"Prevalence of Menstrual Abnormalities Among the Undergraduate Students in Selected Colleges of Guwahati Kamrup (M) Assam: A Descriptive Study".

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Abstract

Background: Menstrual abnormalities are problems that affect a woman's normal menstrual cycle. The World Health Organization (WHO) defines adolescent as any person between ages 10 and 19. This age range falls within WHO's definition of young people, which refers to individuals between the ages of 10 and 24. Dysmenorrhoea and premenstrual syndrome, is a common problem, yet it remains poorly understood and is not taken into consideration when assessing adolescent health problems. **Aims:** To assess the prevalence of menstrual abnormalities among the undergraduate students in selected colleges of Guwahati Kamrup (M) Assam. **Methods:** A descriptive research design was used to accomplish the objectives. Study was undertaken on 250 undergraduate students of age group 18years and above, in 4 (four) colleges i.e (Kamakhya Ram Barooah Girl's College, Kanya Mahavidyalaya, Pragjyotish College and Radha Govinda Baruah College) of Guwahati kamrup (Metro) Assam, by using multi-stage sampling technique and quantitative approach was adopted to achieve the study objectives. Undergraduate students were selected on the basis of inclusion criteria. A pre-tested, semi-structured questionnaire was used as a tool for the study. Data was analysed using frequencies, percentages, mean and chi-square/fisher exact p-value at the significant level of $p<0.05$ by using SPSS version 20 software. **Results: The findings revealed that prevalence of menstrual abnormalities i.e 18(7.2%) undergraduate had an average duration of menstrual flow >7days (not good) and only 17(6.8%) had <2days (not good), 26 (10.4%) undergraduate had ≤20 days of menstrual cycle length and only 19(7.6%) had ≥36 days of menstrual cycle length, 48(19.2%) had irregular monthly period flow, 42(16.8%) had menorrhagia, 97(38.8%) had metrorrhagia, 48(19.2%) had amenorrhoea. Out of the 48(19.2%) undergraduate students who had amenorrhoea. Majority i.e 32(66.7%) undergraduate students had <3 months duration of missed**

periods and only 16(33.3%) had ≥3months duration of missed periods, 205(82%) undergraduate students had dysmenorrhea, 221 (88.4%) undergraduate students had premenstrual syndrome. The association was statistically tested and result showed that there was significant association observed between average duration of menstrual flow, menstrual cycle length, monthly period flow, menorrhagia, metrorrhagia, amenorrhoea and dysmenorrhea with their selected demographic variables. However, there was no association between premenstrual syndrome and duration of missed period. **<u>Conclusion:</u>** Study revealed that Premenstrual syndrome were highly prevalent among undergraduate students followed by Dysmenorrhoea. Hence there is a need for implementing educational programs on menstrual health, screening programs for early diagnosis, which would show a great impact on their reproductive health and also lower the risks for future disease.

Keywords: prevalence, menstrual abnormalities, undergraduate students, premenstrual syndrome, dysmenorrhoea.

1.Introduction

Menstrual disorders are problems that affect a woman's normal menstrual cycle. They include painful cramps during menstruation, abnormally heavy bleeding, or not having any bleeding.[1]

Many undergraduate students are adolescents who undergo several hormonal changes that affect menstrual patterns.[2] Adolescence is a transitional phase of growth and development that occurs between childhood and adulthood. The World Health Organization (WHO) defines an adolescent as any person between ages 10 and 19. This age range falls within WHO's definition of young people, which refers to individuals between the ages of 10 and 24.[3] Menstrual cycles often are irregular through adolescence, particularly the interval from first cycle to the second cycle. Becoming less frequent as they grow older 3-5 years after menarche. Thus, menstruation in adolescents is different from adult women.[4] Menstruation irregularity is a common problem among women aged from 21 to 25 years.[5] Dysmenorrhoea and pre-menstrual syndrome, is a common problem, yet it remains poorly understood and is not taken into consideration when assessing adolescent health problems. These symptoms are reported to be the most common reasons for adolescents visiting a gynecologist.[6]

In India although many studies have been conducted and are available so far regarding menstrual abnormalities. This study aims to find out the prevalence of menstrual abnormalities regarding **average duration of menstrual flow, menstrual cycle length, monthly period flow, menorrhagia, metrorrhagia, amenorrhoea, dysmenorrhoea, premenstrual syndrome** among the undergraduate students in selected colleges of Guwahati, Kamrup (M) Assam. And to find out the association between prevalence of menstrual abnormalities among undergraduate students with their selected demographic variables which indeed will serve as a useful resource in near future.

2. Objectives

- To assess the prevalence of menstrual abnormalities among the undergraduate students in selected colleges of Guwahati Kamrup (M) Assam.
- To find out the association between prevalence of menstrual abnormalities among undergraduate students with their selected demographic variables.

3 . Methodology

A descriptive research design was used in the study to accomplish the objectives using multi-stage sampling technique for obtaining adequate sample for the study. Study was done on 250 undergraduate students of age group 18 years and above studying in selected colleges of Guwahati kamrup (M) Assam. Undergraduate students were selected on the basis of inclusion and exclusion criteria; A pretested, semi-

structured questionnaire was used to assess the prevalence of menstrual abnormalities which includes **average duration of menstrual flow, menstrual cycle length, monthly period flow, menorrhagia, metrorrhagia, amenorrhoea, dysmenorrhoea and premenstrual syndrome.** Data was analysed using frequency, percentages, mean, and chi-square/fisher exact p-value at the significant level $p<0.05$ by using SPSS version 20 Software.

4. Description of the Tool

In order to meet the objectives of the study, the following tools were constructed which consists of two sections:
SECTION I:- Demographic data.
SECTION II:- Semi-structured questionnaire

5. Data Collection Process

The data collection was scheduled from 8th November 2023 to 30th November 2023.
Prior to data collection, permission was taken from the Principal of the selected Colleges. With permission obtained the investigator, enquired about the college hours, holidays and examination schedule of the students, and the Principal was informed regarding the study and the period of data collection. A brief introduction and purpose of the study were explained to the sample before data collection, keeping in mind the ethical aspect of research, the data was collected after obtaining the informed consent of the sample for their willingness to participate in the study. The sample was selected through a multi-stage sampling technique and the inclusion criteria were taken into consideration during the selection of the sample. The samples were assured anonymity and confidentiality of information provided by them. The students took 15-20 minutes to complete the questionnaire.

6. Results

Section 1: Analysis of Demographic Variables Among Undergraduate Students.
Table-I:. Frequency and Percentage Distribution of Undergraduate Students According to Demographic Variables.

n = 250

Demographic Variables	Frequency (f)	Percentage (%)
1. Age (in years)		
18	55	22.0
19	89	35.6
20	76	30.4
21	25	10.0
≥22	5	2.0
2. Education status		
First year student	92	36.8
Second year student	79	31.6
Third year student	79	31.6
3. Age at menarche (in years)		
<12	32	12.8
12 – 14	195	78.0
15 – 17	23	9.2
4. Amount of Menstrual flow in a day		
Mild (≤2Pads/day)	127	50.8

Demographic Variables	Frequency (f)	Percentage (%)
Moderate (3-5 Pads/day)	113	45.2
Heavy (≥6 Pads/day)	10	4.0
5. **Dietary Pattern**		
Vegetarian	36	14.4
Non-vegetarian	210	84.0
Vegan	4	1.6
6. **Habit of consuming junk food.**		
Yes	225	90.0
No	25	10.0
7. **Addicted to any food.**		
Tea	85	34.0
Coffee	25	10.0
Chocolates	90	36.0
Others	50	20.0
8. **Sleep hours at night.**		
<5 hours	20	8.0
5 hours	42	16.8
6 – 8 hours	139	55.6
>8 hours	49	19.6

Section 2: Assessment on the Prevalence of Menstrual Abnormalities Among Undergraduate Students.

Table II: Frequency and percentage distribution of prevalence of menstrual abnormalities among undergraduate students.

n=250

Menstrual Disorders	Frequency	Percentage (%)
1. **Average duration of your menstrual flow**		
<2 days (not good)	17	6.8
2-7 days (good)	215	86.0
>7 (not good)	18	7.2
2. **Menstrual Cycle length**		
≤20days	26	10.4
21-35 days	205	82.0
≥36 days	19	7.6
3. **Monthly period flow**		
Regular	202	80.8
Irregular	48	19.2
4. **Menorrhagia (Heavy period) ≥ 6 pads/day.**		
Yes	42	16.8
No	208	83.2
5. **Metrorrhagia (Bleeding between periods)**		
Yes	97	38.8
No	153	61.2
6. **Amenorrhoea (Missed period)**		
Yes	48	19.2
No	202	80.8

6.1.Duration of missed period		
<3 months	32	66.7
≥3 months	16	33.3
7. Dysmenorrhea (Painful menstruation)		
Yes	205	82.0
No	45	18.0
8. Premenstrual Syndrome (Signs and Symptoms before period)		
Yes	221	88.4
No	29	11.6

Section 3: Association Between the Prevalence of Menstrual Abnormalities Among Undergraduate Students with Their Selected Demographic Variables.

Menstrual Abnormalities are:-
Table - III: Average duration of menstrual flow.
Table - IV: Menstrual cycle length
Table - V: Monthly period flow
Table - VI: Menorrhagia
Table- VII: Metrorrhagia
Table-VIII: Amenorrhoea
    VIII.I: Duration of missed period
Table - IX: Dysmenorrhea
    X: Premenstrual syndrome

Table III: Association between the prevalence of menstrual abnormalities among undergraduate students regarding the **Average duration of menstrual flow** with their selected demographic variables.

n = 250

Demographic Variables	<2 days		2 – 7 days		>7 days		Chi-square/Fisher Exact test p-value
	f	**%**	**f**	**%**	**f**	**%**	
1. Amount of Menstrual Flow in a day							
Mild (≤2Pads/day)	14	5.6	102	40.8	11	4.4	p=0.027 N.S
Moderate(3-5Pads/day)	2	0.8	104	41.6	7	2.8	
Heavy (≥6 Pads/day)	1	0.4	9	3.6	0	0	

*p<0.05, S – Significant, N.S – Not Significant

Table III: Shows that the demographic variable regarding the amount of menstrual flow in a day (p=0.027) had a statistically significant association with average duration of menstrual flow at p<0.05 level.

Hence, there is an association between average duration of menstrual flow with the amount of menstrual flow in a day. And there is no association with the demographic variables like age, education status, age at menarche, dietary pattern, habit of consuming junk food, addiction to any food, sleep hours at night.

Table IV: Association between the prevalence of menstrual abnormalities among undergraduate students regarding the **Menstrual cycle length** with their selected demographic variables.

n = 250

Demographic Variables	<20 days		21 – 35 days		≥36 days		Chi-square/Fisher Exact test p-value
	f	%	f	%	f	%	
1. Education status							χ^2=10.750 d.f=4 p=0.030 S*
First-year student	9	3.6	79	31.6	4	1.6	
Second-year student	10	4.0	57	22.8	12	4.8	
Third year student	7	2.8	69	27.6	3	1.2	
2. Age at menarche (in years)							p=0.013 S*
<12	5	2.0	22	8.8	5	2.0	
12 – 14	16	6.5	168	67.2	11	4.4	
15 – 17	5	2.0	15	6.0	3	1.2	

*p<0.05, S – Significant, N.S – Not Significant

Table IV: Shows that the demographic variable regarding educational status (χ^2=10.750, d.f=4, p=0.030) and age at menarche (p=0.013) had statistically significant association with menstrual cycle length at p<0.05 level.

Hence, there is an association between menstrual cycle length with educational status and age at menarche. And there is no association with the other demographic variables like age, amount of menstrual flow in a day, dietary pattern, habit of consuming junk food, addiction to any food, sleep hours at night.

Table V: Association between the prevalence of menstrual abnormalities among undergraduate students regarding the **Monthly period flow** with their selected demographic variables.

n = 250

Demographic Variables	Regular		Irregular		Chi-square/Fisher Exact test p-value
	f	%	f	%	
1. Age (in years)					p=0.025 S*
18	38	15.2	17	6.8	
19	72	29.2	16	6.4	
20	69	27.6	7	2.8	
21	22	8.8	3	1.2	
≥22	4	1.6	1	0.4	
2. Educational status					χ^2=9.593 d.f=2 p=0.008 S**
First year student	67	26.8	25	10.0	
Second year student	68	27.2	11	4.4	
Third year student	71	28.4	8	3.2	
3. Dietary Pattern					p=0.008 S**
Vegetarian	23	9.2	13	5.2	
Non-vegetarian	179	71.6	31	12.4	
Vegan	4	1.6	0	0	

**p<0.01, *p<0.05, S – Significant, N.S – Not Significant

Table V shows that the demographic variables regarding education status **(χ^2=9.593, d.f=2, p=0.008)** and dietary pattern **(p=0.008)** had statistically significant association with monthly period flow at p<0.01 level.

And the demographic variable age **(p=0.025)** had significant association with monthly period flow at p<0.05 level.

Hence, there is an association between monthly period flow with age, educational status, dietary pattern. And there is no association with the demographic variables like age in menarche, amount of menstrual flow in a day, habit of consuming junk food, addiction to any food, sleep hours at night.

Table VI: Association between the prevalence of menstrual abnormalities among undergraduate students suffering from **Menorrhagia** with their selected demographic variables.

n= 250

Demographic Variables	Yes		No		Chi-square/Fisher Exact test p-value
	f	%	f	%	
1. **Amount of Menstrual flow in a day**					χ^2=15.087 d.f=2 p=0.001 S***
Mild (≤2Pads/day)	12	4.8	115	46.0	
Moderate (3-5 Pads/day)	25	10.0	88	35.2	
Heavy (≥6 Pads/day)	5	2.0	5	2.0	

***p≤0.001, S – Significant, N.S – Not Significant

Table VI shows that the demographic variable regarding amount of menstrual flow in a day (χ^2=15.087, d.f=2, p=0.001) had statistically significant association with menorrhagia at p<0.001 level.

Hence, there is an association between menorrhagia with amount of menstrual flow in a day. And there is no association with the demographic variable like age, education status, age at menarche, dietary pattern, habit of consuming junk food, addiction to any food, sleep hours at night.

Table VII: Association between the prevalence of menstrual abnormalities among undergraduate students suffering from **Metrorrhagia** with their selected demographic variables.

n= 250

Demographic Variables	Yes		No		Chi-square/Fisher Exact test p-value
	f	%	f	%	
1. **Dietary Pattern**					p=0.050 S*
Vegetarian	19	7.6	17	6.8	
Non-vegetarian	75	30.0	135	54.0	
Vegan	3	1.2	1	0.4	

*p<0.05, S – Significant, N.S – Not Significant

Table VII: Shows that the demographic variable regarding dietary pattern (p=0.050) had statistically significant association with metrorrhagia at p<0.05 level.

Hence, there is an association between metrorrhagia with dietary pattern. And there is no association with the demographic variables like age, education status, age in menarche, amount of menstrual flow in a day, habit of consuming junk food, addiction to any food, sleep hours at night.

Table VIII: Association between the prevalence of menstrual abnormalities among undergraduate students suffering from **Amenorrhoea** with their selected demographic variables.

n = 250

Demographic Variables	Yes		No		Chi-square/Fisher Exact test p-value
	f	**%**	**f**	**%**	
1. Age (in years)					
18	17	6.8	38	15.2	p=0.027 S*
19	19	7.6	70	28.0	
20	7	2.8	69	27.6	
21	4	1.6	21	8.4	
≥22	1	0.4	4	1.6	
2. Education status					χ^2=6.333 d.f=2 p=0.042 S*
First year student	25	10.0	67	26.8	
Second year student	13	5.2	66	26.4	
Third year student	10	4.0	69	27.6	
3. Amount of Menstrual flow in a day.					χ^2=7.505 d.f=2 p=0.023 S*
Mild (≤2Pads/day)	26	10.4	101	40.4	
Moderate (3-5 Pads/day)	17	6.8	96	38.4	
Heavy (≥6 Pads/day)	5	2.0	5	2.0	

*p<0.05, S – Significant, N.S – Not Significant

Table VIII shows that the demographic variable regarding age (p=0.027), educational status (χ^2=6.333, d.f=2, p=0.042) and amount of menstrual flow (χ^2=7.505, d.f=2, p=0.023) had statistically significant association with amenorrhoea at p<0.05 level.

Hence, there is an association between amenorrhoea with age, educational status, amount of menstrual flow in a day.

And there is no association with the demographic variables like age at menarche, dietary pattern, habit of consuming junk food, addiction to any food, sleep hours at night.

VIII.I: Association between the prevalence of menstrual abnormalities among undergraduate students regarding the **Duration of missed period** with their selected demographic variables.

The demographic variables like age, educational status, age at menarche, amount of menstrual flow in a day, dietary pattern, habit of consuming junk food, addiction to any food, sleep hours at night did not show significant association with duration of missed period at p<0.05 level.

Table IX: Association between the prevalence of menstrual abnormalities among undergraduate students suffering from **Dysmenorrhea** with their selected demographic variables.

n= 250

Demographic Variables	Yes		No		Chi-square/Fisher Exact test p-value
	f	**%**	**f**	**%**	
1. Addiction to any food					χ^2=7.947 d.f=3 p=0.047 S*
Tea	76	30.4	9	3.6	
coffee	21	8.4	4	1.6	
chocolates	66	26.4	24	9.6	
Others	42	16.8	8	3.2	

*p<0.05, S – Significant, N.S – Not Significant.

Table-IX: shows that the demographic variable regarding addiction to any food (χ^2=7.947, d.f=3, p=0.047) had statistically significant association with dysmenorrhoea among students at p<0.05 level.

Hence, there is an association between dysmenorrhoea with addiction to any food. And there is no association with the demographic variables like age, educational status, age at menarche, amount of menstrual flow in a day, dietary pattern, habit of consuming junk food, sleep hours at night.

X: Association between the prevalence of menstrual abnormalities among undergraduate students suffering from **premenstrual syndrome** with their selected demographic variables.

The demographic variables like age, educational status, age at menarche, amount of menstrual flow in a day, dietary pattern, habit of consuming junk food, addiction to any food, sleep hours at night did not show association with premenstrual syndrome among undergraduate students at p<0.05 level.

7. Discussion

The prevalence of menstrual abnormalities among undergraduate students of selected 4(four) colleges i.e (Kamakhya Ram Barooah Girl's College, Kanya Mahavidyalaya, Pragjyotish College and Radha Govinda Baruah College) of Guwahati kamrup (Metro) Assam. In the present study it shows that out of 250 undergraduate students, majority 221 (88.4%) had premenstrual syndrome and 205 (82%) had dysmenorrhoea which were the most common abnormalities found among the undergraduate students. This study is supported by Kulshrestha S. in uttar Pradesh, India found that the most common disorder was PMS (71.3%) followed by dysmenorrhoea (46%).[7] This study is also similar to the study done by Odongo E, reported that premenstrual syndrome were the most commonest disorder (93.8%) followed by dysmenorrhea (63.6%) [8]

Table I: In this study, undergraduate students were between the age group of 18years and above, with majority 89(35.6%) undergraduate students were in the age group of 19years. This study is comparable with the study conducted by Muskan V. in Nepal, among undergraduate female students who were aged 18-25years.[9] Another study by Jeevitha, K.J., 18-22years, Nama S. 19-25 years. [10,11] In the present study, 195(78%) menarche age of undergraduate students were between the age group of 12-14 years. This study is consistent with the study conducted by Majhi TK. i.e 224 (64%) girls started menarche at the age of 12-14 years. [12] In this study, majority undergraduate students 127(50.8%) had mild (≤2pads/day) amount of menstrual flow in a day, 210(84%) were non-vegetarian. This study is contrast from the study conducted by Lakkawar NJ where the amount of flow mild (2pads/day) had 32(16%).[13] In this study, majority had habit of consuming junk food 225 (90%) and addiction to chocolates 90 (36%) whereas study done by Lakkawar NJ reported 86.5% and addiction to tea, coffee or other items reported 29%.[13]

Table II: In this study reveals that out of 250 undergraduate students, majority 215 (86%) had an **average duration of menstrual flow** 2-7days (good). This can be comparable with the study conducted by Uc IA. John-Akinola YO. in Nigeria found 306 (84%) average duration of menstrual flow 2-7days (good). [14] In this study, 205 (82%) had 21-35days of menstrual cycle length. This study is consistent with the study conducted by Laksham K, in Puducherry i.e 21-35days, 106 (89.1%) length of cycles. [15] Other study is contrast with the study conducted by Uc IA. John-Akinola YO. in Nigeria, 239 (65.8%) had 24-38days (good) length of monthly cycle. [14] In this study, 48 (19.2%) had **irregular menstrual flow** whereas the study can be compared with the study conducted by Kanti V. in Uttar Pradesh, India reported that 18% (27) girls had irregular cycle. [16] Another study conducted by Rajipet P. et al in Telangana; showed 18.4% irregular menstrual cycles. [17] In the present study, i.e 42 (16.8%) had **menorrhagia.** The prevalence of menorrhagia in this study is similar to the study conducted by Laksham K, in Puducherry 21(17%).[15] Whereas it is contrast with the study conducted by Beevi NP. in Kerela, India had reported 31% menorrhagia which was higher than the present study. [18] **Metrorrhagia,** in this study had 97 (38.8%). Whereas the study findings is contrast with the study conducted by Gerema U. et.al. in Southwest Ethiopia reported metrorrhagia 59 (26.2%) [19] In this study 48 (19.2%) had **amenorrhoea** (missed period). Out of 48(19.2%) undergraduate students who had amenorrhoea, majority i.e 32 (66%) had <3months duration

of missed period and only 16 (33.3%) had ≥3months duration of missed period, this study can be compared with the study conducted by Uc IA. John-Akinola YO. et.al in Nigeria i.e 143 (39%) had amenorrhoea (missed period) and duration of missed period <3months 123(86.7%), ≥3months i.e 19 (13.3%).In this study, **premenstrual syndrome and dysmenorrhoea** 221 (88.4%), 205 (82%) which is the most common abnormalities among undergraduate students which can be compared with the study by Kulshrestha S. [7]

Our findings revealed that there is statistically significant association between prevalence of menstrual abnormalities among undergraduate students with their selected demographic variables like age, educational status, age at menarche, amount of menstrual flow in a day, dietary pattern, habit of consuming junk food, addiction to any food at p<0.05 level. **Table III:** In this study there was significant association between average duration of menstrual flow with amount of menstrual flow in a day at p<0.05 level. **Table IV**: There was significant association between menstrual cycle length with educational status and age at menarche at p<0.05 level. This study is contrary with the study conducted by Uc IA. John-Akinola YO. in Nigeria showed no statistical significant association between age at menarche and prevalence of menstrual disorders (p=0.599). [14] **Table V:** There was significant association between monthly period flow with educational status and dietary pattern at p<0.01 level. And there was significant association between monthly period flow with age at p<0.05 level. **Table VI:** There was significant association between menorrhagia ≥6pads/day with amount of menstrual flow in a day at p<0.001 level. Whereas, In a study conducted by Ibrahim PM in the North-Eastern part of Tanzania found that age was found to be associated with heavy menstrual bleeding as a result of self-reported, use of more than 5sanitary pads per day. [20] **Table VII:** There was significant association between metrorrhagia with dietary pattern at p<0.05 level. **Table VIII:** There was significant association between amenorrhoea with age, educational status and amount of menstrual flow at p<0.05 level. **Table IX:** In our study, there was significant association between dysmenorrhoea with addiction to any food at p<0.05 level. This study can be compared with the study conducted by Kanti V in Uttar Pradesh, India found that there was significant association between dysmenorrhoea and regular consumption of junk food. [16] whereas, another study by conducted by Lakkawar NJ in India, showed that dysmenorrhoea was significantly associated with junk food consumption (p≤0.001). [13] Also, showed Significant association was found between irregular cycles, abnormal flow, dysmenorrhoea and PMS with frequent consumption of junk food.[13] **VIII.I and X:** In our study, there was no significant association between premenstrual syndrome and duration of missed period with their selected demographic variables like age, educational status, age at menarche, amount of menstrual flow in a day, dietary pattern, habit of consuming junk food, addiction to any food, sleep hours at night at p<0.05 level.

8.Limitations

In our study, the investigator encountered several limitations within the selected 4 (four) colleges i.e (Kamakhya Ram Barooah Girl's College, Kanya Mahavidyalaya, Pragjyotish College, and Radha Govinda Baruah College) of Guwahati Kamrup (Metro) Assam. Firstly, the timing coincided with examination periods in some colleges, while others were busy with various college events and functions. Additionally, some colleges did not want to spare classes for students to answer the questionnaire.

9.Conclusion

After analyzing data collected, this study revealed that menstrual abnormalities which were highly prevalent among undergraduate students in the selected colleges of Guwahati, Kamrup (M) Assam. Premenstrual syndrome and Dysmenorrhoea were the most prevalent menstrual abnormalities among the undergraduate students. Hence there is a need for implementing educational programs on menstrual health, screening programs and offering counselling services and creating supportive environment in colleges for early diagnosis and management of menstrual abnormalities, which would show a great impact on their reproductive health and also lower the risks for future disease.

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