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IP Indian Journal of Neurosciences

Journal homepage: https://ijnonline.org/

Original Research Article

Prevalence of Migraine and its contributing factors among university students at the UWI-St. Augustine, Trinidad and Tobago

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Abstract

Background: Migraine, a disabling neurovascular condition, poses a substantial but underrecognized burden on university students, especially in the Caribbean—due to lifestyle, sociocultural, and environmental stressors.
Objective: To assess the prevalence of migraines and explore associations with sleep quality, migraine-triggering food (MTF) intake, and stress levels among university students in Trinidad.
Materials and Methods: A cross-sectional, correlational study was conducted among 283 third-year university students using stratified random sampling. Data were collected via a self-administered online survey including four validated instruments: the ID Migraine™ Test, MTF Intake Checklist, Sleep Quality Scale, and Perceived Stress Scale. Descriptive statistics, Pearson's correlation, and chi-square tests were used for analysis.
Results: Migraine prevalence was 59.4%, with 62.5% of migraine-positive participants reporting severe symptoms. Significant correlations were found between migraine severity and MTF intake ($r = 0.305$, $p < 0.01$), and poor sleep quality ($r = –0.202$, $p < 0.05$). Stress did not show a direct association with migraine severity but correlated with both food intake and sleep quality. Sociodemographic factors (age, ethnicity, family history) were significantly associated with migraine and contributing behaviors.
Conclusions: Migraine burden among students is strongly linked to modifiable lifestyle and environmental factors. Targeted health education and institutional support are recommended, including interventions on dietary habits, sleep hygiene, stress regulation, and climate-related health literacy. These findings reinforce the importance of integrated strategies aligned with SDG 3 (Health and Well-being) and SDG 7 (Clean Energy and Climate Education) to address student health in warming climates. Although the findings are not generalizable due to the study's design and scope, they serve as a critical eye-opener for future researchers to build upon using stronger methodological frameworks.

Keywords: Migraine severity, Sleep quality, Migraine-triggering foods, Perceived stress, University students.

Received: 29-05-2025; **Accepted:** 14-10-2025; **Available Online**: 28-10-2025

1. Introduction

Pain, influenced by genetics, lifestyle, and environmental factors, remains a common yet overlooked health concern. Migraines, a chronic primary headache subtype, affect 15% of the global population, predominantly females aged 15–44.[1] They are the second leading cause of Disability-Adjusted Life Years (DALYs) globally, with increasing burden due to underdiagnosis and undertreatment over the past three decades.[2] Symptoms include vomiting, photophobia, noise intolerance, and emotional challenges like anxiety and depression.[3,4] Migraines with aura (MA) elevate the risk of cardiovascular diseases, hypertension, and ischemic strokes if untreated.[5] Severe and moderate cases are far more prevalent, underscoring their significant health impact.[6]

University students face heightened vulnerability due to academic pressure, part-time jobs, and caregiving roles, resulting in poor migraine management. A 15.3% prevalence of migraines was reported among medical students, with key

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https://doi.org/10.18231/j.ijn.11491.1760502237

triggers being poor sleep, dietary habits, and stress.[7,8] Migraines with aura are linked to hypertension, heart attacks, and ischemic heart disease.[8,15] Environmental factors, such as rising global temperatures, further exacerbate migraines.[9] Common dietary triggers, including processed meats, dairy, chocolate, and caffeine, are frequently reported by over 90% of sufferers,[10,13] with regular intake increasing migraine frequency.[14] Sleep and stress were high triggering factors among Arabian medical students while food was the least triggering factor for migraines.[15] Additionally, poor sleep quality, characterized by irregular patterns and short duration, exacerbates migraine symptoms.[16-20]

In Trinidad, the 2016 Global Burden of Disease analysis highlighted a high migraine prevalence, underscoring the need for targeted interventions. University students, burdened by academic and caregiving responsibilities, often face health neglect, underreporting, and reliance on self-medication, delaying effective care.[21] Recognizing these challenges, this study sought to determine the prevalence of migraines among university students and to examine associations with migraine-triggering food (MTF) intake, sleep quality, and stress levels. In alignment with Primary Health Care (PHC) principles and UN SDG 3, the study emphasizes the importance of education, awareness campaigns, and lifestyle modifications.[22,23]

2. Objectives of the Study

1. To ascertain the socio-demographic variables (SDVs) of the study participants.
2. To determine the prevalence of migraines among the study participants.
3. To assess the levels of associated factors, including the quality of sleep, types of food habits, and stress levels among the study population with migraines.
4. To establish correlations between the identified factors and the prevalence of migraines.
5. To examine the degree of association between the associated factors and the selected socio-demographic variables of the study participants.

2.1. Research hypotheses

1. $H_0.1$: No significant correlation exists between migraine levels and the selected associated factors (MTF intake, sleep quality, and stress levels).
2. $H_0.2$: No significant association exists between socio-demographic variables and migraine levels, MTF intake, sleep quality, and stress levels.

3. Materials and Methods

This cross-sectional, descriptive, correlational study was conducted at the University of the West Indies (UWI), St. Augustine Campus, Trinidad and Tobago, to investigate the prevalence, severity, and contributing factors of migraines among university students. The non-manipulated independent variables included migraine-triggering food (MTF) intake frequency, sleep quality, and stress levels, while the dependent variable was migraine occurrence and severity. Socio-demographic factors such as age, gender, ethnicity, employment status, and family history of migraines were also analyzed. The study objectives, outlined in the Introduction, were operationalized through the methodological procedures described below.

The target population comprised 3,950 students from three faculties: Medical Sciences (2,000), Science and Technology (1,500), and Engineering (450). Using stratified random sampling, Year Three Medical Sciences students were selected via multi-stage randomization. A sample size of 392 was calculated using Cochran's formula ($p = 0.5$, $z = 1.96$, $d = 0.05$), adjusted for a 50% non-response rate. Ultimately, 283 participants completed the study, with 168 reporting migraines included in the final analysis. Although online recruitment likely contributed to the reduced response rate, a post-hoc power analysis confirmed statistical validity, though with limited generalizability to similar populations.

Ethical approval was obtained from the UWI Campus Ethics Committee and Campus Registrar on April 11, 2024. Participants provided informed consent after being briefed on the study's purpose, benefits, and their right to withdraw at any stage. Inclusion criteria involved full-time male and female students, while exclusion criteria ruled out individuals with neurological disorders, recent head or neck injuries, or those unable to provide informed consent.

As a non-interventional, survey-based study, no clinical work-up, imaging, or treatment procedures were performed. Data collection occurred between April 15 and June 15, 2024, via a self-administered web-based questionnaire (Google Forms) disseminated through WhatsApp group chats and Linktree links. To improve data quality, the survey was set to accept only one response per account, and incomplete responses were excluded during data cleaning.

The study employed six validated tools to ensure the reliability and validity of the collected data. Tool 1 included screening questions to exclude participants with systemic illnesses, pre-existing neurological conditions, or head trauma. Tool 2, a socio-demographic data sheet, gathered demographic details such as gender, age, ethnicity, employment status, and family history of migraines. The ID Migraine™ Test (Tool 3), consisting of 12 yes/no questions, assessed migraine prevalence with a scoring range of 0–12 points, categorizing results into low, moderate, or high prevalence. Tool 4, based on the Gillman/Willet Prime Screen Questionnaire, evaluated the frequency of migraine-triggering food intake through 4 multiple-choice questions, with scores ranging from 4–20. Intake was categorized as low (4–8), moderate (9–14), or high (15–20), with higher scores reflecting more frequent exposure to known dietary triggers. Tool 5, the Sleep Quality Scale (SQS) by Chol Shin, analyzed sleep patterns and quality using 28 Likert-scale questions,

with scores ranging from 0–84 points indicating varying levels of sleep disturbance and potential disorders. Tool 6, the Perceived Stress Scale (PSS-10) by Cohen et al., measured stress levels through 10 single-rated questions, with scores ranging from 0–40 points, categorizing stress impact as low, moderate, high, or very high.

Data analysis was performed using IBM SPSS© Version 29, employing descriptive statistics (frequency, percentage, mean, standard deviation) to summarize sample characteristics and inferential statistics (Spearman's Rank Correlation Coefficient, Chi-Square Test) to identify relationships among variables and determine statistical significance. Internal consistency of multi-item scales (SQS, PSS-10, and MTF checklist) was assessed using Cronbach's alpha.

4. Results

Table 1 shows that among the 283 respondents, the majority were female (61.1%), primarily aged 20–25 years (44.9%), and of mixed ethnicity (44.9%). Additionally, 54.1% of participants reported a family history of migraines. In terms of employment status, 55.8% of students were employed part-time, while 44.2% were unemployed.

Table 1: Frequency and percentage distribution of socio-demographic variables (SDVs) among the total accessed sample. (**N=283)**

Sociodemographic Variables	**Frequency (*f*)**	**Percentage (%)**
Gender		
- Female	173	61.1
- Male	99	35.0
- Non-binary	11	3.9
Age Group (years)		
- 20-25	127	44.9
- 26-30	105	37.1
- 31-35	28	9.9
- 36 and above	23	8.1
Ethnicity		
Mixed	127	44.9
African	70	24.7
East Indian	69	24.4
Other	17	6
Family History of Migraines		
- Yes	153	54.1
- No	69	24.4
- Not Sure	61	21.6
Employment Status		
- Students; Employed part-time	158	55.8
- Students; Unemployed	125	44.2

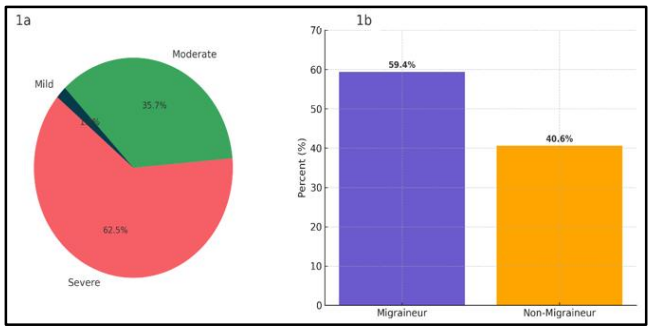

Figure 1: Migraine prevalence and severity; **a:** Severity distribution among migraineurs; **b:** Prevalence migraine study populatior

The overall prevalence of migraines among participants, as determined by the ID Migraine™ Test, was 59.4% (n = 168) (**Figure 1**a). Among those identified as migraineurs, 62.5% experienced severe migraines, 35.7% reported moderate, and only 1.8% had mild migraines (**Figure 1**b).

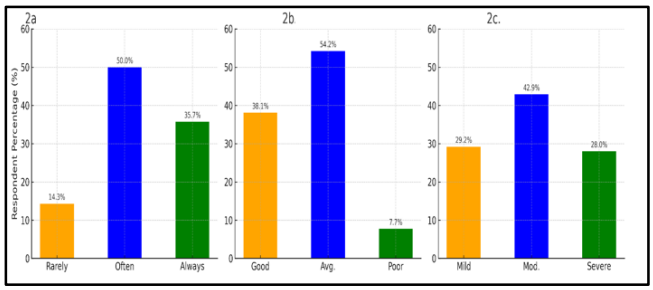

Figure 2: Levels of contributing factor associate with migraine among participants; **a:** Frequency of migraine triggering foods; **b:** Quality sleep; c: Levels of stress

Among the contributing factors assessed, notable variations were observed in dietary triggers, sleep quality, and stress levels among participants (**Figure 2**a–c). In terms of migraine-triggering food (MTF) intake (**Figure 2**a), 50.0% of participants reported consuming such foods often, 35.7% reported consuming them always consuming them, and 14.3% consumed them rarely. Sleep quality (**Figure 2**b) was reported as average by the majority (54.2%), while 38.1% indicated good sleep, and only 7.7% experienced poor sleep. Regarding stress levels (**Figure 2**c), 42.9% of participants reported moderate stress, 29.2% reported mild stress, and 28.0% experienced severe stress. These findings highlight the prevalence of modifiable lifestyle-related factors among individuals experiencing migraines and may indicate potential targets for preventive interventions**.**

Table 2: Spearman's rank correlation matrix among study variables **(N = 283)**

Study Variables	1. Migraine Levels	2. MTF Intake	3. Sleep Quality	4. Stress Levels
1. Migraine Levels	1.00	0.305**	–0.202**	0.136
2. MTF Intake	0.305**	1.00	–0.313**	0.445**
3. Sleep Quality	–0.202**	–0.313**	1.00	–0.355**
4. Stress Levels	0.136	0.445**	–0.355**	1.00

Note: Values represent Spearman's rho (ρ) correlation coefficients.
****** Correlation is significant at the 0.01 level (2-tailed).

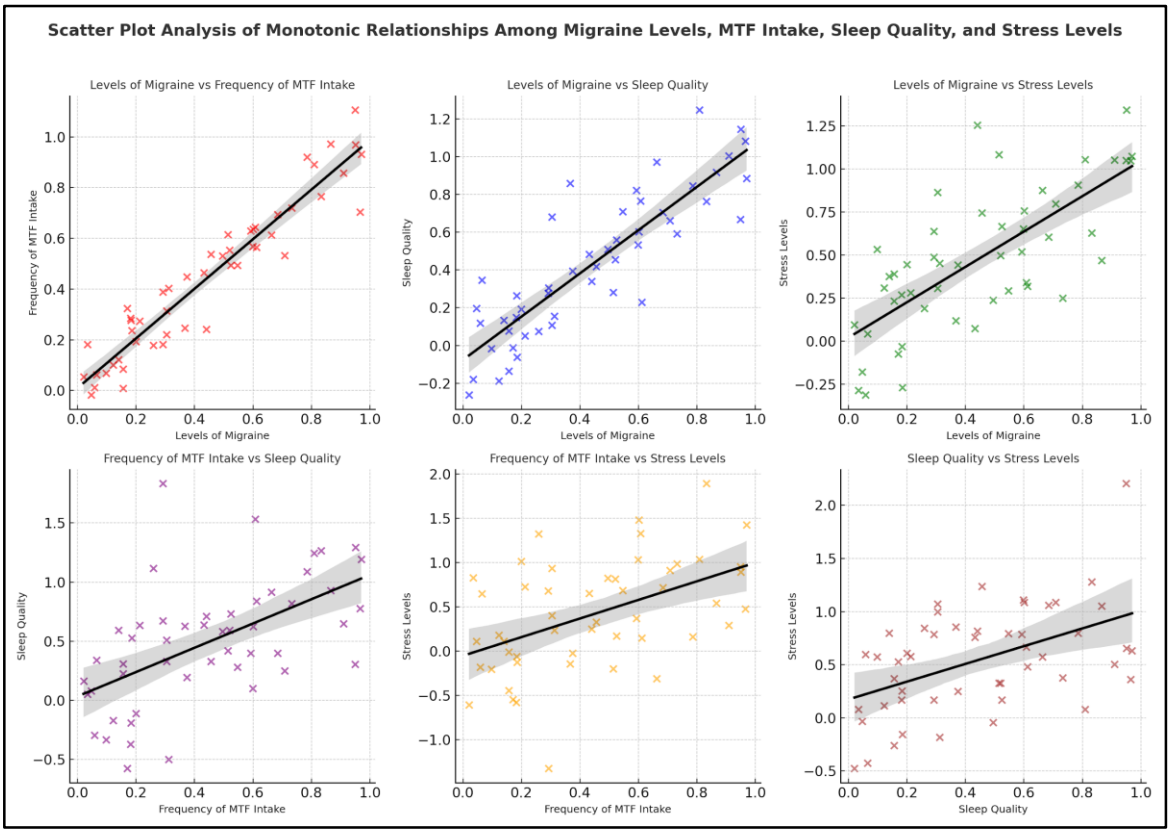

Figure 3: Scatter plot analysis depicting monotonic relationships among migraine severity, MTF intake, sleep quality, and stress levels using Spearman's correlation. The six scatter plots illustrate the direction and strength of associations observed in Table 2.

Table 3: Associations between sociodemographic variables and study outcomes (N = 168)

Sociodemographic Variable.	Migraine Severity χ^2 (df), p	MTF Intake χ^2 (df), p	Sleep Quality χ^2 (df), p	Stress Levels χ^2 (df), p
Age Group	$\chi^2 = 8.865$ (3), p = 0.031**	$\chi^2 = 13.226$ (3), p = 0.040**	---	$\chi^2 = 12.707$ (3), p = 0.048**
Ethnicity	$\chi^2 = 17.333$ (3), p < 0.001**	$\chi^2 = 16.414$ (3), p = 0.012**	---	$\chi^2 = 14.883$ (3), p = 0.021**
Family History of Migraine	$\chi^2 = 21.024$ (2), p < 0.001**	$\chi^2 = 10.824$ (2), p = 0.021**	$\chi^2 = 12.041$ (2), p = 0.017**	$\chi^2 = 18.447$ (2), p < 0.001***

***Note:** Pearson's Chi-square test applied; significance level set at p < 0.05. **p < 0.05; ***p < 0.001. A dash (---) indicates no significant association.

Table 2 displays Spearman's rank correlation coefficients among migraine severity, MTF intake, sleep quality, and stress levels. A moderate positive correlation was found between MTF intake and migraine severity (ρ = 0.305, $p < 0.001$), while a weak negative correlation was observed between sleep quality and migraine severity (ρ = –0.202, $p = 0.009$). MTF intake also showed strong associations with stress levels (ρ = 0.445, $p < 0.001$), and sleep quality was negatively correlated with stress (ρ = –0.355, $p < 0.001$). The correlation between migraine severity and stress levels was not statistically significant (ρ = 0.136, $p = 0.079$).

4.1. Hypothesis testing

The stated directional hypothesis that migraine severity is positively correlated with MTF intake and stress levels and negatively correlated with sleep quality is partially accepted. Statistical analysis revealed a significant positive correlation between migraine severity and MTF intake ($\rho = 0.305$, $p < 0.001$), and a significant negative correlation with sleep quality ($\rho = –0.202$, $p = 0.009$), supporting these parts of the hypothesis. However, the correlation between migraine severity and stress levels was not statistically significant ($\rho = 0.136$, $p = 0.079$). Therefore, the null hypothesis is retained for this relationship.

Table 3 presents the associations between key sociodemographic characteristics (age group, ethnicity, and family history of migraines) and study outcomes (migraine severity, MTF intake, sleep quality, and stress levels) among participants diagnosed with migraine (N = 168), using Pearson's Chi-square test. Migraine severity was significantly associated with age group ($\chi^2 = 8.865$, $p = 0.031$), with the 26–30 age group reporting the highest proportion of severe migraines. Ethnicity also showed a significant relationship ($\chi^2 = 17.333$, $p < 0.001$), with severe migraines more common among participants of Mixed ethnicity and moderate migraines more frequent among East Indian participants. Family history of migraines demonstrated a strong association ($\chi^2 = 21.024$, $p < 0.001$), with those reporting a positive history more likely to experience severe migraines. MTF intake was significantly related to age group ($\chi^2 = 13.226$, $p = 0.040$), ethnicity ($\chi^2 = 16.414$, $p = 0.012$), and family history of migraines ($\chi^2 = 10.824$, $p = 0.021$). Participants in the 26–30 age group and those with a positive family history were more likely to report "Always" or "Often" consuming triggering foods.

Sleep quality was significantly associated with family history of migraines ($\chi^2 = 12.041$, $p = 0.017$). Those with a positive family history predominantly reported "Average" sleep quality, while participants without a family history were more likely to report "Good" sleep. Stress levels were significantly associated with age group ($\chi^2 = 12.707$, $p = 0.048$), ethnicity ($\chi^2 = 14.883$, $p = 0.021$), and family history of migraines ($\chi^2 = 18.447$, $p < 0.001$). The 26–30 age group and participants of "Other" ethnicity reported higher proportions of severe stress, while individuals with a positive family history were more likely to report moderate or severe stress compared to those without a family history. Overall, the analysis highlights that age, ethnicity, and family history are important sociodemographic determinants influencing migraine severity, MTF intake, sleep quality, and stress levels. No other significant associations were observed between sociodemographic variables and the study outcomes beyond those displayed in **Table 3**.

Hypothesis Testing: The stated directional hypothesis—that selected sociodemographic variables (age group, ethnicity, and family history of migraines) are significantly associated with migraine severity, MTF intake, sleep quality, and stress levels—was supported by the data. Each outcome variable demonstrated at least one statistically significant association with the sociodemographic factors examined. Therefore, the null hypothesis is rejected, and the directional hypothesis is accepted, based on the results of the Chi-square analyses presented in Tables 3a through 3d.

5. Discussion

The discussion is organized around the study objectives, moving from sociodemographic characteristics and prevalence to associated factors, correlations, and their associations with sociodemographic variables.

This study revealed a high prevalence of migraines (59.4%) among university students in Trinidad. This rate exceeds the global average of approximately 15%[1] and is notably higher than the 15.3% reported among medical students in South Asia.[7] While some global studies have focused on adult or clinical populations, our study highlights the burden among Caribbean university students—suggesting an underrecognized public health issue within this demographic. The elevated prevalence may reflect a combination of environmental and lifestyle factors, including prolonged heat exposure in Trinidad's equatorial climate,[9] as well as cultural patterns of self-management and delayed help-seeking.

A majority of migraineurs (62.5%) reported severe symptoms, aligning with global literature that emphasizes the disabling nature of moderate to severe migraines.[6,24] In contrast to studies where mild cases were more common among younger populations,[7,16] the predominance of severe migraines in this sample may reflect cumulative stress from multiple life roles. Many students in this setting juggle part-time work, academic responsibilities, and caregiving duties, with some also serving as primary income earners within single-parent households. These overlapping roles, especially when paired with limited rest and recovery, likely intensify migraine severity.

Dietary patterns emerged as a strong contributor to migraine severity, with half of participants reporting frequent intake of migraine-triggering foods. This finding aligns with Rockett et al.[14] and Bahrampour et al.,[13] who identified a high prevalence of dietary triggers such as processed meats, fried foods, and caffeine. However, it contrasts with Alzahrani et al.,[15] who found food to be the least influential factor among medical students in Saudi Arabia. The difference may stem from regional food practices; in Trinidad, high-sodium and fried foods like "doubles," potato fries, and fast-food options such as KFC are staple, affordable, and easily accessible, particularly for students managing time and budget constraints. Additionally, the sociocultural norm of consuming carbonated beverages and beer—often used to relax or celebrate—further contributes to migraine risk through sugar, caffeine, and alcohol-related triggers.

Sleep quality also showed a strong association with migraine severity, with over half of participants reporting average or poor sleep. This supports findings by Duan et al.[17] and Saçmacı et al.,[18] who noted that irregular sleep patterns and reduced sleep quality significantly increase migraine burden. Compared to studies in more structured university environments,[12,19] the sleep disruption in our sample may be more severe due to the widespread practice of working night shifts or weekends while attending morning classes, leaving minimal opportunity for restorative sleep. The absence of intergenerational household structures means that many students adopt independent living early in adulthood, often without consistent elder support or routine life guidance, making them more susceptible to poor sleep routines and unregulated stress responses.

Stress levels, although present in 42.9% of participants at a moderate level, did not show a statistically significant direct correlation with migraine severity. This finding diverges from Stubberud et al.,[25] who documented stress as a primary trigger. However, our results align with studies by Rockett et al.[14] and Duan et al.,[17] which suggest that stress may function indirectly—through poor dietary choices and disturbed sleep (as confirmed by our correlations: $r = 0.445$ and $r = 0.355$, respectively). This indirect role is particularly relevant in a context where students often internalize emotional distress, reflecting strong cultural norms around emotional self-containment, privacy, and resilience. Emotional suppression, combined with the pressure of intimate relationships initiated at a young age, may contribute silently to heightened physiological stress that manifests through sleep disruption and poor self-care.

Sociodemographic factors such as age, ethnicity, and family history of migraines were significantly associated with migraine severity and contributing behaviors. Students aged 26–30 reported more severe symptoms, likely due to added responsibilities during this life stage, such as employment, financial independence, or parenting. Participants from Mixed and East Indian ethnic groups reported higher severity, consistent with Stewart et al.,[26] who discussed racial disparities in migraine risk. Family history, as noted by Saçmacı et al.,[18] also correlated with increased migraine severity and poor sleep quality, reaffirming the role of genetic predisposition.

6. Conclusion

This study identified a high prevalence of migraines among university students in Trinidad, with significant associations to poor sleep quality and frequent intake of migraine-triggering foods, while stress showed only an indirect influence through sleep and dietary patterns. The equatorial climate, likely intensified by global warming, may further exacerbate migraine symptoms, underscoring the emerging health burden of climate change. Although limited by its cross-sectional design, single-site sample, and reliance on self-reported data, the study highlights the need for targeted health education focusing on dietary triggers, sleep hygiene, stress regulation, and climate-adaptive behaviors, supported by institutional measures such as routine migraine screenings and accessible counseling services. Future longitudinal studies are recommended to explore behavioral and environmental interactions over time, particularly the health impacts of rising temperatures, and the findings reinforce the importance of student-focused interventions aligned with Sustainable Development Goal 3 (Good Health and Well-being) and Goal 13 (Climate Action).

7. Ethical Approval

CREC-SE.2495/01/2024.

8. Source of Funding

None.

9. Conflict of Interest

None.

References

1. Amiri P, Kazeminasab S, Nejadghaderi SA, Mohammadinasab R, Pourfathi H, Araj-Khodaei M, et al. Migraine: A review on its history, global epidemiology, risk factors, and comorbidities. *Front Neurol*. 2022;12:800605. https://doi.org/10.3389/fneur.2021.800605
2. Cohen F, Brooks C, Sun D, Buse DC, Reed ML, Fanning KM, et al. Prevalence and burden of migraine in the United States: A systematic review. *Headache*. 2024;64(5):516–32. https://doi.org/10.1111/head.14709
3. Bigal ME, Kurth T, Hu H, Santanello N, Lipton RB. Migraine and cardiovascular risk: possible mechanisms of interaction. *Neurology*. 2009;72(21):1864–71. https://doi.org/10.1212/WNL.0b013e3181a71220
4. Smitherman TA. Diagnosis and clinical evaluation. In: Clinician's Manual on Migraine. Cham: Springer; 2016:13–20. https://doi.org/10.1007/978-3-319-02777-7_2
5. Ruschel MP, De Jesus O. Migraine headache. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023 [cited 2023 Nov 1]. Available from: https://www.ncbi.nlm.nih.gov/books/NBK538213/
6. Lipton RB, Bigal ME, Diamond M, Freitag F, Reed ML, Stewart WF. Migraine prevalence, disease burden, and the need for preventive therapy. *Neurology*. 2007;68(5):343–9. https://doi.org/10.1212/01.wnl.0000252808.97649.21.
7. Shrestha O, Karki S, Thapa N, Shrestha KL, Shah A, Dhakal P, et al. Prevalence of migraine and tension-type headache among undergraduate medical students of Kathmandu Valley: A cross-sectional study. *Health Sci Rep*. 2022;5(5):e747. https://doi.org/10.1002/hsr2.747
8. Marcus DA, Ready DM. Migraine is more than "Just a Headache." In: Discussing Migraine with Your Patients. New York: Springer; 2016. p.33–47. https://doi.org/10.1007/978-1-4939-6484-0_4
9. Scheidt J, Koppe C, Rill S, et al. Influence of temperature changes on migraine occurrence in Germany. *Int J Biometeorol*. 2013;57(4):649–54. https://doi.org/10.1007/s00484-012-0582-2
10. Hindiyeh NA, Zhang N, Reinel D, Wogenstein F, Drescher J. The role of diet and nutrition in migraine triggers and treatment: A systematic literature review. *Headache*. 2020;60(7):1300–16. https://doi.org/10.1111/head.13836
11. Hoffmann J, Recober A. Migraine and triggers: post hoc ergo propter hoc? *Curr Pain Headache Rep*. 2013;17(10):370. https://doi.org/10.1007/s11916-013-0370-7

12. Tu YH, Chang CM, Yang CC, Tsai IJ, Chou YC, Yang CP. Dietary patterns and migraine: Insights and impact. *Nutrients*. 2025;17(4):669. https://doi.org/10.3390/nu17040669
13. Bahrampour N, Mirzababaei A, Yarizadeh H, Mujtaba Barekzai A, Khorsha F, Clark CCT, et al. The relationship between dietary nutrient patterns and intensity and duration of migraine headaches. *Br J Nutr*. 2022:1–8. https://doi.org/10.1017/S0007114522000046
14. Rockett FC, et al. Frequency of migraine-triggering foods in dietary habits. *Headache*. 2022;62:405.
15. Alzahrani S, Alenezi S, Alnasser S, Alotaibi A, Alharbi M, Aldehaiman M, et al. Knowledge and perceptions of migraine management and trigger factors among medical students in Riyadh, Saudi Arabia: a cross-sectional study. *Cureus*. 2024;16(12):e75666. https://doi.org/10.7759/cureus.75666
16. Rafi A, Islam S, Hasan MT. Prevalence and impact of migraine among university students in Bangladesh: findings from a cross-sectional survey. *BMC Neurol*. 2022;22:68. https://doi.org/10.1186/s12883-022-02594-5
17. Duan S, Ren Z, Xia H, Wang Z, Zheng T, Liu Z . Association between sleep quality, migraine and migraine burden. *Front Neurol*. 2022;13. https://doi.org/10.3389/fneur.2022.955298
18. Saçmacı H, Tanik N, İnan LE. Current perspectives on the impact of chronic migraine on sleep quality: A literature review. *Nat Sci Sleep*. 2022;14:1783–800. https://doi.org/10.2147/NSS.S335949
19. Tiseo C, Vacca A, Felbush A, Filimonova T, Gai A, Glazyrina T, et al. Migraine and sleep disorders: a systematic review. *J Headache Pain*. 2020;21(1):126. https://doi.org/10.1186/s10194-020-01192-5.
20. Vgontzas A, Li W, Mostofsky E, Rueschman M, Mittleman MA, Bertisch SM. Associations between migraine attacks and nightly sleep characteristics among adults with episodic migraine: a prospective cohort study. *Sleep*. 2020;43(7):zsaa001. https://doi.org/10.1093/sleep/zsaa001
21. GBD 2016 Headache Collaborators. Global, regional, and national burden of migraine and tension-type headache, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016. *Lancet Neurol*. 2021;17(11):954–76. https://doi.org/10.1016/S1474-4422(18)30322-3
22. World Health Organization. Declaration of Alma-Ata [Internet]. Geneva: WHO; 1978 [cited 2025 Mar 31]. Available from: https://www.who.int/teams/social-determinants-of-health/declaration-of-alma-ata
23. World Health Organization. A vision for primary health care in the 21st century: towards universal health coverage and the Sustainable Development Goals [Internet]. Geneva: WHO; 2018 [cited 2025 Mar 31]. Available from: https://www.who.int/publications/i/item/WHO-HIS-SDS-2018.61
24. Lipton RB, Stewart WF, Goadsby PJ. Headache-related disability in the management of migraine. *Neurology*. 2001;56(6 Suppl 1):S1–3. https://doi.org/10.1212/wnl.56.suppl_1.s1
25. Stubberud A, Buse D, Kristoffersen E, Linde M, Tronvik E. Is there a causal relationship between stress and migraine? Current evidence and implications for management. *J Headache Pain*. 2021;22(1):155. https://doi.org/10.1186/s10194-021-01369-6
26. Stewart WF, Lipton RB, Liberman J. Variation in migraine prevalence by race. *Neurology*. 1996;47(1):52–9. https://doi.org/10.1212/wnl.47.1.52

Cite this article: Victor VM, Best S, Ramnath K, Esat F, Lochan N, Ramsawak S, Rennie R, Vijayakumar L, Daniel E, Sahu P. Prevalence of Migraine and its contributing factors among university students at the UWI-St. Augustine, Trinidad and Tobago. *IP Indian J Neurosci*. 2025;11(3):165-171.