



*International Conference on “Shaping the Future of Healthcare 5.0: Insights from Nursing Research – 2025” 24<sup>th</sup> and 25<sup>th</sup> September 2025*

*Conference article*

## **A Descriptive Study to Access the Level of Knowledge Regarding Migraine among Undergraduate Nursing Students at Selected Colleges of Bengaluru**

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### **Abstract**

Migraine is a common neurological disorder that affects a large proportion of the adult population worldwide and has significant implications for quality of life and academic performance, especially among students in healthcare professions. The present descriptive study was conducted to assess the level of knowledge regarding migraine among undergraduate nursing students at Smt. Nagarathnamma College of Nursing, Bengaluru. A quantitative research approach with a descriptive research design was adopted. A total of 90 undergraduate nursing students were selected using a purposive sampling technique. Data was collected using a self-structured questionnaire to assess baseline variables and knowledge regarding migraine. Descriptive and inferential statistics were used to analyze the data. The results revealed that 5.6% of students had poor knowledge, 62.2% had average knowledge, and 32.2% had excellent knowledge regarding migraine. A significant association was found between knowledge levels and selected variables such as gender, mother's education, and participation in migraine-related classes, whereas no significant association was observed with other variables including area of residence, type of family, father's education, presence of healthcare workers in the family, family history of migraine, diagnostic history of migraine, exposure to information sources, and experience caring for migraine patients. The findings indicate that while most students have moderate knowledge, targeted educational programs could enhance understanding of migraine and its management among nursing students.

### **Introduction**

Migraine is a common and disabling neurological disorder that significantly affects individuals' quality of

life, productivity, and overall well-being [7]. It is characterized by recurrent episodes of moderate to severe headache, often accompanied by nausea,

### **More Information**

**How to cite this article:** Jerome S, Malagi V, Lagi LT, Roy J, Bhattarai K. A Descriptive Study to Access the Level of Knowledge Regarding Migraine among Undergraduate Nursing Students at Selected Colleges of Bengaluru. Eur J Med Health Res, 2025;3(S1):119-23.

**DOI:** 10.59324/ejmhr.2025.s1.19

### **Keywords:**

migraine,  
quality of life,  
productivity,  
trigger,  
preventive measures,  
healthcare professional.



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vomiting, and sensitivity to light and sound [7]. Globally, migraine ranks among the leading causes of years lived with disability, impacting nearly one billion people each year [7]. Despite its high prevalence, awareness and understanding of migraine remain limited, particularly among young adults pursuing professional courses such as nursing [1-3]. Nursing students are especially vulnerable to stress-related health problems due to academic workload, clinical duties, and irregular sleep patterns, which can trigger or worsen migraine attacks [5,6]. Lack of proper knowledge about migraine triggers, management strategies, and preventive measures may result in poor coping mechanisms and reduced academic performance [3,4,9]. As future healthcare professionals, nursing students play a vital role in educating and managing patients with migraine, making it essential for them to possess adequate knowledge about the condition [1,5,10]. Therefore, the present study was conducted to assess the level of knowledge regarding migraine among undergraduate nursing students at Smt. Nagarathamma College of Nursing, Bengaluru, and to determine the association between their knowledge levels and selected demographic variables.

#### **Purpose of the study**

Migraine is a highly prevalent neurological disorder that poses a significant public health concern in India and worldwide. Studies have shown that nursing students, due to their academic stress, irregular sleep patterns, and extended hours of study and clinical work, are particularly prone to developing migraines or experiencing worsening of symptoms. Despite its impact on daily functioning, productivity, and mental health, migraine is often underrecognized and undertreated, largely due to insufficient awareness and misconceptions about its causes, triggers, and management. Many students tend to neglect early symptoms or rely on self-medication rather than seeking proper medical guidance, which can lead to chronic complications and decreased academic performance. As future healthcare professionals, it is essential for nursing students to possess sound knowledge about migraine to ensure effective prevention, early recognition, and patient education in their future practice. Therefore, this study is needed to assess the existing knowledge regarding migraine among undergraduate nursing students and to emphasize the importance of integrating health education programs focused on headache awareness and management into nursing curricula.

#### **Objectives**

The objectives of the study were:

1. Assess the level of knowledge regarding migraine among undergraduate nursing students.

2. Find out the association between level of knowledge regarding migraine with selected baseline and knowledge related variables.

#### **Hypothesis**

H0: There is no significant association between level of knowledge regarding migraine of undergraduate nursing students with selected baseline and knowledge related variables.

H1: There is a significant association between level of knowledge regarding migraine of undergraduate nursing students with selected baseline and knowledge related variables.

#### **Materials and Methods**

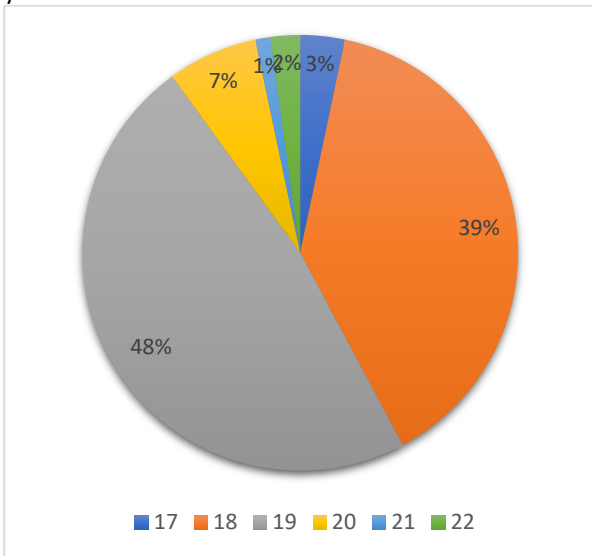
The present study was conducted among 90 undergraduate nursing students from Smt. Nagarathamma College of Nursing, Bengaluru. A quantitative research approach with a descriptive research design was adopted to assess the level of knowledge regarding migraine. Participants were selected using a purposive sampling technique. A self-structured questionnaire was developed to collect data on baseline information and knowledge related to migraine. The tool was validated by subject experts to ensure content validity and reliability. The questionnaire consisted of multiple-choice questions, each carrying one mark, with the total score representing the respondent's overall knowledge level. The data collection process was carried out within the college premises after obtaining formal permission from the institution and informed consent from the participants. The collected data were analyzed using descriptive and inferential statistics such as frequency, percentage, and Chi-square test to determine the association between knowledge levels and selected demographic variables.

#### **Results**

Data analysis is a crucial step in research that converts collected information into meaningful results. In this study, data from 90 undergraduate nursing students were systematically organized and analyzed using descriptive and inferential statistics. Frequency and percentage were used to describe demographic variables and knowledge levels regarding migraine. The findings showed that 5.6% of participants had poor knowledge, 62.2% had average knowledge, and 32.2% had excellent knowledge about migraine. The Chi-square test revealed a significant association between knowledge levels and factors such as gender, mother's education, and participation in migraine-related classes, while no significant association was found with other variables. These results indicate that although most students have a moderate understanding of migraine, targeted educational programs are needed to enhance awareness and knowledge among nursing students.

**Age Groups**

The figure presents the among 90 undergraduate nursing students, 3.3% of students belong to the age group 17 years, 38.9% belongs to age group 18 years, 47.8% belongs to the age group 19 years, 6.7% belongs to the age group 20 years, 1.1% belongs to the age group 21 years and 2.2% belongs to the age group 22 years.



**Figure 1: Age Distribution**

**Table 1: Gender Correlation**

Sl.No	Gender	Frequency	Percentage
1	Male	8	8.9
2	Female	82	91.1
	Total	90	100.0

The table reveal that among 90 undergraduate nursing students 8.9% were male students and 91.1% were female students.

**Table 2. Area of Residence**

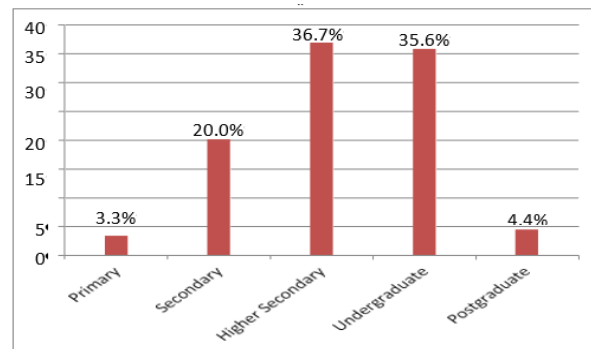
Sl.No	Area of Residence	Frequency	Percentage
1.	Rural	72	80.0
2.	Urban	18	20.0
	Total	90	100.0

The table reveal that among 90 undergraduate nursing students, 80.0% of nursing students reside in rural area and 20.0% of reside in urban area.

**Table 3. Type of Family**

Sl.No	Type of Family	Frequency	Percentage
1.	Nuclear Family	76	84.4
2.	Extended Family	4	4.4
3.	Joint Family	10	11.1
	Total	90	100.0

The table reveal that among 90 undergraduate nursing students, 84.4% of students belong to nuclear family, 4.4% belongs to extended family and 11.1% belongs to joint family.



**Figure 2: Education of Father**

The clustered column reveals that 3.3% of the fathers of undergraduate nursing students completed primary education, 20.0% completed secondary education, 36.7% completed higher secondary education, 35.6% completed undergraduate and 4.4% completed postgraduate.

**Table 4: Education of Mother**

Sl.No	Education of Mother	Frequency	Percentage
1.	Primary	1	1.1
2.	Secondary	9	10.0
3.	Higher Secondary	31	34.4
4.	Undergraduate	36	40.0
5.	Postgraduate	13	14.4
	Total	90	100.0

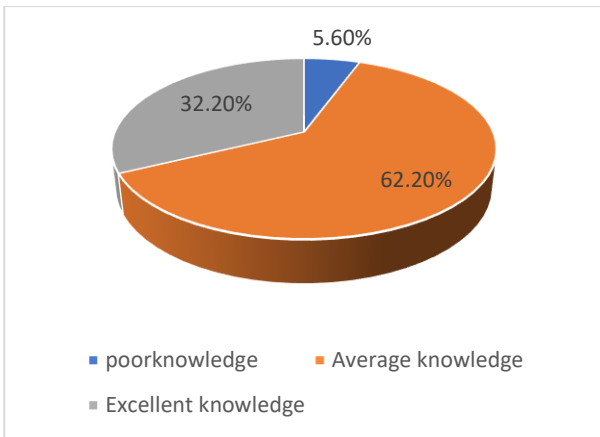
The table reveal that 1.1% of mothers of undergraduate nursing students completed primary education, 10.0% completed secondary education, 34.4% completed higher secondary education, 40.0% completed undergraduate and 14.4% completed postgraduate.

Figure 3 reveals that, among 90 undergraduate nursing students, 5.6% of nursing students have poor knowledge, 62.2% have average knowledge and 32.2% have excellent knowledge.

**Table 5: Migraine and Selected Demographic Variables**

Sl.NO	DemographicVariables	P Value
1.	Age group	0.857
2.	Gender	0.0001
3.	Area of residents	0.391
4.	Type of family	0.237
5.	Education of father	0.213
6.	Education of mother	0.013

**Note:** Level of significance at <0.05



**Figure 3: The Percentage Distribution of Undergraduate Nursing Students According to Their Level of Knowledge Regarding Migraine**

**Discussion**

This study assessed the level of knowledge regarding migraine among undergraduate nursing students and examined the relationship between knowledge levels and selected demographic variables. The results revealed that the majority of participants had an average level of knowledge, while a smaller percentage demonstrated excellent understanding of migraine. This suggests that although students possess some awareness of migraine, significant gaps remain in their comprehension of its causes, triggers, prevention, and management strategies [1,3,5,9]. The lack of in-depth understanding may be attributed to limited educational exposure on migraine within the nursing curriculum, insufficient clinical experience, or a general underestimation of the condition’s seriousness [4,10,11].

The analysis also revealed significant associations between knowledge levels and demographic factors such as gender, mother’s education, and attendance in migraine-related classes, indicating that educational exposure and family background play a vital role in shaping awareness [1,9,10]. However, no significant association was found with variables such as area of residence, father’s education, family type, or family history of migraine, suggesting that limited knowledge is prevalent across different demographic groups [2,6,8]. These findings align with previous research showing that even healthcare students often have inadequate awareness of migraine, despite its high prevalence and impact on quality of life [3-5,11].

Overall, this study highlights the need for structured educational interventions and awareness programs within nursing education to improve students’ understanding of migraine. Strengthening theoretical knowledge and clinical exposure to headache disorders will not only enhance students’ personal health awareness but also equip them to provide better patient education and management in their

professional practice [1,5,10]. Incorporating focused health education on migraine into nursing curricula could therefore play a key role in promoting early recognition, appropriate management, and preventive care, ultimately improving overall neurological health outcomes [9,11].

**Conclusion**

The present study provided valuable insights into the level of knowledge regarding migraine among undergraduate nursing students and its relationship with selected demographic variables. The results revealed that the majority of students had an average level of knowledge, while only a smaller proportion demonstrated excellent understanding, indicating that there is still a substantial gap in awareness and comprehension of migraine, its causes, triggers, prevention, and management. This finding suggests that, despite being part of a healthcare profession, many nursing students may not have received sufficient education or clinical exposure related to neurological disorders such as migraine. The analysis also showed significant associations between knowledge levels and certain demographic factors, including gender, mother’s education, and attendance in migraine-related classes, emphasizing that prior exposure to health education and family background play an important role in shaping awareness. Conversely, no significant association was found with other variables such as area of residence, father’s education, family type, or family history of migraine, implying that limited knowledge is a common issue across various student groups. These findings underscore the need to integrate structured educational programs, seminars, and workshops on migraine within nursing curricula to strengthen both theoretical and practical understanding. Enhancing students’ knowledge in this area will not only enable them to manage their own health better but also prepare them to provide effective patient education, early recognition, and appropriate management in clinical practice. Overall, the study highlights the importance of continuous educational initiatives aimed at empowering future nurses with the knowledge and skills required to address migraine effectively and contribute to improved community health outcomes.

**Recommendation**

- a. A similar study can be conducted among a larger and more diverse group of nursing students to enhance the generalizability of the findings.
- b. Comparative studies can be undertaken among students from different healthcare disciplines to identify variations in knowledge levels and awareness regarding migraine.
- c. Educational intervention programs focusing on migraine awareness and management can be

implemented and evaluated in various nursing colleges to assess their effectiveness.

d. Future research can include longitudinal studies to evaluate changes in knowledge and behavior over time following targeted educational programs.

e. Qualitative studies can be conducted to explore students' attitudes, perceptions, and personal experiences related to migraine and its management.

#### Limitation

a. The study was limited to a sample size of 90 participants, which may restrict the generalization of the findings to a wider population.

b. The study was conducted in a single nursing college, thereby limiting the external validity and applicability of the results to other educational settings.

c. The study focused solely on assessing the level of knowledge regarding migraine and did not evaluate behavioral practices, preventive measures, or management skills related to the condition.

d. Self-reported responses may have been influenced by recall bias or social desirability bias, which could affect the accuracy of the data.

e. Time constraints and limited resources restricted the inclusion of a more comprehensive range of variables and in-depth qualitative analysis.

#### Acknowledgment

I would like to express my deepest gratitude to everyone who supported unconditionally to the success of this research work.

#### Funding

No funding was provided

#### Conflict of Interest

No evidence of the conflict

#### Ethical Consideration

The current study was carried out in our chosen permission from the school authority. Before the study began, the participants gave their consent in order to safeguard their legal right to participate in research. The students took part in the program voluntarily and were free to leave at any moment.

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