

"MIGRAINE: PREVALENCE AMONGST STUDENTS OF HEALTH UNIVERSITY OF NORTH INDIA"**Medical science**

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ABSTRACT

Migraine is a common neurological ailment which affects the quality of life of the patients. In students, migraine affects academic performance due to low attendance during episodes and a compromise of quality of life. It adversely affects the daily chorus and the patient feels disruption in lives. This cross-sectional, questionnaire-based study was conducted to determine the prevalence of migraine among Medical, Dental and Nursing students of age group of 17 to 25 years in a government medical college under university of health sciences of India. A structured questionnaire was designed and provided to the medical, dental and nursing students. Data was collected and analysed to assess the history of headache, location (unilateral/bilateral/frontal), severity, duration, character and family history of headache. Various triggers for headache were also elaborated in the study. Migraine was diagnosed using ID migraine questionnaire which was supplied to the subjects later who were either suspect or confirmed patients of migraine (identification of migraine questionnaire). In this study total sample size of $n = 439$, out of 344(78.3%) were female and 95(21.7%) male. Medical students comprised of 172 students (39.17%), 83(48.25%) males and 89(41.75%) females respectively, 50 (11.38%) dental students amongst which 38 were (76%) females and 12(24%) males, 217(49.45%) nursing students comprising all females. 138(31.43%) students had complaint of headache. Prevalence of migraine among all students was found to be 5.2% ($n = 23$), predominated by nursing students that is out of total 23 students, 15 were nursing students (65%) suffering from migraine, 7(30%) medical students out of which 1(14.3%) was male and 6(85.7%) females were found to be suffering from migraine, only 1(2%) female dental student out of 50 was found to be suffering from migraine. Maximum subjects i.e 22 out of 23 reported their functional disability within mild impairment. Triggers for migraine included lack of sleep, abnormal sleeping hours, exam and academic stress, high and loud music, bright light and few of them reported food as also triggering factor. All the migraineurs used some sort of analgesic for relief, and took tea/coffee, sleep and avoidance of light as remedy for it. 5 students amongst all were reported to be on active migraine treatment. This study conclude that prevalence of headache and migraine is lower among medical students in Health University of Haryana, India compared to other published studies with the limitations of lower enrolment of higher professional students and lack of knowledge related to migraine in students.

KEYWORDS

Headache; Migraine; Identification of Migraine Questionnaire; Triggers; Medical Students; Dental students; Nursing students.

INTRODUCTION:

Headache is considered as one of the most common central nervous system disorder, and many types of headache are described. One of them is migraine headache. Worldwide it is a common disabling primary headache syndrome. Medical students are exposed to its various triggers almost most of the times. This might have huge impact on their personal, academic and social lives. Headaches are one of the most common neurological disorders. Primary headache disorders include tension-type headache, migraine, and cluster headache.¹ Prevalence is worldwide and people of all age groups are affected, irrespective of gender, socioeconomic status, educational level and occupation. Migraine is a complex brain event that produces a wide range of neurological, autonomic, and systemic symptoms, of which headache is most prominent.² Migraines can cause a great deal of suffering and affect the quality of life adversely. Frequent attacks can negatively affect family and social life, and academic performance among students resulting adversely their choice of future employment.^{3,4} Migraine associated increased risk of depression is also reported in various studies.^{5,6} The undergraduate medical course - MBBS in India lasts for 5 and ½ years including internship with a rigorous and demanding curriculum. The long training hours and academic performance pressure looms over during whole duration of the course, with long examination and internal assessment exercises. Headache of any type and particularly migraines can be disruptive and adversely affect the academic, social, and personal lives of students. Other fields of medical studies like Dental and Nursing too are demanding and academic oriented with long hours of institutional and hospital training. In view of this scenario, it becomes all the more imperative that the health issues of the young doctors, who form the pillars of the scientific, economic, social, and healthcare community of the country, must be addressed and treated so that they can render valuable service to the community. Several studies have been conducted both in India and abroad on prevalence and character of

headaches. Study subjects for most of these studies are general population or patients visiting hospitals. There is a paucity of information on prevalence, pattern, and therapy-seeking behaviour among medical student population in India. Studies on the prevalence of migraine among medical students, who form a niche group of the general population, will help in identifying high-risk groups among the study population, identifying triggers and knowing the impact of migraine on their quality of life. This study was conducted to determine the prevalence of migraine among medical students in a tertiary care medical college and hospital of Delhi NCR, India and also to assess the impact on migraine on their daily lives, intensity of migraine, and their therapeutic options seeking behaviour, so adequate steps may be taken to prevent as well as adequately treat this ailment.

MATERIALS AND METHODS:**Study design:**

This is a cross-sectional, questionnaire-based study and was conducted during 2018-19. A structured questionnaire i.e ID questionnaire for migraine was provided.

Ethical justification:

No ethical issue pertains to this study as far as ethical issues are concerned. A written self-explanatory consent was obtained from all the participants. All individuals enrolled in the study were explained about the study and its purpose, ensured their confidentiality, and the participants were given the right to continue or discontinue the study according to their desire. No drugs or any other substance was either used or prescribed during and after the study period and only responses were recorded as per the Questionnaire.

Sample collection:

Medical, Dental and Nursing students of government medical college under health university of Haryana state in India were taken. In this

study with total sample size of $n = 439$, 344(78.3%) were female and 95(21.7%) male. Medical students comprised of 172 students (39.17%), 83 (48.25%) males and 89(41.75%) females respectively, 50(11.38% of sample size) dental students amongst which 38 were (76%) females and 12(24%) males, 217 (49.45%) nursing students comprising all females.

Data collection:

The data was collected and analysed to assess the history of headache, location (unilateral/bilateral/frontal), severity, duration, character and family history of headache. Various triggers for headache were also elaborated in the study.

Migraine was diagnosed using ID migraine questionnaire which was supplied to the subjects later who were either suspect or confirmed patients of migraine (identification of migraine questionnaire).

STATISTICAL ANALYSIS:

The data thus collected was observed and analysed using SPSS software 22. It was taken in number and percentage.

OBSERVATIONS AND RESULTS:

Prevalence of migraine among all students was found to be 5.2% ($n = 23$), predominated by nursing students that is out of total 23 students 15(65%) were found to be suffering from symptoms related to migraine, 7 (30%) medical students out of which 1(14.3%) was male and 6(85.7%) females were found to be suffering from migraine, only 1(2%) female dental student out of 50 was found to be suffering from migraine. Maximum of student i.e 22 out of 23 reported their functional disability within mild impairment. Triggers for migraine included lack of sleep, abnormal sleeping hours, exam and academic stress, high and loud music, bright light and few of them reported food as also triggering factor. All the migraineurs used some sort of analgesic for relief, and took tea/coffee, sleep and avoidance of light as remedy for it. 5 students amongst all were reported to be on active migraine treatment.

Table 1: Showing demographic distribution of subjects recruited in the study.

Demographic distribution of subjects recruited in the study			
Characteristics	Gender		Total
	Male	Female	
MBBS (172,89,83)	83	89	172
BDS	38	12	50
Nursing	217	00	217

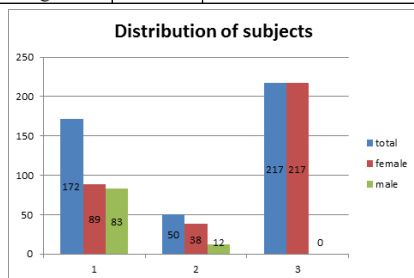


Table 2: Showing distribution of subjects suffering from migraine stream wise.

Demographic distribution of subjects with migraine			
Characteristics	Gender		Total n=23.
	Male	Female	
MBBS	01	06	07
BDS	01	01	01
Nursing	15	15	15

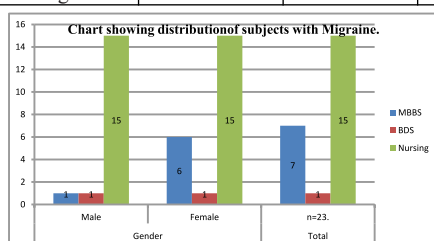


Figure 2: Showing Distribution Of Subjects Stream-wise.

Table 3: Showing triggers for migraine in the study group.

Lack of sleep	26%
Abnormal sleep hours	24%
Exam and academic stress	21%
High and loud music	13%
Bright light	14%
Food	6%
Other	6%

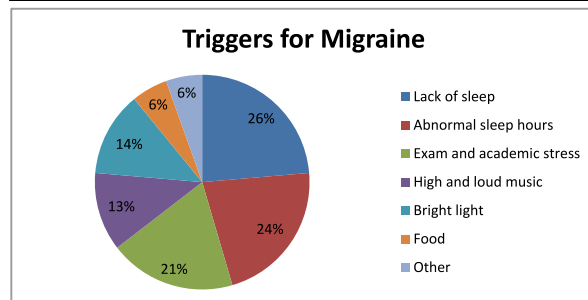


Figure 3: Showing Trigger Factors For Migraine In Study Group.

DISCUSSION:

The study indicated that the prevalence of migraine in our target population was 5.2%. This is in consonance with many of previous studies available in literature. This figure was closely related to that found by Ojini et al in Nigerian study i.e (6.4%)⁷, by Shahrakai et al in Iran- Zahedan (7.14%)⁸ and one other study by Falavigna A in Brazil (6.9%)⁹. This is in contrast to one study by Menon P that reported prevalence of migraine in medical students upto 28%.¹⁰ Though one study from Kuwait also reported almost similar prevalence of migraine in Kuwaiti medical students i.e 27.9% and it created contrast to our study also.¹¹ We observed a female preponderance in our study, though a few studies remained neutral on gender and showed almost same prevalence.¹² Al Tulaihi et al, Johnson et al and Baykan B et al in Kuwait, USA and Saudi Arabia also showed female preponderance as we observed in our study.¹³⁻¹⁵

CONCLUSION:

The objective of this study was to assess the prevalence of migraine in health university of Haryana, north India. Though few studies reported a very high prevalence of migraine amongst medical students in India and other gulf countries, the prevalence was found almost equal to many studies performed all over the world. Female gender preponderance was also seen in our study as reported by many studies globally but a few studies also reported equal prevalence in both genders. All the students reported that headache was interfering with their daily chorus. Lack of sleep, irregular sleeping pattern, exam stress, loud music and bright light were the most common triggering factors found.

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