

Review Article

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## A Study to assess the Prevalence of Primary Dysmenorrhea among Women in selected Hospital Coimbatore.

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### Abstract

#### Research question:

What is the prevalence of dysmenorrhea severity and its associated symptoms among women?

#### Objectives:

To assess the level of menstrual pain. (2) To assess the level of menstrual symptoms. (3) To identify the association between menstrual symptom and level of pain.

#### Setting and Participants:

The study was conducted at Rao Hospital of Coimbatore district, among hundred womens of age group 12-40 years.

#### Statistical analysis:

Percentages, Chi-square test.

#### Results:

The result indicate that out of hundred women 75% are affected dysmenorrhea. The women reported with dysmenorrhea are relatively high, among these moderate dysmenorrhea was seen in 61% of cases, 22% presented with severe dysmenorrhea, mild dysmenorrhea was seen in 10% and 7% presented with more severe dysmenorrhea. The most common symptoms affected were abdomen pain(70%), back pain(63%), leg cramps(45%), acne(63%), tiredness(68%), mood swings(65%), insomnia(35%), altered appetite(40%), nausea (or) vomiting(60%), diarrhea(25%).

#### Keywords

Womens,  
dysmenorrhea,  
menstrual symptoms,  
level of pain.

## Introduction

**“Pain is such an uncomfortable feeling that even a tiny of it is enough to ruin every enjoyment”**

**- Will Roger**

Pain is an unwanted experience that can affect the individual experiencing it negatively depending on its intensity, location, quality and duration. One of the causes of pain among women is dysmenorrhea. Dysmenorrhea can be defined as pain during menstruation. A significant population of women, experience mild, moderate or severe pain during menstruation. Dysmenorrhea may begin later in life after the onset often underline causative condition, Dysmenorrhea is common and in upto 20% of women may be severe enough to interfere with daily activities. Dysmenorrhea may be catogorised into two types as Primary and Secondary, Primary dysmenorrhea is defined as painful menses among womens with normal pelvic anatomy, frequently beginning during ovulatory cycles, frequently emerging with 6 to 12 months after menarche with no pathology or organic basis. Secondary dsymenorrhea is an menstrual pain associated with underline pathology and its onset might be years after menarche.

Menstruation is an important indicator of women's reproductive and endocrine health. It is a common gynecological disorder among young females. For many women, the symptoms of dysmenorrhea have significant impact on quality of life and reduces productivity of women. Fifty percentage(of females missed school or work atleast once due to pain associated menstruation. Unrelieved acute pain can affect the pulmonary, cardiac vascular, gastro intestinal endocrine and immune system. Chronic pain may suppress the immune function, cause depression, disability and anger. The prevalence of primary dysmenorrheal estimates ranges from 25 to 90% among women of reproductive age and 5-20% of female adolescents experience severe primary

dysmenorrhea that prevents them from participating in their usual activities. Studies from India reported the prevalence range between 50 to 87.8% . In the United State the economic burden of dysmenorrhea has been estimated to be 600 million work hours or 2 billion Dollar. In Japan, it has been reported that the total health care cause for females with no dysmenorrhea after adjusting for baseline characteristics.

Even though primary dysmenorrhea is not an life threatening condition, but it can cause a considerable burden on the quality of life of female adolescents or women. previous study showed that dysmenorrhea negatively impacts the affected women quality of life such as the relationship with a family members and friends, school or low performance in addition to social and recreational activities. It has been also reported that women with dysmenorrhea tend to have a higher sensitivity to pain in general even at time when they have no menstrual pain. Furthermore dysmenorrhea is deemed to have significant economic consequences. Hence the objective of the study was to ascertain the prevalence of dysmenorrhea along with menstrual symptoms in women.

## Review of Literature:

The study shows menstruation related problems in women and given counseling services and relevant information on possible treatment options. So, there is a need to emphasize on designing menstrual health programmes for women's. Dysmenorrhea is a leading cause of recurrent short term school absents in adolescent girls and a common problem in women of reproductive age. Risk factors for dysmenorrhea include nulliparity, heavy menstrual flow, depression. Empiric therapy can be initiated by typical history of painful menses and negative physical examination. NSAID are the initial therapy of choice in patients with preemotive primary dysmenorrhea (Sharma K , 2014)

Premenstrual syndrome is a group of psychological and physical symptoms which regularly occur during the luteal phase of the menstrual cycle and resolve by end of menstruation. The severe and predominantly psychological forms PMS is called Premenstrual dysphoric disorder. General population have shown that participation in regular exercise can improve some of the types of symptoms that is mood disturbance, fatigue, cognitive dysfunctions, bloating typically experienced by women. So exercise is an effective treatment for these conditions **(Kulkarni G.S, 2014)**

Management of menopausal symptoms in the form of non hormonal drug therapy and non pharmacological measures. They give recommendations that change lifestyle regular. A study of dysmenorrhea during menstruation in women here three most common symptoms present on both days, that is, day before and first day of menstruation were lethargy ,abdomen pain and tiredness (first), depression (second) and inability to concentrate in work (third). It can be mentioned that prevalence of dysmenorrhea and menstrual irregularity among young females is high. Working ability is reported to be affected by menstrual pain. It could be possible to improve menstrual discomforts management by including awareness programs. There was significant difference in pain intensity and pain duration yoga reduced severity and duration of Primary dysmenorrhea. The finding suggest that healthy poses are safe and simple treatment for Primary dysmenorrheal **(Woodard B, 2015)**

Menstrual problems particularly dysmenorrhea is common in girls. Teachers, family members, health educators and media play a very important role for educating the women regarding menstrual hygiene. It is a very important factor for general health of women. So this period is considered as child bearing age. The effect of physical activity on primary dysmenorrhea overall result of the study indicated that most of the women are faced by dysmenorrhea during menstrual cycle. .Primary dysmenorrhea refers to menstrual pain without underlying pathology, whereas secondary dysmenorrhea is menstrual pain associated

with underlying pathology. Endometriosis one of the main cause of secondary dysmenorrhea, induced dysmenorrhea, pelvic pain and infertility resulting in reduction of quality of life during reproductive age **(Falcone T, 2017)**

There was significant improvement in subject knowledge regarding PMS after educational session regarding CAM used to manage PMS. This includes diet, supplements, herbal, mind body intervention, manipulates body based method. The total knowledge score increased female awareness and practice about PMS. Menstruation is an important milestone for adolescent girls and menstrual problems. During menstruation, adolescent girls should use sanitary pads and should not use old cloths for menstrual hygiene purpose. From puberty to menopause, the average women will have a period once a month, which is the shedding of uterine lining in the form of blood. On average, a women will bleed for three to five day **(Agarwal SK, 2019)**

### **Objectives:**

- To assess the level of menstrual pain
- To assess the level of menstrual symptoms
- To identify the association between menstrual symptoms and level of pain.

### **Need for the study:**

Dysmenorrhea is a common problem among women mostly in the age group of 20-25 years. 90% of menstruating women experiences this disorder. A study was conducted to assess the prevalence rate and determinants of dysmenorrhea. Most of the women in India affected with dysmenorrhea. Dysmenorrhea affects of the physical, psychological and social status of females.

According to study conducted in India among women who reported dysmenorrhea, 31.67% and 8.86% were missing college and classes respectively. A study done in South India showed that Ibuprofen was taken by 80.95% students. The prevalence of dysmenorrhea was 84.9% about 11% had mild 62.3% had normal 25.8% had

severe dysmenorrhea. The most common associated symptoms were tiredness, acne, mood change ,abdomen pain.

The incidence of dysmenorrhea in women were reporting high (92%). In that 38% were reported missing classes due to dysmenorrhea. The peak incidence of primary dysmenorrhea occurs in the late adolescence period and 20-25 years of age group. Dysmenorrhea may be affected more than half of menstruating women. A survey was conducted in 113 patients in a family practice setting, the prevalence of dysmenorrhea was 29% to 44%. In that 59% of women with dysmenorrhea was affected by household activities, sports have been affected by 51%, class participation affected by 50%, social activities affected by 46% not doing homework by 34% .

The objective of the study was to determine the prevalence of primary dysmenorrhea among women in selected hospital Coimbatore.

## Methodology

Research methodology refers to the techniques used to structure a study and to gather and analyse information in a systematic fashion.

Methodology includes the steps, procedures and strategies for gathering and analyzing the data in the research investigation.

This deals with the research approach , research design , variables, settings, population , criteria for sample selection, sample size, sampling technique, development and description of tools, content validity, reliability, pilot study, data collection procedure and data analysis.

## Data collection procedure

The formal permission was obtained from the HR and Personal Recruitment Officer of **RAO HOSPITAL, R.S.Puram, Coimbatore** District to conduct the study with assurance to abide by the rules and regulations of the Hospital. The study was done for a period of three months from 13-02-2021 to 24-04-2021.The samples were selected by purposive sampling technique on the basis of inclusive criteria. Informed consent as taken from samples.

**Table: 1 Demographic variables**

		N=100	
Information		N	Percentage
Age	15-20	35	35%
	20-25	40	40%
	25-40	25	25%
Height	141-150 cm	35	35%
	151-160 cm	40	40%
	161-170 cm	25	25%
Weight	35-45 kg	25	25%
	45-60 kg	40	40%
	60-70 kg	25	25%
	>70 kg	10	10%
BMI	<18(Under weight)	20	20%
	Normal weight	20	20%
	Overweight	25	25%
	Obese	35	35%

<b>Education</b>	Higher secondary	10	10%
	Under graduate	25	25%
	Post graduate	05	05%
	Working women	60	60%
<b>Residence</b>	Day Scholars	65	65%
	Hostellers	35	35%
<b>Type of family</b>	Nuclear family	75	75%
	Joint family	25	25%
<b>Food habits</b>	Non Vegetarian	65	65%
	Vegetarian	35	35%
<b>Age at menarche</b>	7-11	35	35%
	12-25	60	60%
	>15	10	10%
<b>Family history of menstrual pain</b>	Yes	60	60%
	No	40	40%

Table 1 depicts the percentage distribution of demographic variables of women with respect to age, height, weight, BMI, education, residence, type of family, food habits, age at menarche and family history of menstrual pain. Most of the participants among hundred women 40% are in the category 20-25 years, 35% belongs to 15-20 years and 25% belongs to 25-40 years, According to BMI under weight(20%), normal weight(20%), over weight(25%), obese(35%), Regarding the education 10% are higher secondary students,

under graduate (25%), post graduate (5%), working women(60%). Regarding the residence 65% day scholars, 35% hostellers, 75% belongs to nuclear family, 25% belongs to joint family, According to food habits 65% belongs to non vegetarian, 35% vegetarian, Regarding the age at menarche 35% are aged at between 7-11 years, 60% are aged at between 12-25 years, aged above 15 years 10%, concerning the family history 60% have family history of menstrual pain.

**Table 2: Menstrual symptoms**

N=100

Menstrual symptoms	Dysmenorrheic(n)	Percentage
<b>Back pain</b>	63	63%
<b>Abdomen pain</b>	70	70%
<b>Headaches</b>	20	20%
<b>General pain</b>	35	35%
<b>Leg cramps/cramps</b>	45	45%
<b>Painful/tender breasts</b>	25	25%
<b>Acne</b>	63	63%
<b>Tiredness</b>	68	68%
<b>Anger/short tempered/irritability</b>	55	55%
<b>Mood swings/emotional disturbance</b>	65	65%
<b>Insomnia</b>	35	35%
<b>Altered appetite</b>	40	40%
<b>Nausea/vomiting</b>	60	60%
<b>Diarrhoea</b>	25	25%

Table 2 depicts the percentage distribution of menstrual symptoms among women in the age group 12-40 years. The table shows 63% of women are affected with back pain, 70% affected with abdomen pain, 20% affected with headache, 35% affected with general pain, 45% affected with leg cramps, 25% affected with painful or tender breasts, 63% affected with acne,

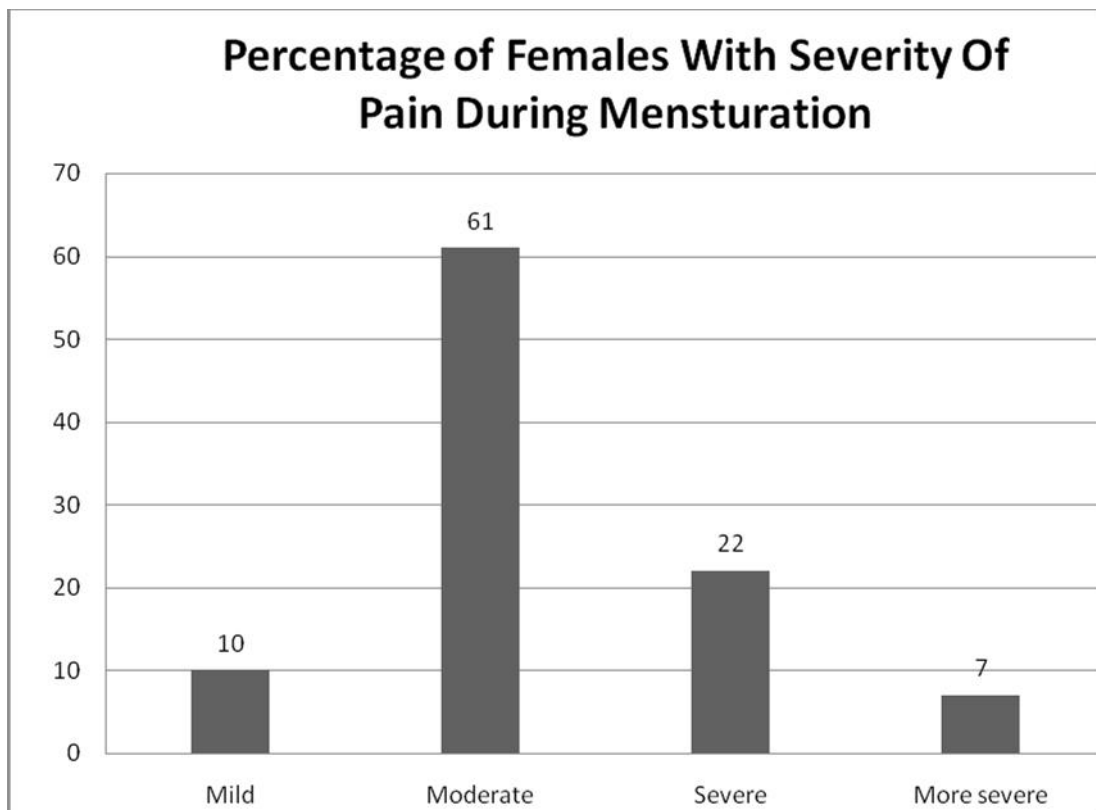
68% affected with tiredness, 55% affected with anger or short tempered or irritability, 65% affected with mood swings or emotional disturbance, 35% affected with insomnia, 40% affected with altered appetite, 60% affected with nausea or vomiting, 25% affected with diarrhoea. Among 100 samples 70% of the women are affected with abdomen pain.

**Table 3: Assessing the level of menstrual pain** N=100

	Number of cases(n)	Percentage
<b>Grade 1 (Mild)</b>	10	10%
<b>Grade 2 (Moderate)</b>	61	61%
<b>Grade 3 (Severe)</b>	22	22%
<b>Grade 4 ( More severe)</b>	7	7%
<b>Total</b>	100	100%

Table 3 depicts the level of menstrual pain among women. Mild dysmenorrhea was seen in 10% of cases, moderate dysmenorrhea was seen in 61%

of cases, 22% presented with severe and 7% presented with more severe dysmenorrhea.



**Figure 1: Assessing the level of menstrual pain.**



**Table 4: Association between selected demographic variables and level of pain among women**

S.No	Variables	Mild	Moderate	Severe	More severe	Calculated $\chi^2$ value	Tabulated $\chi^2$ value
1	<b>Age In Years</b>						
	a) 15-20 (30)	5	10	8	7		
	b) 20-25 (25)	2	8	10	5		
2	c) 25-40 (20)	10	5	5			
	<b>Educational Status</b>						
	a) Higher secondary (8)	0	1	6	1	>1	5.99
b) Under graduate (18)	3	10	5	-			
c) Post graduate (3)	1	2	-	-			
3	<b>Marital Status</b>						
	a) Married (35)	20	15	-	-		
	b) Unmarried (40)	-	10	25	5		

Table 4 shows that there is association between age group and level of pain among women.

**Recommendations**

Hot water bottle use has been found to help a lot in dysmenorrhea, Formal as well as informal channels of communication, such as mothers and peers, need to be emphasized for the delivery of such information.

Further studies are needed to explore more at the qualitative aspects of the effect on the daily activities around menstruation, particularly school attendance.

Similar study can be conducted for a large group on a long term basis.

Comparative study can be conducted by using various other complementary and alternative therapies to find out the effectiveness in reducing menstrual pain.

**Conclusion**

Dysmenorrhea in women is a major problem and needs to be effectively managed. In this present study prevalence right off dysmenorrhea was 75 % and 25% suffered from severe dysmenorrhea. 12% of the cases was seen from irritability, underweight 15%, abdomen pain 70%, nausea and vomiting 60%, insomnia 25%, acne 35%, tiredness and cramps 63%. Majority of cases applied heat, abdominal massage, ayurvedic treatment and took paracetamol as a treatment for dysmenorrhea.

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