

## Original Research Article

# Dysmenorrhoea during the COVID-19 lockdown: a study of women in the age group 18-45 years in Goa, India

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## ABSTRACT

**Background:** Dysmenorrhea can be incapacitating and affect a woman's quality of life and productivity. Our aim was to ascertain the prevalence and attributes of dysmenorrhea among women aged 18-45 years in the state of Goa, India; the attitude towards dysmenorrhea and management methods; and to also understand the impact of the COVID-19 lockdown on women experiencing dysmenorrhea.

**Methods:** A self-administered Google form was circulated and analysed using STATA-statistical software version 16. The study was conducted under the observation of Goa Medical College, in the months of May and June of 2020.

**Results:** 87.7% (664) of participants experienced dysmenorrhea of which 72% had moderate-severe pain during menses. The pain lasted for 1-4 days in 98.6% of the respondents. A total of 69.25% women took some measures to relieve the pain; however only 27% of them sought professional medical help. During the lockdown 17% participants noticed a change in their periods. A change in the method of pain management was reported in 12.05% of the women. It was noted that the younger age group reported more changes in their periods during the lockdown.

**Conclusions:** Dysmenorrhea impacted the lives of a large proportion of women. Even though some experienced incapacitating pain, many women did not seek medical advice. The lockdown due to the COVID-19 pandemic affected the menstrual cycle including dysmenorrhoea and its management. The high prevalence of dysmenorrhea coupled with inadequate utilisation of health services, makes it all the more important to utilise the results of this study in order to educate women about the effective methods of treatment.

**Keywords:** COVID-19 lockdown, Dysmenorrhea, Management, Menstrual symptoms, Mixed methods approach

## INTRODUCTION

Dysmenorrhea means 'difficult monthly flow'.<sup>1</sup> It is a severe, painful, cramping sensation in the lower abdomen and is often accompanied with lower back pain, nausea, vomiting, headache and diarrhoea. It is a very common menstrual disorder and is responsible for absenteeism from school and interruption of social activities.<sup>2</sup> The prevalence of dysmenorrhea varies between 16% and 91% in women of reproductive age, with severe pain in 2-6% of the women studied.<sup>3</sup>

It can be divided into 2 categories: primary and secondary. The term primary dysmenorrhea describes

cyclic menstrual pain without an identifiable associated pathology. Secondary dysmenorrhea may be due to endometriosis, leiomyomas, pelvic inflammatory disease (PID), endometrial polyps, adenomyosis etc.<sup>4</sup>

With primary dysmenorrhea the pain is suprapubic and spasmodic, and associated symptoms may be present. Primary dysmenorrhea usually begins shortly after menarche. The pain is classically described as cramping, lasting for 48-72 hours and is most severe during the first or second day of menses.

Normal menstruation involves an interplay of several crucial factors such as a healthy diet, hormones, adequate

physical activity and psychological factors.<sup>5</sup> Menstruation therefore, is an important indicator of women's health, reflecting not only their endocrine function but also their overall quality of life and health status.

The COVID-19 pandemic affected India in March 2020 and currently the country is facing the second wave of the pandemic which has affected 27.4 million people, leading to 3.5 lakh deaths at the time of reporting the study. The lockdown and quarantine measures to combat the COVID-19 pandemic across the world have been helpful in slowing the transmission of the disease, however it has had a profound impact on the overall well-being of individuals. Restrictions imposed consequently have disrupted the routines of many, and have influenced the physical and psychological factors causing significant stress and affecting menstruation.

Dysregulation of the hypothalamic-pituitary-adrenal (HPA) axis and decreased gonadotropin-releasing hormone (GnRH) causing functional hypothalamic amenorrhea have been identified as the primary causes of irregularities in the menstrual cycle.<sup>6</sup>

Many risk factors are associated with increasing severity of pain, these include early age at menarche, smoking, long menstrual periods, heavy menstrual periods, family history of dysmenorrhea and increased BMI. Parity appears to improve dysmenorrhea.<sup>7</sup>

Pathophysiologically, prostaglandins are implicated in dysmenorrhea. During endometrial sloughing, endometrial cells release prostaglandins as menstruation begins. Prostaglandins stimulate myometrial contractions and ischemia. Women with more severe dysmenorrhea have higher levels of prostaglandins in the menstrual fluid, and these levels are highest during the first 2 days of menstruation.<sup>8</sup>

In primary dysmenorrhea since the basic pathology is increased uterine activity due to excessive release of uterine prostaglandins hence, treatment with NSAIDs gives significant relief.<sup>4</sup> Oral contraceptive agents suppress endometrial growth, thus decreasing menstrual flow as well as uterine prostaglandins.

In secondary dysmenorrhea treatment of the underlying condition like endometriosis, PID, etc. provides adequate relief. Good medical management is effective in 80-95% of cases.<sup>4</sup>

Complementary and alternative medicine including vitamin supplementation, dietary modifications, yoga and hot water bag application have been evaluated for dysmenorrhea.<sup>9-11</sup>

Although menstruation is a normal part of a woman's life, severe period pain should not be.<sup>12</sup> Dysmenorrhea is not widely discussed and most women believe or are told

that it is a normal part of menstruation. Although dysmenorrhea is highly prevalent among women and causes significant disruptions in their daily lives, few women seek medical evaluation and treatment for it.<sup>13</sup>

Through this study we aim to ascertain the prevalence and attributes of dysmenorrhea among women aged 18-45 years in the state, understand the attitude towards dysmenorrhea and management methods and to understand the larger impact of the lockdown due to COVID-19 on the women experiencing dysmenorrhea.

## **METHODS**

A cross sectional study was conducted under the observation of Goa Medical College, on females aged 18 to 45 years, all of whom were residents of Goa, during the months of May and June, 2020.

### ***Method of data collection***

A self-administered Google form questionnaire was circulated which included all the parameters that are being studied.<sup>14</sup> Open ended questions were also asked pertaining to the changes in menses during the COVID-19 lockdown to understand further the shift in symptoms and management. Due to the limitations that came with the COVID-19 lockdown, the questionnaire was circulated online via means of social media.<sup>15,16</sup>

### ***Study design***

It was a cross sectional analytical study.

### ***Study setting***

Study was conducted amongst residents of Goa.

### ***Sample size***

Sample size was 757. Sample size was estimated based on a prevalence of 60% found in similar studies, with 95% confidence and 4% margin of error. The calculated sample size was found to be 576 which upon consideration of 10% for non-responders gives a minimum sample size of 634.<sup>17</sup>

### ***Eligibility criteria***

Females between the age of 18-45 years were included.

### ***Exclusion criteria***

Females not residing in the state of Goa, India.

### ***Analysis***

Data was transferred to Microsoft Excel and was analysed using STATA-statistical software version 16 for

data science. Pearson r correlation tests were employed with a level of significance of  $p < 0.05$ . We adopted a mixed methods approach and used qualitative methods for analysing the answers to the open-ended questions. The qualitative data was coded and analysed.

**Ethics**

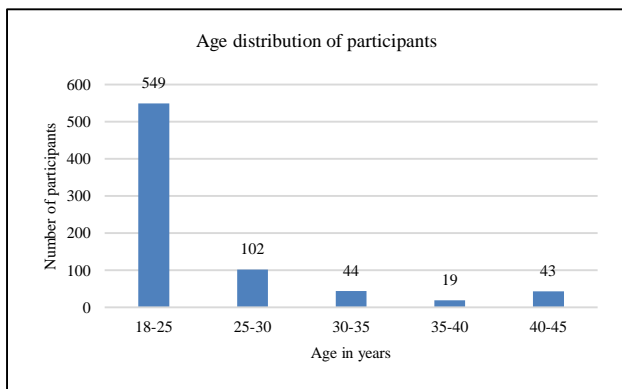
Institutional Ethics Committee, Goa Medical College approval was taken prior to the study. Informed Consent was taken from all the participants prior to them filling in the questionnaire. The data was kept confidential.

**RESULTS**

A total of 802 females answered the online questionnaire out of which only 757 participants met the inclusion criteria and were considered for the study.

**Table 1: Socio-demographic characteristics of the participants (n=757).**

Characteristic	Number	%	
<b>Occupation of respondents</b>	Student	499	65.9
	Medical professionals	64	8.45
	Homemakers	31	4.09
	Others	163	21.53
<b>Marital status</b>	Unmarried	668	88.24
	Married	89	11.76
<b>Level of physical activity</b>	Intense- frequent gym, running, swimming	67	8.85
	Moderate- walking, infrequent workouts	523	69.09
	No exercise	167	22.06
<b>BMI category</b>	Underweight (<18.5)	129	17.03
	Normal (18.5 -22.9)	337	44.47
	Overweight (23-24.9)	110	14.61
	Obesity grade 1 (25-29.9)	132	17.41
	Obesity grade 2 (>30)	49	6.48



**Figure 1: Age distribution of participants.**

The demographical data of the respondents is presented in tabular and figure form (Table 1, Figure 1).

**Dysmenorrhoea**

Amongst the 757 participants who were considered for the study, 87.7% (664) participants reported that they experience pain during their menses.

**Table 2: Characteristics of menses and dysmenorrhoea in the participants (n=664).**

	Total	%	
<b>Age at menarche (years)</b>	9-11	142	18.80
	12-14	538	71.10
	15 and above	76	10.10
<b>Number of days of flow (days)</b>	3 or less	131	17.30
	4-5	504	66.60
	6-8	107	14.10
<b>Number of days of pain during menses (days)</b>	1 - 2	585	88.10
	3 - 4	70	10.50
	5 or more	9	1.40
<b>Subjective assessment of grade of pain during menses</b>	Mild	179	27
	Moderate	334	50.30
	Severe	151	22.70
<b>Frequency of pain</b>	Once every 6 months or more	38	5.70
	Once every 3 months	180	27.10
	Every month	446	67.20
<b>Locations of pain</b>	Lower abdomen	596	89.80
	Lower back	323	48.60
	Thighs	151	22.70
	Other sites (legs, feet, hands, vagina)	30	4.50

The characteristics of various aspects of menses and dysmenorrhoea are given in tabular form (Table 2).

Pearson r correlation between the age at menarche and the age at which pain was first experienced gave a positive correlation which was highly significant [ $r(633)=0.3104^*$ ,  $p < 0.0001$ ]. This implied that earlier the menarche, the earlier the age at which the participants would first experience the pain.

Age, BMI and the level of physical activity of all the participants who experienced pain during their menses were correlated with different aspects of pain (Table 3). As seen in the table, a negative correlation with high degrees of significance was seen between age and the grade of pain during menses [ $r(644)=-0.0979^*$ ,  $p=0.0130$ ]. This would imply that participants who was older, had a lower grade of pain.

**Table 3: Age, BMI and Level of physical activity of respondents correlated with various aspects of pain. (n=644, non-responders=20).**

	Grade of pain	Pain frequency	Days of pain during menses	Days of flow during menses
<b>Age (years)</b>	r=-0.0979* p=0.0130 n=644	r=0.0200 p=0.6118 n=644	r=-0.0622 p=0.1146 n=644	r=-0.1997* p=0.0001 n=744
<b>BMI</b>				
Underweight (<18.5)	-0.02	-0.008	0.038	0.026
Normal (18.5 -22.9)	-0.001	-0.002	0.054	0.011
Overweight (23-24.9)	0.073	0.064	0.07	0.009
Obesity grade 1 (25-29.9)	0.133	0.041	0.16	0.063
Obesity grade 2 (>30)	-0.126	0.01	-0.115	-0.155
<b>Level of physical activity</b>	-0.0288	-0.0375	0.0087	-0.0635*

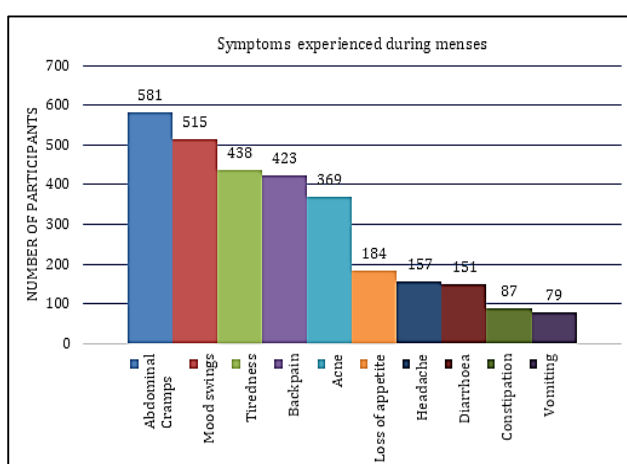
**Table 4: Correlation table of the pain characteristics of participants.**

	Days of pain during menses	Frequency of pain	Grade of pain	Days of flow during menses
<b>Days of pain during menses</b>	1			
<b>Frequency of pain</b>	r=0.1329* p=0.0007 n=644	1		
<b>Grade of pain</b>	r=0.1683* p=0.0001 n=644	r=0.2388* p=0.0001 n=644	1	
<b>Days of flow during menses</b>	r= 0.1035* p= 0.0085 n=644	r= 0.0338 p=0.3913 n=644	r=-0.1252* p=0.001 n=644	1

The various attributes of the pain such as days of pain, frequency of pain, grade of pain as well as days of flow during menses were correlated in the participants complaining of pain (Table 4).

to work/college and 28.5 (189) said makes them slightly uncomfortable but they can still go to work/college.

The common symptoms experienced by the participants are shown in the Figure 2.



**Figure 2: Common symptoms experienced by respondents during menses.**

In this study, 21.8% (145) said the pain was so severe that they had to miss work/college, 49.7% (330) said the pain makes them very uncomfortable but they can still go

Amongst the 57 participants who had undergone a delivery, 59.6% (34) reported that there was no reduction, while 40.4% (23) reported that there was a reduction in their menstrual pain after delivery.

**Knowledge, attitudes and practices**

Out of all the 664 women who experience dysmenorrhea, only 27% (179) respondents consulted a doctor regarding their pain. Of these, 80.2% consulted Allopathic, 11.2% consulted Homeopathic and 8.6% consulted Ayurvedic doctors. A majority i.e., 73% (485) respondents did not consult any doctor regarding their pain. The reasons given by respondents for the latter were that 81.8% (401) of them believed or were told that the pain and discomfort is a normal part of menstruation while 10.2% (50) of them found home remedies to be effective.

In our study, 69.25% (446) respondents took some measures to relieve the pain while 30.75% (198) did not. On using Pearson r correlation, it was seen that women

who had a higher grade of pain resorted to measures to relieve the pain ( $p=0.3521$   $n=644$ ).

We found that 51.6% (243) women resorted to tablets to relieve their pain. Tablets were prescribed by doctors to 47.7% (116) women, recommended by a friend to 32.9% (80), and self-prescribed in 5.7% (47). Using Pearson r correlation, it was found that most of these women did so because they experienced a higher grade of pain ( $p=0.2358$ ).

It was also seen that 37.3% (81) of the women using tablets/allopathic medications used mefenamic acid + dicyclomine FDC, followed by dicyclomine 25.3% (55); mefenamic acid 16.5% (36); paracetamol 12.9% (28); ibuprofen 7.3% (16); diclofenac 0.4% (1).

The women also resorted to home remedies to relieve the pain which includes hot water bags 69% (325), exercise 19% (89), vitamin supplements 4% (19) and special foods and drinks 18% (86) such as hot soup, ginger water, ginger juice with honey, black tea etc.

The knowledge of participants regarding occurrence of dysmenorrhea due to an underlying condition was as follows; 57.2% (379) believed dysmenorrhea is a normal part of menstruation, 38.7% (257) said it could also be due to some underlying condition and 4.2% (28) felt it was only due to some underlying condition.

#### **Familial factors of dysmenorrhoea**

Amongst the participants who had painful menses 81.6% (542) reported that their mothers had pain and 18.4% (122) answered that their mother didn't have pain.

A significant positive correlation was found amongst the participants with painful menses and a family history of dysmenorrhea i.e., in the mother and sister [ $r(296)=0.1355^*$   $p=0.0197$ ].

#### **Changes in menses during the lockdown due to COVID-19 pandemic**

Amongst the 757 participants, 17.04% (129) participants noticed a change in their period and 11.76% (89) participants had irregular periods. However, 82.96% (628) reported that there was no change in their period during the lockdown.

When participants were asked to describe the change, 5.81% (44) said they had delayed periods, including 1.98% (15) of participants who reported that their period was delayed by a month or more, 1.3% (10) who had shorter cycles, 1% (8) who had decreased flow during menses, and 0.4% (3) who had heavier flow. 1% (8) participants said their periods had regularised.

Amongst the participants (664), 7.08% (47) said their pain had increased, 8.58% (57) participants said their

pain had decreased and 84.34% (560) said the pain had remained the same as that before lockdown.

A total of 87.95% (584) of the 664 women said they didn't have to change their method of pain management, while 12.05% (80) had to change their method of pain management during the lockdown, of which 27.5% (22) participants said they could rest more, 23.7% (19) said they got more time to exercise, 8.7% (7) said they started taking tablets and 12.5% (10) said they switched from medications to home remedies.

Correlation of age, BMI, level of physical activity of the participants was done with the change in periods during the lockdown using Pearson r correlation (Table 5).

**Table 5: Correlation of age, BMI, level of physical activity of the participants with the change in dysmenorrhoea during lockdown.**

	Change in periods during lockdown	Change in intensity of pain during lockdown
<b>Age (years)</b>	$r=-0.0827^*$ $p=0.0203$ $n=757$	$r=0.0222$ $p=0.5710$ $n=644$
<b>BMI</b>	$r=0.0232$ $p=0.5565$	$r=-0.0014$ $p=0.9694$
<b>Level of physical activity</b>	$r=0.0195$ $p=0.6194$	$r=0.0078$ $p=0.8276$

A negative significant correlation was seen between the age and a change in the menses during the lockdown [ $r(757)=-0.0827^*$   $p=0.0203$ ] which implied that participants of older age groups had lesser/no changes in their period during the lockdown while younger participants had a change in their periods.

In order to get a better understanding of the impact of the lockdown on the periods, we asked open ended questions. Some of the replies are provided below in verbatim. "My periods are delayed by a month, which never happens otherwise", said an 18-year-old. A 21-year-old student said, "There was a two-month interval between my periods (during the lockdown), whereas I usually have a normal cycle". Another 21-year-old student said "My mood swings are worse; I have insomnia and increased lethargy". "Too much of blood loss and more tiredness", responded a 24-year-old woman.

A 25-year-old participant (teacher) stated, "I have PCOD and the weight gain during the lockdown worsened the irregularities in my periods". In contrast we also had responses indicating a positive impact. "I had irregular periods but since lockdown they've regularised", said a 22-year-old. Another 20-year-old attributed this regularisation to more consistent meals eaten during lockdown.

With regards to the pain management, a 23-year-old said, "During the months where I exercise regularly, I experience no pain, but when I'm inactive the pain is intense. Lockdown has given me more time to exercise so I don't have any pain". "I started practicing yoga to reduce cramps and have increased my water intake", said a 22-year-old. "Since I'm at home I could avoid taking tablets and tried home remedies instead", said one 21-year-old participant. One 24-year-old participant stated, "I try to take fewer tablets and use other strategies like rest, hot water bags which weren't feasible when I had to go to work". A 19-year-old said, "I only started taking tablets during lockdown".

## DISCUSSION

Prevalence of dysmenorrhoea in our study population was found to be 87%. Other studies reported a prevalence ranging from 60-90%.<sup>15-18</sup>

In our study, 73% of women described their pain as moderate-severe. Studies on female students in India and Turkey reported a similar result of 66% and 70% respectively.<sup>16,19</sup>

The incapacitation and absenteeism consequent to the pain was 21.8%, where the participant was unable to attend to daily activities. However, 49.7% said that despite severe pain they managed to attend to their daily activities. This was consistent with a study in Indian female students.<sup>16</sup>

The most common sites at which the participants felt pain during their menses were the lower abdomen 89.8% (596), lower back 48.6% (323) and thighs 22.7% (151). These were similar to those found in a study done on Palestinian women.<sup>20</sup>

In our study, 88.1% (585) of participants had 1-2 days of pain during their menstruation, which is in accordance with other studies.<sup>16</sup>

We found that 67.2% of women with dysmenorrhoea reported having pain frequently (every month) which was similar to the findings in the study conducted in Indian students.<sup>16</sup>

Our results showed that the grade of pain decreases with increasing age ( $r=-0.0979^*$   $p=0.0130$ ) which is consistent with other studies.<sup>17,22</sup>

A significant correlation was found between the days of bleeding during menses and the grade of dysmenorrhoea ( $r=0.1252^*$   $p=0.0015$ ) which indicates that females with longer days of menstrual flow have a greater severity of pain. This result is comparable with other data reported in literature.<sup>7,19,21,22</sup>

A positive and significant correlation was observed between the grade of pain during dysmenorrhoea and the

frequency of the pain [ $r(644)=0.2388^*$   $p=0.0001$ ] in accordance with observations other studies.<sup>16</sup> This suggests women who had pain more frequently reported a higher intensity of pain.

It was found that women with longer durations of perceived pain per menses had a greater intensity of pain. ( $r=0.1683^*$   $p=0.0001$ ). This association was also found by a study in Indian female students.<sup>16</sup>

No relation was found between BMI as well as physical activity with dysmenorrhoea similar to the studies.<sup>16,23</sup> However a study in Saudi Arabia showed a positive correlation between a high BMI and dysmenorrhoea and improvement with physical activity.<sup>24</sup>

According to our study majority of the participants attained menarche between age of 12-14 years and this finding is consistent with other studies.<sup>22,25</sup> Women with dysmenorrhoea were found to have an earlier age at menarche. This was in agreement with other studies.<sup>7,21</sup>

Moreover, a statistically significant positive correlation was found between age at menarche and age at which pain was first experienced this implies that the earlier age at menarche, the earlier the age at which pain was first experienced. This finding is consistent with findings from a study conducted by Marzieh et al.<sup>26</sup>

In our study amongst the participants with painful menses around 82% reported that their mother also had painful menses at some point. This is in accordance with previous studies.<sup>27,28</sup> A 5 times greater risk of developing primary dysmenorrhoea is associated with a positive family history.<sup>29</sup> The study also revealed that among participants with painful menses, a majority of their sisters also had dysmenorrhoea. These findings are consistent with other studies where a significantly higher prevalence of dysmenorrhoea was seen among those with a positive family history.<sup>19,28</sup>

Among participants who have undergone a delivery, a greater proportion reported no reduction in menstrual pain following delivery. This finding is supported by other studies where a decreasing trend of dysmenorrhoea was seen with increasing number of live births.<sup>17,30</sup> However, our results differ from other studies where significant improvement in severity of dysmenorrhoea was observed following delivery.<sup>31</sup>

Dysmenorrhoea was reported by a large proportion of women in our study, yet it was seen that 73% (485) of the women did not seek any treatment for the same because they believed that the pain was a normal part of their menstruation. A study done on female students of a university in Nigeria showed that a similar proportion (76%) of women refrained from seeking any help for their symptoms.<sup>32</sup>

In this study, only 27% (179) of women actually consulted a doctor. The others either found their home remedies to be effective, or they considered symptoms to be tolerable and were embarrassed to seek help. This minimal utilization of medical advice was previously observed in various other studies.<sup>16,32-36</sup>

The treatment seeking behaviour was more prevalent in those who experienced a higher grade of pain. Over half of these women used allopathic tablets such as mefenamic acid-dicyclomine FDC to relieve their pain, which is consistent with the studies on dysmenorrhoea done amongst students in Spain as well as in Bangalore.<sup>37,38</sup> Homeopathic and Ayurvedic practitioners were also approached by some women in order to abate their symptoms.

During the lockdown due to the COVID-19 pandemic 129 (17%) women perceived changes in their period. The most common change was irregularity in their period 11.7% (89). The irregularities noticed were delayed periods 5.8% (44), shorter cycles 1.3% (10), decreased flow during menses 1% (8), heavier flow during menses 0.4% (3). 2% (15) women had a delay in their cycle of a month or more, this change was noticed more during the initial period of lockdown. A few participants 1% (8) felt their periods had regularised during the lockdown. A majority of participants 82.96% (628) reported that there was no change in their period during the lockdown. It was noticed that younger women had a greater change in their periods as compared to older women, during the lockdown [ $r(757)=-0.0827^* p=0.0203$ ].

With respect to change in dysmenorrhea, 7.08% (47) women said they felt their pain had increased while 8.58% (57) participants said their pain had decreased during the lockdown. A majority of participants 84.34% (560) said the pain had remained the same as that before lockdown.

Regarding pain management, 12.05% (80) changed their method of pain management during the lockdown. Of these participants, 12.5% (10) said they switched from medications to home remedies, 27.5% (22) participants had similar views and felt they could rest more in the lockdown and a few participants 8.7% (7) said they started taking tablets for the pain during the lockdown.

Dysmenorrhoea should not be looked upon as just a gynaecological complaint. As the study showed, it is a significant cause of gynaecological morbidity in women in the reproductive age group. The condition not only impacts the individual, but also impacts their ability to work and productivity and therefore has larger implications. The COVID-19 pandemic and the subsequent lockdown has a significant impact on the mental health status and quality of life and lifestyle of women, thus impacting menstruation dysmenorrhoea and its management. The impact can be varied and can be modified depending on the degree of stress and coping

mechanisms adopted by the individuals. The second wave, which is accompanied with a higher incidence in younger age group and greater case fatality, may show a higher impact and needs to be addressed. India has several national health programmes which focus on the health of women in the reproductive age group and they should give greater emphasis to women's health during the COVID-19 pandemic and lockdown.

The study did have some limitations which we would like to acknowledge. The questionnaire was distributed online, therefore the majority of responses were from young women, who were more likely to have a smart phone. The sample cannot be treated as a representative of entire state. Secondly assessment was done by a self-report questionnaire and clinical examination was not feasible, the participants with secondary dysmenorrhea could not be assessed.

## CONCLUSION

Dysmenorrhea impacted the lives of a large proportion of women in our study.

With regards to the changes in menses and dysmenorrhoea during the lockdown due to COVID-19, it was seen that irregular menstrual cycles, increased pain during menses and difficulty in accessing medication were all prevalent which could have arisen because of the change in lifestyle and stress that came with the lockdown.

The treatment seeking behaviour was more prevalent in those with a higher grade of pain. Most women used allopathic drugs to abate their symptoms while others resorted to home remedies.

Even though some experienced moderate to severe pain, many women did not seek medical advice for the same as they believed or were told that it was a normal part of their menses.

The high prevalence of dysmenorrhea coupled with inadequate utilization of health services, highlights the need to educate women about the effective methods of treatment.

## Scope

This study highlights significant morbidity due to dysmenorrhoea in women in the reproductive age group. It also highlights the hesitancy in treatment seeking behaviour. The second wave of the COVID-19 pandemic, which has affected younger people and is accompanied with higher degree of case fatality may cause a higher degree of stress and consequent impact on menstrual health. This needs further research with the aim of developing innovative interventions to reach out to women in need through the existing health care delivery system.

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