International Journal of Reproduction, Contraception, Obstetrics and Gynecology
*Swapna KG et al. Int J Reprod Contracept Obstet Gynecol. 2025 Dec;14(12):4263-4271*
www.ijrcog.org
pISSN 2320-1770 | eISSN 2320-1789

DOI: https://dx.doi.org/10.18203/2320-1770.ijrcog20253894

**Original Research Article**

# Understanding the burden of menstrual health issues in a health university setting: a study from Kerala

**K. G. Swapna[1]*, K. Rajamohanan[2], P. Namitha[2], V. R. Jisharaj[2]**

[1]School of Public Health, Kerala University of Health Sciences, Thiruvananthapuram Government College of Nursing, Thiruvananthapuram, India
[2]School of Public Health, Kerala University of Health Sciences, Thiruvananthapuram, India

**Received:** 11 October 2025
**Revised:** 09 November 2025
**Accepted:** 10 November 2025

***Correspondence:**
Dr. K. G. Swapna,
E-mail: swapnakgopal@gmail.com



## ABSTRACT

**Background:** Menstruation affects women, often leading to several health issues that impact academic and work performance. Menstrual health receives limited attention in institutional settings, despite its prevalence. Objective: To estimate the burden of menstrual health problems.
**Methods:** A cross-sectional online survey was conducted among female staff, students and faculty members of Kerala University of Health Sciences (KUHS). A structured, self-administered online-questionnaire assessed the burden of menstrual health problems. Quantitative data were expressed as mean (SD) or median (IQR), qualitative data as frequency and percentage. The outcome variables were dichotomised as problems present or absent.
**Results:** The prevalence of menstrual health problems was 96.4% (95% CI 95.6 to 96.8%). More than half of them reported that menstrual bleeding impacted their daily activities and 39.7% were prevented from going to their institution. However, only 15.2% reported that they would take menstrual leave if it were implemented as a policy. About 31.6% of participants reported a change in menstrual pattern after COVID-19 infection. The overall prevalence of premenstrual symptoms (PMS) was 77.2%, with mild PMS 37.3%, moderate PMS 30% and severe PMS 9.9%.
**Conclusions:** Menstrual health problems are common and significantly affect women's academic and professional life. Gender-sensitive institutional measures are essential to support women's health and productivity.

**Keywords:** Cross sectional studies, Dysmenorrhea, Menstrual abnormalities, Premenstrual syndrome, Prevalence, Students

## INTRODUCTION

Menstruation as a process involves physical, psychological and social responses and not every woman perceives it as the same.[1] It is associated with physical, emotional problems and other health problems.[2,3] Physical problems include spasmodic pain of the abdomen, thighs, back pain, nausea, vomiting, etc.[4] In addition to physical problems, there will be emotional problems such as irritation, anxiety and mood changes.[5] They should be provided with emotional and physical support to cope with the problems.[6] Menstrual difficulties should receive more attention because better health for Indian women leads to greater advancement in the fields of education, employment, income and development.[3] Women's main health issues are dysmenorrhea, heavy bleeding and irregular menstruation. Disruptions in social interactions and negative aspects of life, such as sickness absenteeism, loss of physical activity, academic discontent, interpersonal connections, confidence and focus, are seen as a result of dysmenorrhea. There are health issues that affect women in the workplace.[7] Though menstruation is not an illness, it can affect workplace efficiency due to health issues. It is recommended to tackle such issues with strategic approaches from organizations, institutions and departments.[8] Studies have reported that somatic

symptoms with menstruation were associated with the intention to leave work among female workers and intervention for somatic symptoms with menstruation might support them to continue work.[9] It is reported that absenteeism due to premenstrual dysphoric disorder, a cyclic disorder of monthly occurrence, is common among female students if sufferers do not seek medical treatment.[10] A study has reported that those with heavy or painful periods were more likely to feel that their menstrual problems had a substantial impact on their academic and social life; however, even among those with (light) periods, one in every four females felt that their life was considerably affected.[11]

Recently, the Kerala government announced menstrual leave for the girl students.[12] This provided female students with an additional benefit of 2% condonation every semester making the mandatory attendance 73% for examination appearance, subject to the decision of the academic council.[13] Proponents of this policy argue that it is a step toward gender-sensitive workplaces and educational institutions, promoting inclusivity and accommodating women's health needs.[14] While opponents of this policy raises concerns that this will reinforce gender stereotypes and potentially lead to discrimination in hiring practices or career advancement opportunities. At the national level, there have been proposals for menstrual leave policies, but the government has not yet considered making provisions for mandatory paid menstrual leave in all workplaces.[15] We believe that this is the first paper on the menstrual health issues of the health science students and faculty from the state which covers a large sample. In this context, this study has been undertaken to assess the magnitude of menstrual health problems among the female staff, students and faculty in Kerala University of Health Sciences (KUHS).

## METHODS

This study followed a cross-sectional design. The study population was staff, students and faculty in KUHS and its affiliated colleges. The University is mandated to affiliate all educational institutions imparting professional education in health care. There were 340 colleges affiliated at the time of the study. The colleges fall under all systems of medicine such as Modern Medicine, Ayurveda, Homeopathy, Siddha, Unani, Yoga, Naturopathy, Nursing, Pharmaceutical Science and Paramedical courses and conducting undergraduate, post-graduate MPhil and PhD courses in various disciplines. We included all women who attained menarche and having age>18 years. Women who attained menopause, having amenorrhea for last one or more months, who cannot read and write English, transgenders and not willing were excluded. The study was conducted at educational institutions under KUHS. The sample size has been calculated using the formula n=4pq/d2 based on the reported prevalence of 18% menstrual flow disturbances among medical students in Karimnagar, India for a relative precision of 8%.[16] The final sample size adjusted for a 20% non-response rate was 3750. The study used stratified sampling strategy with probability to proportion to the three strata of staff, students and faculty. The participants were approached through network sampling.

The outcome variables studied were menstrual health problems including hypomenorrhea (menstrual flow<2 days), prolonged menstrual flow (menstrual flow>7 days), oligomenorrhoea (irregular and inconsistent menstrual blood flow and the length of menstrual cycle>35 days), menorrhagia (deviation from the normal menstrual cycle, the average cycle lasts 29 days with a range of 23-39 days with bleeding episodes lasting 2-7 days, or menstrual flow>7 days/ excessive blood flow/ blood flow with clots), heavy menstrual bleeding and dysmenorrhoea (painful abdominal cramps associated with menstruation and pain can extent to inner thighs and back). Heavy menstrual bleeding was assessed using the HMB-BAS (heavy menstrual bleeding visual analogue scale. It consists of two scales, HMB-VASInt (intensity of bleeding) and HMB VaSImp (impairment of daily activities). Both scales are rated on a 100-point horizontal line with scores for HMB-VASInt “no bleeding at all (0)” and “the heaviest possible menstrual bleeding I have had (100)” and for HMB-VASImp “does not interfere in my daily life/activities at all” (0) and “completely interferes in my daily life/activities” (100). The total score was calculated as 10.9 VASInt score+2.5 VASImp score with a cut-off score of 700.[17] Definitions of the menstrual health problems were based on the standard definitions.[18-20] Along with that premenstrual symptom severity also was assessed using a validated scale with score ranging from 0 to 57. The severity was classified as no PMS (<14), mild PMS (15-28), moderate PMS (29-43) and sever PMS (>43).

The data was collected using a structured, self-administered online-questionnaire which was validated by experts and pretested among a small group of participants for clarity, completeness and technical functionality. It was developed in Google Forms and the survey link was distributed electronically among eligible participants via institutional email groups and messaging platforms. The questionnaire consisted of sociodemographic information, menstrual health problems and premenstrual symptom severity. The study had started after getting administrative sanction from the university and ethics committee clearance from the ethics committee. Informed consent was obtained online and participant information sheet was shared and confidentiality was ensured. It took about 30 minutes to complete the survey. The period of data collection extended from 23 May 2024 to 07 June 2024. The data were entered in excel, cleaned and edited. Analysis was done using SPSS Version 27. Quantitative data were expressed as mean (SD) or median (IQR) depending on the distribution. Normality was assessed using Shapiro-Wilk test. Qualitative data were presented as frequency and percentage. The outcome variables were dichotomised as problems present or absent.

## RESULTS

A total of 3820 participants responded to the online survey and 3772 responses were complete. Characteristics of study participants are described as sociodemographic characters, anthropometric characteristics, personal characteristics, family characteristics and other contextual factors. They are presented in Table 1 and Figure 1. Types of menstrual materials used by the study participants are represented in Figure 2.

### *Prevalence and types of menstrual health problems*

Prevalence of menstrual health problems are shown in the Table 2. It has been reported that majority of the study participants (96.4%, 95% confidence interval 95.6% to 96.8%) had menstrual health problems. Only 3.6% (95% CI 3.0 % to 4.25%) were devoid of them. Types of menstrual health problems in the participants are presented in the following Figure 3.

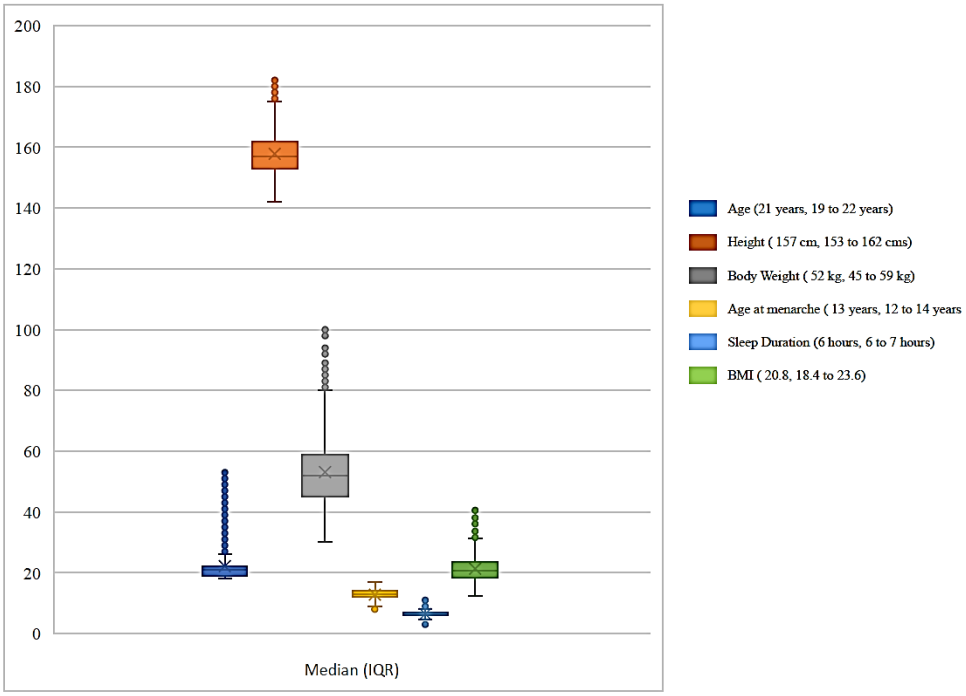


**Figure 1: Mean (IQR) of age, height, body weight, age at menarche, sleep duration and BMI of the study participants.**

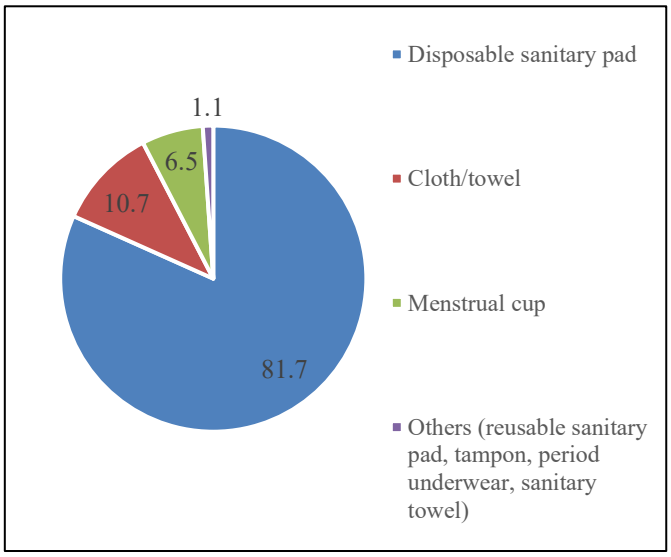


**Figure 2: Distribution of participants based on the type of menstrual materials used.**

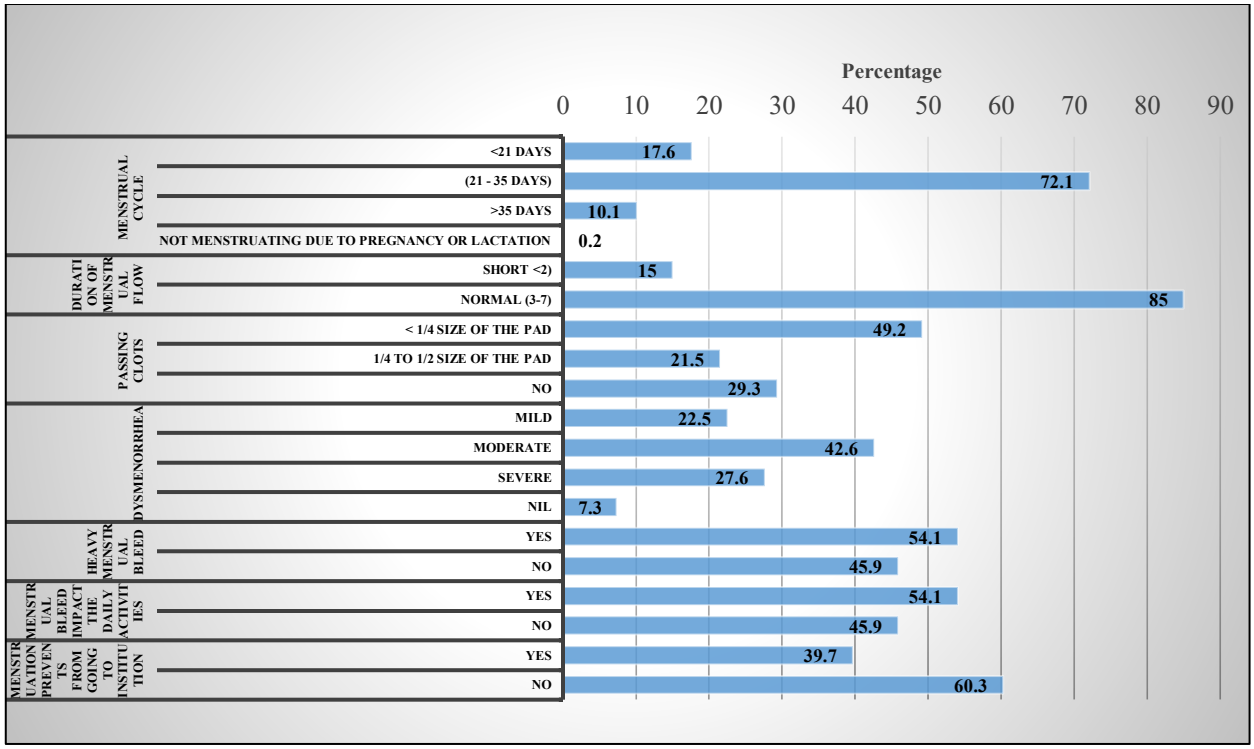


**Figure 3: Prevalence of menstrual health problems among the study participants.**

There was a question "Do you take menstrual leave if implemented as a policy?" The response is given in the following Figure 4.

***Menstrual problems following COVID-19 infection***

Among those who had COVID-19 infections, post-COVID-19 menstrual problems were reported by 36.1%. Changes in flow duration included prolonged flow (4.5%), decreased flow (13.6%). Increase in the number of pads used were 7.7%, with most participants (89.4%) reporting no change and 2.9% reported decrease in number of pads. A few (3.5%) reported passing of clots. While 13.5% and 2.5% reported increased and decreased severity of their dysmenorrhea respectively.

***Prevalence and severity of premenstrual symptoms***

Prevalence and severity of premenstrual symptoms are shown on the following Table 5.

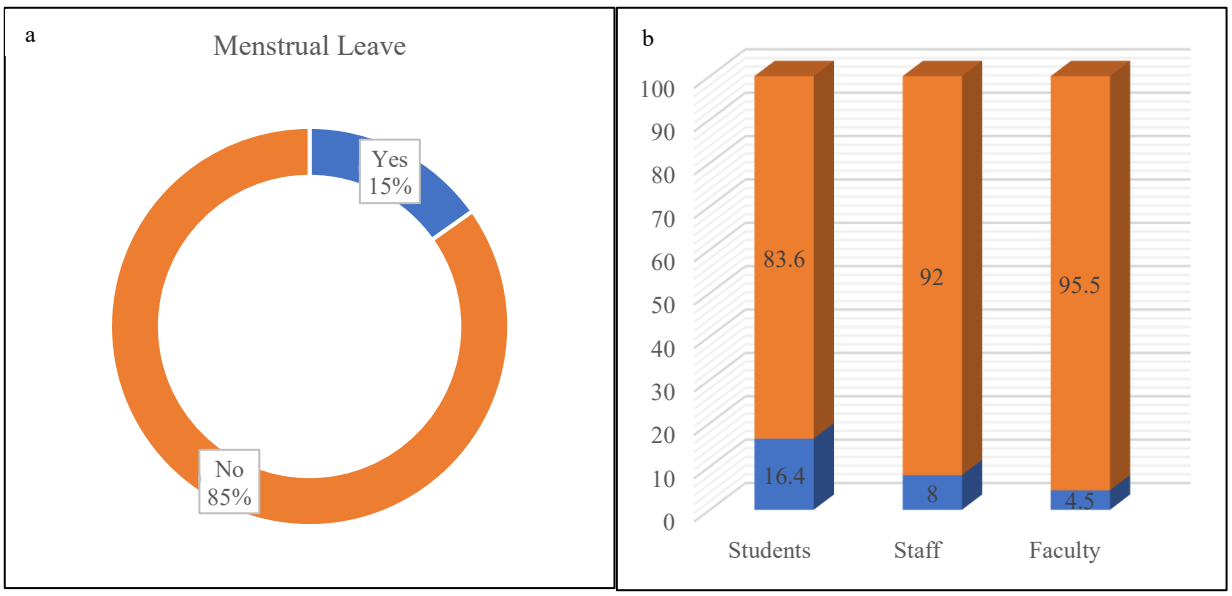


**Figure 4 (a and b): Distribution of study participants based on willingness to take menstrual leave.**

**Table 1: Characteristics of the study participants (n=3772).**

| Variable | | | F | % |
|---|---|---|---|---|
| **Socio-demographic characteristics** | Age (in years) | 18-25 | 3325 | 88.2 |
| | | 26-40 | 379 | 10 |
| | | 41-55 | 68 | 1.8 |
| | Educational status | UG | 3231 | 85.7 |
| | | PG | 512 | 13.6 |
| | | MPhil | 3 | 0.1 |
| | | PhD | 26 | 0.7 |
| | Course | Medical | 231 | 6.1 |
| | | Pharmacy | 119 | 3.2 |
| | | Nursing | 2277 | 60.4 |
| | | Allied | 728 | 19.3 |
| | | Ayurveda | 128 | 3.4 |
| | | Dental | 36 | 1.0 |
| | | Homeo | 231 | 6.1 |
| | | NA | 22 | 0.6 |
| | Residence | Rural | 2080 | 55.1 |
| | | Urban | 1629 | 43.2 |
| | | Coastal | 56 | 1.5 |
| | | Tribal | 7 | 0.2 |
| | Education of Head of family | Professional degree | 493 | 13.1 |
| | | Graduate or post graduate | 763 | 20.2 |
| | | High school | 1152 | 30.5 |
| | | Middle school | 105 | 2.8 |
| | | Primary school | 25 | 0.7 |
| | | Illiterate | 1234 | 32.7 |
| | Occupation of the head | Professional | 579 | 15.3 |
| | | Semi professional | 564 | 15.0 |
| | | Clerical | 1271 | 33.7 |
| | | Skilled worker | 942 | 25.0 |
| | | Semi-skilled worker | 416 | 11.0 |
| | Marital Status | Unmarried | 3248 | 86.1 |
| | | Married | 514 | 13.6 |
| | | Separated | 10 | 0.3 |
| | Parity | Not applicable | 3408 | 90.3 |
| | | One | 170 | 4.5 |
| | | More than one | 194 | 5.1 |
| **Personal characteristics** | Habit of Smoking | Yes | 6 | 0.2 |
| | | No | 3742 | 99.2 |
| | | Don’t want to disclose | 24 | 0.6 |
| | Daily intake of coffee/tea/ soft drinks | No | 930 | 24.7 |
| | | Yes | 2842 | 75.3 |
| | Habit of taking junk food | No | 2324 | 61.6 |
| | | Yes | 1448 | 38.4 |
| | Habit of skipping breakfast | Regularly | 150 | 4.0 |
| | | Occasionally | 1643 | 43.6 |
| | | No | 1979 | 52.5 |
| | Activity | Physical work out | 533 | 14.1 |
| | | Walking | 2099 | 55.6 |
| | | Household | 924 | 24.5 |
| | | None | 216 | 5.7 |
| | Adequacy of sleep | Sufficient (7-9 hours) | 1549 | 41.1 |
| | | Inadequate (< 7 hours) | 2208 | 58.5 |

Continued.

| Variable | | | F | % |
|---|---|---|---|---|
| | | Excessive (>9 hours) | 15 | 0.4 |
| **Family characteristics** | Family history of Dysmenorrhea | Yes | 1489 | 39.5 |
| | | No | 1846 | 48.9 |
| | | Unknown | 437 | 11.6 |
| | Source of social support | Present | 3316 | 87.9 |
| | | Absent | 456 | 12.1 |
| **Contextual factors** | Blood test in last six months | Yes | 2039 | 54.1 |
| | | No | 1733 | 45.9 |
| | Anaemia- Hb level | Absent (Hb ≥ 12 gm/dl) | 1525 | 40.4 |
| | | Mild (11-11.9 gm/dl) | 687 | 18.2 |
| | | Moderate (8-10.9 gm/dl) | 522 | 13.8 |
| | | Severe (<7 gm/dl) | 29 | 0.8 |
| | Stress | Never | 110 | 2.9 |
| | | Almost never | 53 | 1.4 |
| | | Sometimes | 2121 | 56.2 |
| | | Fairly often | 1488 | 39.4 |
| | History of Covid-19 | Yes | 1424 | 37.8 |
| | | No | 2021 | 53.6 |
| | | Don't know | 326 | 8.6 |
| | | No | 3697 | 98.0 |

**Table 2: Prevalence of menstrual health problems (n=3772).**

| Menstrual health problem | F | % |
|---|---|---|
| **Present** | 3631 | 96.4 |
| **Absent** | 136 | 3.6 |

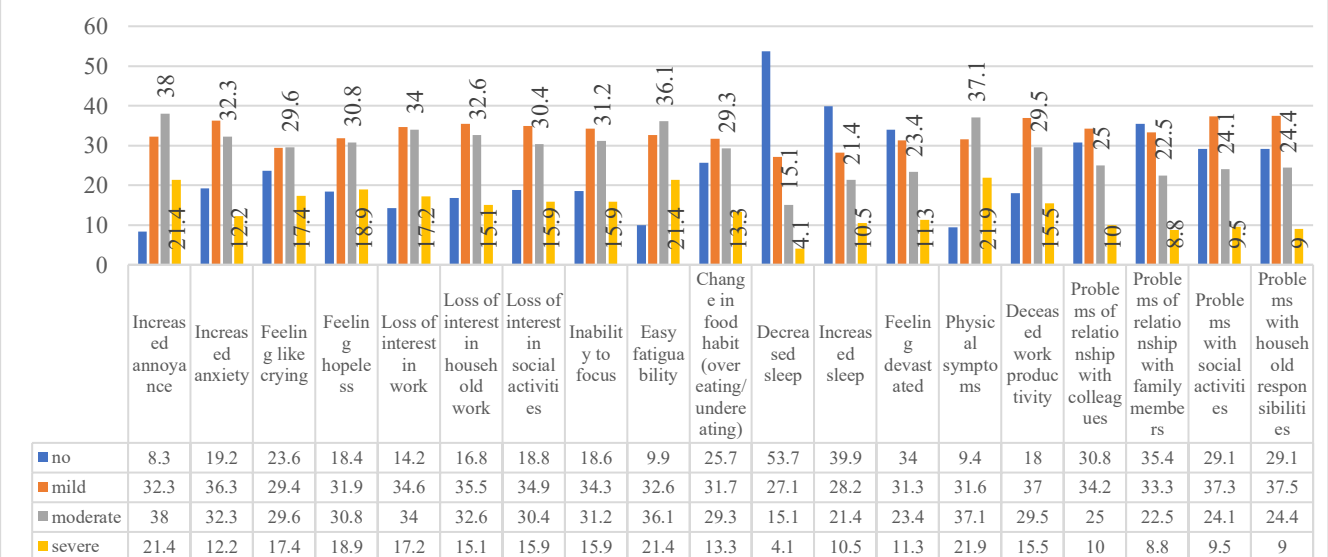


**Figure 5: Prevalence and severity of premenstrual symptoms.**

## DISCUSSION

### *Sociodemographic characteristics*

The median (IQR) age of the group was 21 (19 to 22) years in our study. A study among health science students in Saudi Arabia reported that 56.5% of students were in the age group of 21 to 25 years.[21] A study among health science students in Syria reported mean (SD) age of 21.52 (2.06) years and university students in Zimbabwe reported a mean (SD) age of 21.7 (2.7) years, very similar to our findings.[22,23] Over half (55.1%) of our participants resided in rural areas, followed by urban residents (43.2%). Coastal and tribal residents were minimal. A study from Bangalore reported majority of the students (63.3%) as urban residents.[24] Most of the students (95.3%) were

unmarried in our study. Other studies on university students also reported a similar pattern.[23-26]

***Anthropometric characteristics***

The median height for our study was 157 cm (IQR: 153 to 162 cm). The median weight was 52 kg (IQR: 45 to 59 kg). The median BMI for the total population is 20.8 (IQR: 18.4 to 23.6), which falls within the "normal weight" range. A study among nursing students in Greece reported mean height of 166 (6) cm, weight of 62. 35 (12.85) kg, underweight among 12.7% and overweight 14.6% and obesity 6.5%.[26]

***Personal characteristics***

The median age at menarche in our study was 13 years (IQR: 12–14 years). Many of the studies have reported the commonest age at menarche as 11 to 13 years 25, 13 to 15.[23] In the present study, smoking was rare (0.2%). Most consumed soft drinks (75.3%) and junk food (38.4%). A study reported 1.4% prevalence of smoking and 3.6% alcoholism and no exercise 59.5% among college girls in Karnataka.[24] Another study reported no smoking 97.1%, no alcohol 85.1%, no exercise 50.3%, drinking coffee 64.2%.[23] Inadequate sleep (<7 hours) was reported by 58.5%. University students in Ethiopia reported sleep disturbance among 57% of participants.[27]

***Family characteristics***

In the present study, overall, 39.5% of participants reported a family history of dysmenorrhea. Most participants (87.9%) reported having social support. A study among university students reported family history of dysmenorrhea as 51.4%.[27]

***Contextual factors***

In our study group, majority (56.2%) experienced stress "sometimes,". Health science students from Syria reported to have mild to moderate stress 82%, high stress 10%, low stress 8%.[22] Regarding history of COVID-19 infection, 37.8% reported a history of COVID-19, with the highest proportion among staff (60.0%) and faculty (52.0%). An Indian study reported that 40.2% of their women participants had COVID-19 infection in the past or at the time of study.[28]

***Prevalence of menstrual health problems***

In the present study, majority of the study participants (96.4%) had menstrual health problems. Abnormal cycles were reported by 26.% of the participants. Short cycles (<21 days) were reported by 17.6% of respondents. Prolonged cycles (>35 days) accounted for 10.1%. Shorter menstrual flow (<2days) was observed in 15% of participants. No participants reported flow lasting >7 days. Passing of clots was reported by 21.5%. Moderate dysmenorrhea was most prevalent (42.6%). Severe dysmenorrhea was reported by 27.6%. A study reported irregular menstruation among 27% of its participants and dysmenorrhea among 89.7%, normal cycle length 82.6%, normal bleeding days 94.5%, normal blood flow 90%. 24 University students from Ethiopia reported irregular menstrual cycle 24.6%, normal interval 21-35 days 78.1%, <21 days 2.8%, prolonged >35 days 19.1%, flow days 3-81.8%, severe dysmenorrhea 58.7%, moderate 31.7%. mild 9.64%.[21,27] Syrian health science students reported dysmenorrhea 88% and PMS 87%.[22]

In our study, menstruation prevented 39.7% of participants from attending institutions. University students from Zimbabwe reported that dysmenorrhea affects school/activity of 89.3% of students.[23] In our study menstrual bleeding impacted daily activities for 54.1% of respondents. In a study, 38% of women were not able to perform their daily activities during menstruation.[29] Only 15.2% of our study participants were willing to take menstrual leave. It said that there is a paucity of research exploring whether menstrual leave is potentially benefiting or disadvantaging menstruating women, and assessing the pros and cons of menstrual leave will ignite discussion on various dimensions of menstrual leave policy.[7]

***Menstrual problems following COVID-19 infection***

Change in menstrual pattern after COVID-19 were reported by 36.1% of respondents. Changes in flow duration included prolonged flow (4.5%) and decreased flow (13.6%). Changes in the number of pads used were rare, with most participants (89.4%) reporting no change. A study reported that 35.7% of their participants have change in menstrual pattern following COVID-19 infection, very similar to our findings.[30]

***Prevalence and severity of premenstrual symptoms***

In this study the prevalence of PMS was 77.2%. The median PMS severity score was 25 indicating mild PMS. The major PMS reported were physical symptoms including headache, breast tenderness, abdominal pain, muscle/joint pain, back pain, bloating) and affective symptoms. The prevalence of mild PMS was 37.3%, moderate PMS 30% and severe PMS 9.9%. A study from Karnataka reported the prevalence of PMS as 86%.[24] Another study reported 46% PMS/PMDD (premenstrual dysphoric disorder) and 35.9% moderate to severe PMS, similar to our study findings.[31] Another study reported the prevalence of PMDD as 5 to 6%.[10]

***Limitations***

The limitations for this study include collection of data at a single point of time which limits the establishment of causality between menstrual problems and its related factors, self-reported data may result in recall bias, social desirability bias and underreporting of sensitive issues related to cultural stigma about menstruation and online survey might had led to selection bias potentially

excluding individuals with limited digital literacy and internet access.

## CONCLUSION

The findings highlight a high burden of menstrual health problems among the study population, with significant impacts on daily activities. The prevalence of dysmenorrhea, premenstrual symptoms and heavy menstrual bleeding suggests a need for targeted interventions, including education, lifestyle modifications and improved menstrual health management strategies including counselling, physician-support or helpline. Despite these challenges, the low willingness to take menstrual leave underscores potential stigma and the need for awareness campaigns to normalize menstrual health support. Future research should explore effective interventions to mitigate menstrual-related morbidity, enhance coping mechanisms and improve overall well-being in this population.

*Funding: No funding sources*
*Conflict of interest: None declared*
*Ethical approval: The study was approved by the Institutional Ethics Committee*

## REFERENCES

1. Improvement in Knowledge and Practices of Adolescent Girls Regarding Reproductive Health with Special Emphasis on Hygiene during Menstruation in Five Years. National Institute of Public Cooperation and Child Development; 2014. Availabe at: www.nipccd.nic.in/file/reports/eaghealth.pdf. Accessed on 01 October 2025.
2. Abbas K, Usman G, Ahmed M. Physical and Psychological Symptoms Associated with Premenstrual Syndrome and Their Impact on the Daily Routine of Women in a Low Socioeconomic Status Locality. Cureus. 2020;12(10):10821.
3. Igbokwe UC, John-Akinola YO. Knowledge of Menstrual Disorders and Health Seeking Behaviour among Female Undergraduate Students of University of Ibadan, Nigeria. Ann Ib Postgrad Med. 2021;19(1):40-8.
4. Itani R, Soubra L, Karout S. Primary Dysmenorrhea: Pathophysiology, Diagnosis and Treatment Updates. Korean J Fam Med. 2022;43(2):101-8.
5. Ojezele MO, Eduviere AT, Adedapo EA, Wool TK. (2022). Mood Swing during Menstruation: Confounding Factors and Drug Use. Ethiop J Health Sci. 2022;32(4):681-8.
6. Sundari T, George AJ, Sinu E. Psychosocial Problems of Adolescent Girls during Menstruation. J Mental Health Educ. 2022;3(2):47-63.
7. Levitt RB, Barnack-Tavlaris JL. Addressing Menstruation in the Workplace: The Menstrual Leave Debate. In: Bobel C, Winkler IT, Fahs B, Hasson KA, Kissling EA, Roberts TA, editors. Chapter 43. The Palgrave Handbook of Critical Menstruation Studies [Internet]. Singapore: Palgrave Macmillan; 2020.
8. Critchley J, Schwarz M, Baruah R. The female medical workforce. Anaesthesia. 2021;76(4):14-23.
9. Ota Y, Nomura K, Hirayama J. Relationship between somatic symptoms with menstruation and intention to leave work among university hospital nurses in Japan: a cross-sectional study. Int Arch Occup Environmen Health. 2012;96(1):155–66.
10. Omu FE, Al-Marzouk R, Delles H. Premenstrual dysphoric disorder: prevalence and effects on nursing students' academic performance and clinical training in Kuwait. J Clin Nurs. 2011;20(19):2915–23.
11. Anastasakis E, Kingman CE, Lee CA. Menstrual problems in university students: an electronic mail survey. In vivo. 2008;22(5):617–20.
12. Menon A. Inclusion or optics menstrual leave brings back debate on gender justice in India, Missing Perspectives. 2023.
13. Shibimol KG. 'In a first, female students at this Kerala university can avail menstrual leave. India Today. 2023;2:968.
14. Belliappa, J. 'Menstrual Leave Debate: Opportunity to Address Inclusivity in Indian Organizations', Indian J Industrial Relations. 2018:53(4):604–17.
15. Admin. Menstrual leave debate: Balancing Equality and Productivity, IIPRD. 2023.
16. Nama S, Gaddala A, Matli P, Rajamouli J, Gurnule S, Tejaswi U. A Cross Sectional Study to assess the Prevalence of Menstrual abnormalities in Medical Students of Karimnagar. Clinical Medicine. 2020;07(11):875.
17. Perelló J, Pujol P, Pérez M. Heavy Menstrual Bleeding-Visual Analog Scale, an Easy-to-Use Tool for Excessive Menstrual Blood Loss That Interferes with Quality-of-Life Screening in Clinical Practice. Women's Health Reports. 2021;3(1):483.
18. Riaz Y, Parekh U. Oligomenorrhea (Archived). 2025. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2025.
19. Walker MH, Coffey W, Borger J. Menorrhagia(Archived). 2023 Aug 28. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2025.
20. Nagy H, Carlson K, Khan MAB. Dysmenorrhea. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2025.
21. Rafique N, Al-Sheikh MH. Prevalence of menstrual problems and their association with psychological stress in young female students studying health sciences. Saudi Med J. 2018;39(1):67-73.
22. Kahal F, Alshayeb S, Torbey A, Al Helwani O, Kadri S, Helwani A, et al. The prevalence of menstrual disorders and their association with psychological stress in Syrian students enrolled at health-related schools: A cross-sectional study. Int J Gynaecol Obstet. 2024;164(3):1086-1093.
23. Nyirenda T, Nyagumbo E, Murewanhema G, Mukonowenzou N, Kagodora SB, Mapfumo C, et al. Prevalence of dysmenorrhea and associated risk

factors among university students in Zimbabwe. Womens Health (Lond). 2023;19:9549.
24. Upadhyay M, Mahishale AK. 'Prevalence of premenstrual syndrome in college going girls - A Cross Sectional Study. Clin Epidemiol Global Health. 2023;20:101234.
25. Ali A, Ali A, Alotaibi NS, Alsufyani MS, Alotaibi AJ, Almutairi MM, et al. Prevalence, impact and management perception of dysmenorrhea among university students: A cross-sectional study. Braz J Pharm Sci. 2022;2:986-9.
26. Vlachou E, Owens DA, Lavdaniti M, Kalemikerakis J, Evagelou E, Margari N, et al. Prevalence, Wellbeing and Symptoms of Dysmenorrhea among University Nursing Students in Greece. Diseases. 2019;8;7(1):5.
27. Giletew A, Bekele W. Prevalence and Associated Factors of Primary Dysmenorrhea Among Debre Tabor University Students, North Central Ethiopia. International J Biomed Engineer Clin Sci. 2019;4(4):70-4.
28. Medarametla V, Moolamalla S. Menstrual irregularities post-covid-19 infection/vaccination in Indian population. J South Asian Feder Obst Gynae. 2023;14(6):694–9.
29. Schoep ME, Nieboer TE, van der Zanden M, Braat DDM, Nap AW. The impact of menstrual symptoms on everyday life: a survey among 42,879 women. Am J Obstet Gynecol. 2019;220(6):56-7.
30. Taşkaldıran I, Vuraloğlu E, Bozkuş Y, Turhan İyidir Ö, Nar A, Başçıl Tütüncü N. Menstrual Changes after COVID-19 Infection and COVID-19 Vaccination. Int J Clin Pract. 2022;2:3199758.
31. Bansal D, Raman R, Rao TSS. Premenstrual Dysphoric Disorder: Ranking the Symptoms and Severity in Indian College Students. J Psychosex Heal. 2019;1(2):159-63.

**Cite this article as:** Swapna KG, Rajamohanan K, Namitha P, Jisharaj VR. Understanding the burden of menstrual health issues in a health university setting: a study from Kerala. Int J Reprod Contracept Obstet Gynecol 2025;14:4263-71.