many people are complaining of headache, especially irregular sleep and stress, which are commonly associated with migraine attacks. **Objectives-** To assess the prevalence of migraine headache among people in dawadmi city (Saudi Arabia) and to determine the common causes factor. **Methods-** A cross-sectional study was done among 450 people among Dawadmi city. who had suffered from two or more headaches in the previous 3 months were subjected to the ID Migraine screening test, then who had at least two positive answers of the screening test were confirmed as a migraineurs-based on the diagnostic criteria of the International Headache Society for migraine. **Results-** Migraine was detected among 123 out of 450 people (27.3%). stress was the most triggering factors of migraine in 40/123 (32.5%). The phonophobia was more frequency than other symptoms (63.4%). The young adults more frequency of migraine (49.6%). **Conclusions:-** The prevalence of migraine among people in Dawadmi City was high in comparison to other studies. The study recommend raising awareness towards migraine.

INTRODUCTION

Migraine is a neurological disorder that represents a significant global health problem due to its frequency and substantial disability.^[1] Migraine has a prevalence of 12–18%, which has been shown to be both age and gender dependent in community-based studies worldwide.^[2] Previous studies showed that stress, sleeplessness, eating habits, menstrual cycle, changes in weather conditions and temperature, oral contraceptives and physical activities are factors that most trigger migraine attacks. The most common migraine triggers are lack of sleep and stress along with smoking that all can be a precipitating factor for migraine attack.^{[3][4]} The prevalence of migraine is higher among medical students in Kuwait University compared to other published studies. The migraine prevalence, frequency and headache severity, all increased in the final two years of education.^[5] Previous studies of migraine in Saudi were done in 1997 yielding a crude prevalence of 12.1%.^[6] International Headache Society (IHS) has facilitated epidemiological research on headache by providing uniform case definitions for the broad range of disorders that produce headache.^[8]

Objectives

- ✓ Prevalence of migraine in Ad-Dawadmi.
- ✓ Determine the common cause's factor.

Significance of study

Migraine significant global health problem due to its frequency and causes economo-social problems.

Methods**Study design**

This was a cross-sectional study among people in Dawadmi city.

Sample size

A total of 450 people were enrolled in the study. One hundred sixty seven (37.1%) were male, and 283 (62.9%) were female. The study was applied by questionnaire among people in Dawadmi city form 23rd of November until 21st of December 2017.

Data collection and measures

The study was applied by questionnaire and the questionnaires was three part:

- ✓ First part was prepared to collect to general characteristics of the Participants (gender, age groups, jobs, lifestyle and medical conditions) of those suffering of headache.
- ✓ Second part was about characteristics of headache (onset, spread, causes and what make the headache relieve).
- ✓ Third part which related to the diagnostic criteria of the International Headache Society (HIS)^[9] for migraine and which included The Migraine Disability Assessment Test.^[10]

Data management

Data was coded and statistically analyzed using Statistical package for the Social Science (SPSS) version

23. The threshold of statistical significance was set at P value < 0.05 .

RESULTS**Table 1: Show the general characteristics of the Participants.**

Variables	Data	N = 450	Percent %
Gender	Male	167	37.1
	Female	283 {P(19)*}	62.9{6.7}
Age	15-24	187	41.6
	25-39	189	42
	40-59	73	16.2
	More than 60	1	0.2
Social status	Single	213	47.3
	Married	237	52.7
Medical condition	Healthy	383	85.1
	Diabetes	13	2.9
	Hypertension	20	4.4
	Other **	34	7.6
Smoking	Yes	74	16.4
	No	366	81.3
	Ex-smoker	10	2.2

*P(19): this meaning 19 women pregnant.

** Do you have other chronic diseases ?? It was open end question. The answers were e.g asthma, heart diseases and others.

Table (2): Showed migraine and non-migraine prevalence according to the general characteristics of the Participants. Females had higher frequency of migraine (60.1%) than males (39.9%) with significant association ($p < 0.05$). young adult had migraine episodes more than other groups (49.6%) with significant ($p < 0.01$).

Characteristics	Migraine		Non – Migraine		χ^2 test	P – value
	No	%	No	%		
Gender : Male	49	39.9	118	36.1	0.539	0.462
Female	74	60.1	209	63.9		
Age group : 15 – 24	61	49.6	126	38.5	5.068	0.167
25 – 39	43	35	146	44.6		
40 – 59	19	14.6	54	16.5		
More than 60	0	0	1	0.3		
Total	123	27.3	273	72.7		

Table (3): Showed the frequency symptoms were usually association with migraine (NO=123). the phonophobia was more frequency than other symptoms (63.4%).

Symptoms	NO	%
Nausea	44	35.7
Vomiting	42	34.1
Photophobia	46	37.4
Phonophobia	78	63.4
Pulsating pain	38	30.9

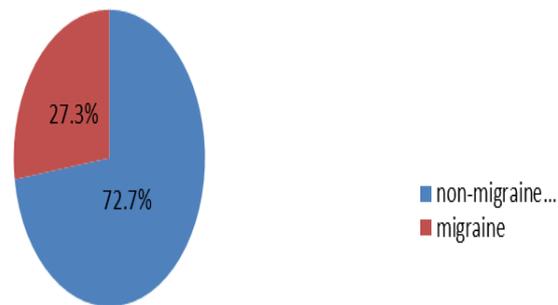
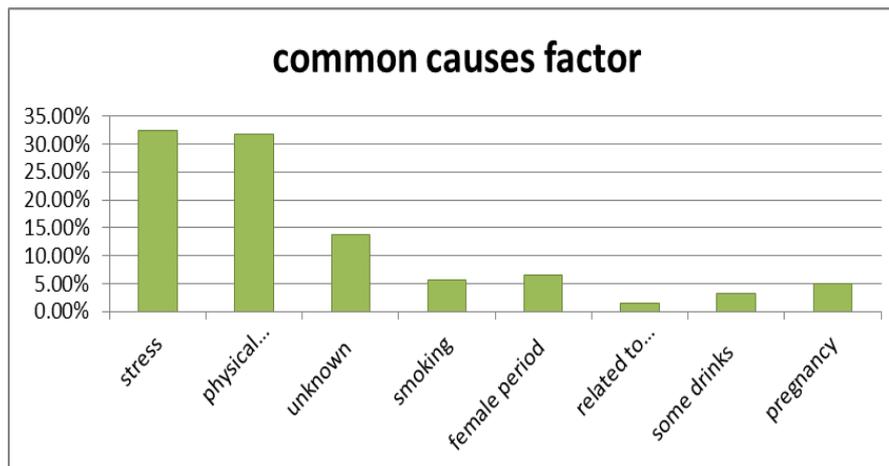


Figure (1): According to international headache society (IHS) criteria of migraine diagnosis, the figure showed that out of 450 people, 123 people were migraine suffering (27.3%).



Figure(2): The above figure, revealed that stress was the most triggering factors of migraine in 40/123 (32.5%) of migraine people, followed by physical stimulation (light, loudness, change in weather, certain smells, poor posture, prolonged use of computer) in (31.7%) then unknown causes in (13.8) females period, smoking, and pregnancy with frequency (6.5%, 5.7%, 4.9%). some drinks like (alcohols, coffee) and some diseases had less causes (3.3% and 1.6%).

DISCUSSION

This is a first study of people suffering from migraine in dawadmi city, Saudi Arabia. There are few studies focusing on migraine in Saudi were done in 1997 yielding a crude prevalence of 12.1%^[6] other studies detect the migraine in specific groups of people (medical school students, high school students).^[5,7,11]

A screening test for the identification of migraine type headaches (ID Migraine) has been used, and then migraine headache was confirmed by IHS criteria for migraine.^[12]

In our results showed that stress was the most triggering factors of migraine (32.5%) among migrainic people, followed by physical stimulation (light, loudness, change in weather, certain smells, poor posture, prolonged use of computer) in (31.7%) Whereas Physical stimulation. As (light, loudness, change in weather, certain smells) were the most triggering factors of migraine in 170/244 (69.7%) of migraine students.^[7]

In this study the young adults (15-24) had more migraine (49.6%) which is high similar to previous study done in Saudi 1997 (37.57%).^[6]

Present study, the frequency symptoms showed the phonophobia (63.4%) was the most symptoms, followed by photophobia (37.4%) while Pulsating pain (30.9) came at least of frequency symptoms which is less the Winner P study.^[13]

In the current study, migraine in pregnant women was (21%) of female pregnant enroll in this study which has no change in migraine episodes during pregnancy.^[14]

The difference between our results and others in the prevalence of migraine could be explained by the number of people enroll in this study are less.

CONCLUSIONS

The study reveal that the prevalence of migraine among people in dawadmi city was high (27.3%), compared to other studies. Stress, Physical stimulation, Unknown, and period (in females) were the most common triggering factors.

Recommendations

Since migraine prevalence was higher than expected compared to other studies. So we recommend raising awareness of migraine among people.

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