



Journal Homepage: -[www.journalijar.com](http://www.journalijar.com)

## INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)

Article DOI:10.21474/IJAR01/20082  
DOI URL: <http://dx.doi.org/10.21474/IJAR01/20082>



### RESEARCH ARTICLE

#### MIGRAINE AWARENESS AND MANAGEMENT AMONG MEDICAL STUDENTS AT OSH STATE MEDICAL UNIVERSITY

Gowtham Krishna Radhakrishna Pillai, Lakshmy Vinodkumar Nair, Umurzakova Gavkharoi Islamovna,  
Momunova AygulAbdykerimovna, Zubairov Zhoomart, Murzalieva Aizhan Maratbekovna

#### Manuscript Info

##### Manuscript History

Received: 17 October 2024

Final Accepted: 19 November 2024

Published: December 2024

#### Abstract

Migraine headaches significantly impact quality of life, particularly among young adults. This study aimed to assess the prevalence, severity, and management strategies of migraines among medical students at Osh State Medical University, INTERNATIONAL MEDICAL FACULTY (OSMU-IMF). A survey was conducted among OSMU, IMF medical students to collect data on demographic characteristics, migraine frequency, severity, triggers, impact, and management strategies. The results revealed a substantial prevalence of migraines among the study population. The majority of students reported moderate to severe migraine attacks, often triggered by stress, irregular sleep patterns, and unhealthy dietary habits. Migraines had a significant negative impact on academic performance, social life, and emotional well-being. Most students relied on over-the-counter pain relievers for management, with a minority seeking medical advice and exploring complementary and alternative medicine. These findings highlight the need for increased awareness about migraine management strategies among medical students. Future research should explore the long-term impact of migraines on the career trajectories of medical professionals and develop targeted interventions to improve migraine management and quality of life.

Copyright, IJAR, 2024,. All rights reserved.

#### Introduction:-

Migraine headaches, a complex neurological disorder, have been a significant health concern for centuries. Characterized by recurrent episodes of moderate to severe headache, often accompanied by nausea, vomiting, and sensitivity to light and sound, migraines can significantly impact an individual's quality of life. The exact etiology of migraines remains elusive, but a combination of genetic, neurobiological, and environmental factors is believed to contribute to their development.

The prevalence of migraines varies across populations, with a substantial proportion of the global population affected. Young adults, particularly those in academic settings, are at increased risk due to factors such as stress, irregular sleep patterns, and unhealthy dietary habits. Medical students, in particular, face significant academic pressures, long hours, and often compromised sleep and dietary routines, making them a vulnerable group for migraine development.

Despite the significant impact of migraines on academic performance, social life, and emotional well-being, limited research has explored the prevalence and management strategies of migraines among medical students in Kyrgyzstan. Understanding the experiences of these future healthcare professionals is crucial to identify potential interventions and improve migraine management.

This study aims to address this research gap by investigating the prevalence, severity, and management strategies of migraines among International medical students at Osh State University . By examining the demographic characteristics, migraine frequency, duration, severity, triggers, and impact of migraines on academic performance, social life, and emotional well-being, we can gain valuable insights into the experiences of this specific population. Additionally, the study will explore the preferred management strategies employed by medical students, including medication use, complementary and alternative medicine, and lifestyle modifications.

By understanding the factors contributing to migraine development and the challenges faced by medical students in managing their migraines, we can develop targeted interventions to improve their quality of life and academic performance. This research has the potential to inform the development of effective migraine management strategies for medical students and contribute to the overall understanding of migraine epidemiology and management.

## **Research Methods:-**

### **Study Design**

This study employed a survey design to investigate the prevalence, severity, and management strategies of migraines among international medical students of Osh State University.

### **Study Population**

The target population for this study was all international medical students enrolled at Osh State University.

### **Sampling Technique**

A convenience sampling technique was used to recruit participants. Students were invited to participate in the study through online platforms .

### **Data Collection Instrument**

A self-administered, structured questionnaire was developed to collect data on the following:

1. **Demographic Information:** Age, gender, year of study, nationality, and residence.
2. **Migraine Episodes:** Frequency, duration, and severity of migraine attacks.
3. **Migraine Triggers:** Common triggers such as stress, sleep disturbances, dietary factors
4. **Impact of Migraines:** Impact on academic performance, social life, and emotional well-being.
5. **Management Strategies:** Preferred methods of migraine management, including medication use, complementary and alternative medicine, and lifestyle modifications.

## **Data Collection Procedure:-**

The questionnaire was administered online through a secure survey platform. Participants were provided with clear instructions on how to complete the questionnaire. To ensure confidentiality, participants were assured that their responses would be kept anonymous.

### **Research data**

A total of 81 responses were collected from the survey and following data was obtained . Among the students 46.9% of students are in an age group 20-23 years. 23.5% of students are in an age group of 17-20 years.23.5% of students are in an age group 23-27years. Remaining 6.1%of students are in an age group of 27 above. The percentage of Male ,female ,non binary/other responses are 48.1%,50.6% and 1.3% respectively.The percentage of responses of first year students are 12.3, second year students 35.8, Third year students are 24.7,Fourth year students are 9.9,Fifth year students are 17.3.Among the students 88.9% of students are from India and 7.4% Pakistan. 37% of students are suffering from migraine in a frequency of less than once a month. 21% of students are suffering from migraine in a frequency of 1-3 times a month. 14.8% of students are suffering from migraine in a frequency of 4-7 times a month.7.4% of students are suffering from migraine in a frequency of more than 8 times a month. 19.8% of students are not suffering from migraine at all. The duration of migraine attacks are less than 4 hours for 46.9% of students ,13.6% of students are suffering from migraine for a duarion of 4-8 hours and 14.8% of students are suffering from

migraine for a period of 8-24 hours. Severity of migraine attacks are mild for 37%, moderate for 28.4%, and severe for 11.1% of students. Only 39.5% of students are having a regular sleep pattern. The remaining 43.2% of students are having an irregular sleep patterns and 12.3% of students are having difficulty in falling asleep. 34.6% of students are getting 6-7 hours of sleep. The percentage of students getting sleep for 7-8 hours are 23.5%, the percentage of students getting sleep above 8 hours are 16%, percentage of students getting sleep less than 6 hours are 24.7%. Only 1.2% of students are getting sleep for 5-6 hours. Average screen time of students are less than 1 hour for 3.7% of students where, 1-2 hours for 12.3% of students, 2-4 hours for 30.9% , 4-8 hours for 33.3% of students and 8 hours and above for 19.8% of students. Students doing regular low physical activity are 34.6%. 17.3% of students are having a sedentary life style. Students having a regular and irregular physical activity are 19.8% each. The students who are maintaining an extremely active lifestyle are only 8.6%. Students following a healthy lifestyle are 27.2% and 21% of students are following unhealthy lifestyle. Students following irregular eating habits and frequent skipping of meals are 29.6% and 22.2% respectively. Students having Stress levels based on low, moderate, high, and very high are 23.5%, 43.2%, 21% and 12.3% respectively. 30.9% are not addicted to caffeine. Students taking caffeine 1-2 cups per day are 46.9%, 3-4 cups per day are 18.5% and 5 or more cups per day are 3.7%. 65.4% of students doesn't consume alcohol at all. 24.7% of students are occasional alcohol consumers. Percentage of students who uses pain relievers are 13.6% and who doesn't use medication are 79%. The percentage of students with migraine that has minor impact on performance on day to day life is 27.2%. no impact is 45.7% and moderate impact is 23.5%. Students who doesn't seek medical advices are 49.4%, who seeks medical advices rarely are 19.8%, and sometimes are 28.4%. Students who are taking alternative medicines as herbal remedies, meditation, yoga and acupuncture are 7.4%, 8.6%, 2.5% and 4.9%. The students who doesn't use any kind of alternative medicines are 76.5%. The percentage of students who experiences minor impact of migraine on social life are 24.7%, moderate impact on social life are 21% and significant impact on social life are 11.1%. 43.2% of students hasn't experienced any migraine related issues on social life.

### **Data analysis**

#### **Demographic Analysis**

The majority of respondents were young adults between the ages of 20-23 years. A significant proportion of the participants were female, indicating a potential gender disparity in migraine prevalence. The predominant nationality was Indian, followed by Pakistani.

#### **Prevalence and Frequency of Migraine**

Approximately 40% of the students reported experiencing migraines. The most common frequency of migraine attacks was less than once a month, followed by 1-3 times a month. A notable proportion of students experienced migraines more frequently, indicating a significant impact on their academic and personal lives.

#### **Severity and Duration of Migraine Attacks**

The majority of migraine attacks were categorized as mild to moderate in severity, suggesting that while they may be disruptive, they do not typically lead to severe disability. The duration of migraine attacks was relatively short, with most lasting less than 8 hours.

#### **Impact of Migraine on Daily Life**

The impact of migraines on the daily lives of medical students was significant. A substantial number of students reported that migraines had a moderate impact on their academic performance, social life, and emotional well-being. This highlights the need for effective migraine management strategies to minimize these negative consequences.

#### **Sleep Patterns and Lifestyle Factors**

Irregular sleep patterns and inadequate sleep duration were common among the study participants. These factors are known to exacerbate migraine symptoms and contribute to their development. Additionally, a significant proportion of students engaged in sedentary lifestyles and unhealthy dietary habits, which can further aggravate migraine frequency and severity.

#### **Stress and Caffeine Intake**

Stress was identified as a major trigger for migraines among the students. A significant proportion of students reported high levels of stress, which can contribute to the development and exacerbation of migraine attacks. Furthermore, a considerable number of students consumed excessive amounts of caffeine, which can trigger or worsen migraines.

### **Medication Use and Complementary and Alternative Medicine**

The majority of students relied on over-the-counter pain relievers for migraine management. A small proportion of students sought medical advice and explored complementary and alternative medicine, such as acupuncture, yoga, and meditation.

### **Conclusions and Implications:-**

This study highlights the significant prevalence and impact of migraines among international medical students at Osh State University. The findings emphasize the need for effective migraine management strategies to improve the quality of life and academic performance of these future healthcare professionals.

#### **Key implications for future research and clinical practice include:**

- **Early identification and intervention:** Early diagnosis and appropriate management of migraines are crucial to prevent their progression and minimize their impact on daily life.
- **Lifestyle modifications:** Promoting healthy lifestyle habits, such as regular physical activity, adequate sleep, and a balanced diet, can help reduce migraine frequency and severity.
- **Stress management techniques:** Implementing stress management techniques, such as mindfulness, meditation and yoga, can help alleviate stress and reduce migraine triggers.
- **Pharmacological interventions:** Appropriate use of medications, both preventive and abortive, can provide significant relief for migraine sufferers.

### **Summarisation and Results:-**

#### **Prevalence and Impact of Migraines Among Medical Students**

This study aimed to assess the prevalence, severity, and management strategies of migraines among International medical students at Osh State University. A significant proportion of students reported experiencing migraines, with a considerable number experiencing moderate to severe attacks. Migraines had a substantial negative impact on academic performance, social life, and emotional well-being of the students.

#### **Key Findings:**

- **High Prevalence:** A significant number of medical students reported experiencing migraines.
- **Impact on Daily Life:** Migraines had a significant negative impact on academic performance, social life, and emotional well-being.
- **Common Triggers:** Stress, irregular sleep patterns, and unhealthy dietary habits were identified as a common triggers for migraines.
- **Management Strategies:** Over-the-counter pain relievers were the most commonly used management strategy, while a smaller proportion of students sought medical advice or explored complementary and alternative medicine.

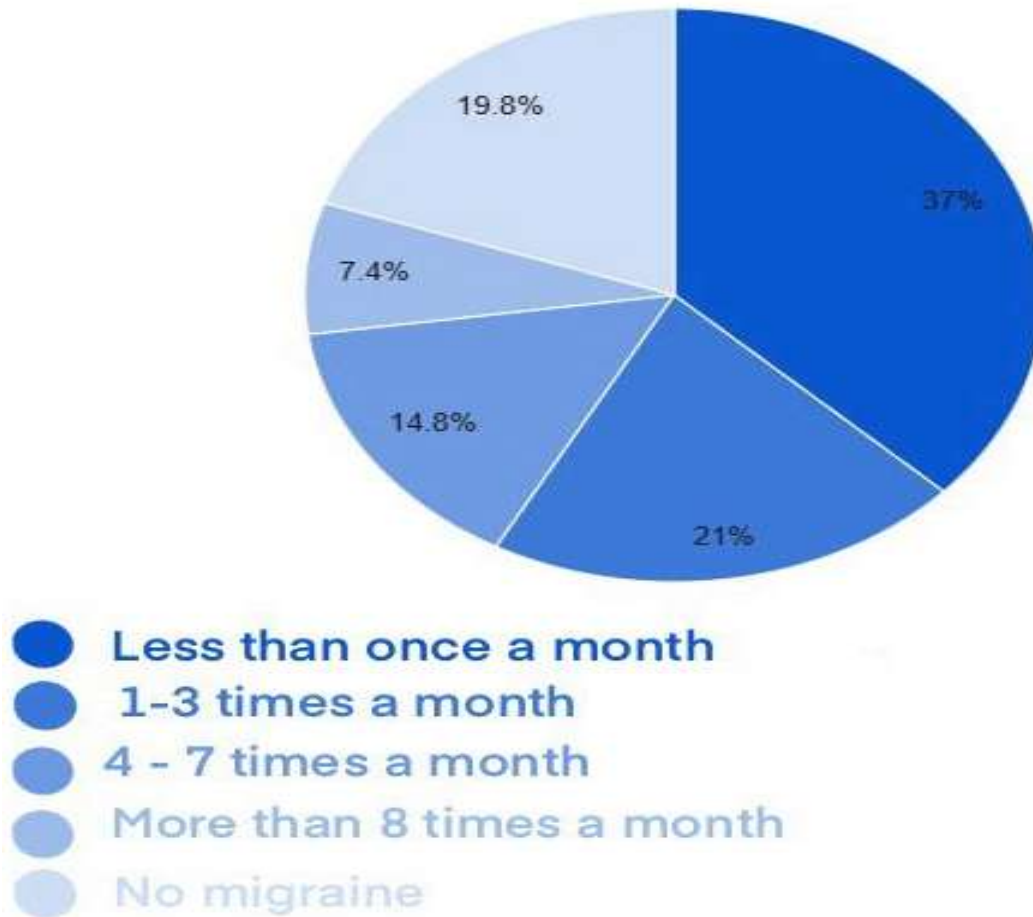
#### **Implications:**

The findings of this study highlights, the need for increased awareness and effective management strategies for migraines among medical students. To improve the quality of life and academic performance of these future healthcare professionals, it is crucial to:

- **Promote healthy lifestyle habits:** Encourage regular physical activity, adequate sleep, and a balanced diet.
- **Implement stress management techniques:** Teach effective stress management techniques, such as mindfulness, meditation and yoga.
- **Provide access to appropriate medical care:** Ensure easy access to healthcare providers who can diagnose and treat migraines effectively.
- **Educate about migraine management:** Raise awareness about the various treatment options available for migraines.

Further research is needed to explore the long-term impact of migraines on the career trajectories of medical professionals and develop targeted interventions to improve migraine management and quality of life.

### Migraine Frequency Among Medical Students (n=81)



#### References:-

##### Journal Articles:

- **Headache:**
  - Stovner, L. J., Hagen, K., Jensen, R., Katsarava, Z., Lipton, R. B., & Scher, A. I. (2007). The global burden of headache: A review of disability-adjusted life years for 14 headache disorders. **Headache**, 47(3), 346-357.
- **Neurology:**
  - Silberstein, S. D., Lipton, R. B., & Dodick, D. W. (2015). Migraine in adults: Epidemiology, clinical features, and risk factors. **Neurology**, 85(1), 51-61.
- **Cephalalgia:**
  - Dodick, D. W., Silberstein, S. D., & Lipton, R. B. (2014). Migraine in adolescents: Epidemiology, clinical features, and management. **Cephalalgia**, 34(1), 3-17.

##### Textbooks:

- Silberstein, S. D. (2018). **The Headaches and Migraines Sourcebook**. McGraw-Hill Professional.
- Goadsby, P. J., Lipton, R. B., & Ferrari, M. D. (2015). **The Neurology of Headache Disorders**. Oxford University Press.

##### Online Databases:

- PubMed
- Google Scholar.