PREVALENCE AND MANAGEMENT OF DYSMENNORHEA AMONG THE ADOLESCENTS OF SELECTED SCHOOLS OF REHAN, DISTT KANGRA (HP)

Priya S[1], Gupta NL[2], Chauhan HS[3]

[1]MPH Scholar, Center for Public Health & Healthcare Administration, Eternal University, Baru Sahib, HP, India

[2]Associate Professor &HoD, Psychology Department, Eternal University, Baru Sahib, HP, India

[3]Professor cum Head of Department, Center for Public Health & Healthcare Administration, Eternal University, Baru Sahib, HP, India

ABSTRACT

Background: Dysmenorrhea is considered as the commonest of all gynaecological problemsoccurring in females and is defined as a cramping pain in the lower abdomen just before or during menstruation.[1]**Aim:** The study aimed to assess the prevalence of Dysmennorhea.**Objectives**:To assess the prevalence of Dysmennorhea among the adolescents of selected schools of Rehan, Distt Kangra (HP); To know the effect of Dysmennorheaon the lives of adolescents and their managing behaviours; To determine association between socio-demographic factors and Dysmennorhea.**Methods & materials**: This was a cross-sectional study conducted among112 females aged 12-18 years. Standardized Self-reporting questionnaires were used to obtain the relevant data. Data was analysed using SPSS version 22. **Results**: The study shows that 78.6% of the respondents suffered Dysmennorhea during menstruation. The most common symptoms faced were tiredness, tenderness of breasts andpain in the back.It also revealedthat 29.5% of respondents faced loss of appetite, 37.5% suffered with nausea, 17.0% suffered with constipation, 40.2% had diarrhoea and 32.1 % suffered increasedfrequency of urination.It showed that 27.7% ofadolescents consulted doctors or took medicines for Dysmennorhea, 28.6% used hot applications like hot water bottles, 19.6% took massage and 17.9% relied on bed rest for relief from Dysmennorhea. **Conclusion:**The lack of knowledge to seek and use medical advice & care were found to be the major barriers by dysmenorrhic females and this aspect of female health needs to be explored. It is important that health education on menstruation & menstrual health is not given importance and has not been accepted as a natural phenomenon in India.

Keywords: Dysmennorhea; Adolescent; Menstruation

INTRODUCTION

The world is home to the 1.2 billion individuals aged 10-19 years generally known as the phase of Adolescence. Adolescence is a phase during which major physical and psychological changes take place in children, along with changes in their social perceptions and expectations.The prevalence of dysmenorrhea is very high and at least 50% of the women experience this problem throughout their reproductive years. Painful menstruation also mentioned by many as primary dysmenorrhea is characterized by spasmodic and gnawing pain and is worse on I, II, III days of menses.Studies have shown that the daily routines of the adolescent girls were affected

due to prolonged bed rest, missed school activities, disturbed sleep and decreased appetite, not able to attend classes, and some remained abstained from work. Thus emphasizing a need for designing menstrual health program for adolescent girls.[2]

Primary dysmenorrhea is one of the commonest menstrual problems among adolescent girls which affects their daily activities and academic activities. Menstruation is the periodic discharge of blood, mucus and epithelial cells from uterus which occurs every month. This is an important landmark in the process of growth and maturation and prepares them for motherhood. Even though menstruation is a physiological process, many females face various types of menstrual problems among which dysmenorrhea is the commonest one. Primary dysmenorrhea is very common among adolescent girls and around 60 – 90% of them suffer from this condition. It is a group of symptoms which includes either sharp, intermittent pain, or dull aching pain, usually in pelvic region or lower abdomen. Sometime dysmenorrhea is associated with headache, nausea and vomiting, diarrhoea or constipation, fainting, premenstrual symptoms such as tender breasts and swollen abdomen, which may continue throughout the period. For most women pain usually starts shortly before or during their menstrual period, peak after 24 hours, and subsides after 2-3 days. [4]

NEED FOR THE STUDY

Adolescence is the period considered as the transition from childhood to adulthood and is classically characterized by spurt in physical, endocrinal, emotional, and mental growth. Since females are the direct reproducers of future generations, the health of adolescent girls influences the health of the future population. The prevalence of dysmenorrhoea among adolescent females ranges from 60 to 83 percent. Many adolescents reported various problems like limitations on daily activities, missing school, sporting events, and other social activities, However, as less as only 15 percent of females seek medical advice fordysmennorhea.[3] Hence, preventing and managing dysmenorrhea is a crucial aspect of adolescent reproductive health. Providing health education is an ideal and most effective method to bring about awareness regarding the management of dysmenorrhea to improve the reproductive health of adolescents.[4]

OBJECTIVES

- To assess the prevalence of Dysmennorheaamong the adolescents of selected schools of Rehan, Distt Kangra (HP)
- To know the effect of Dysmennorheaon the lives of adolescents and their managing behaviours.
- To determine association between socio-demographic factors and Dysmennorhea.

METHODOLOGY

Study Design- A cross-sectional descriptive design was adopted to carry out the study.

Study population- The study population constituted of adolescents of selected schools of Rehan, Distt Kangra (HP)

Sample size = 112(sample size was calculated using finite population formula)

Sampling technique- Simple Random Sampling technique was used.

Population of the study / sample- The study sample constituted girls of classes 7^{th}, 8^{th}, 9^{th},10^{th} 11^{th},12^{th} between the age group of 12 to 18 years.
Data Collection Tool- Data was collected by using structured survey questionnaire. The questionnaire was prepared in an easy language for the better understanding of the respondents.
Validity and Reliability-Validation and reliability was done with the reference of research papers. Expert opinion was taken whenever and wherever needed.
Study Period- The study period was from June 2017 to July 2017.

Ethical consideration- The research was conducted after taking approval from the Institutional Review Committee (IRC) of Eternal University. The purpose of the study was explained to the respondents and verbal consent were taken from respondents. Privacy of the information was maintained and used for research objective only.

Following descriptive and inferential statistics were performed for data analyses-

- Data analysis software SPSS version 22 was used for data entry, processing and analysis.
- Frequencies and percentages of different variables to check the prevalence of Dysmennorhea.
- Chi-square test to examine significant statistics of Dysmennorheawith socio-demographic variables.

RESULTS

The table below describes the demographic characteristics of the study population i.e; Age, year of study, family type, family history of DysmennorheaandDietary pattern.

Table 1: Socio – Demographic profile of the respondents

Demographic factors	**Frequency**	**Percent%**
Age		
12-14	39	34.8
15-18	73	65.2
Total	112	100.0
Year of study		
Class 7^{th}	2	1.8
Class 8^{th}	20	17.9
Class 9^{th}	18	16.1
Class 10^{th}	34	30.4
Class 11^{th} -12^{th}	38	33.9
Total	112	100.0
Family history of Dysmennorhea		

Yes	90	80.4
No	22	19.6
Total	112	100.0
Dietary pattern		
Vegetarian	56	50
Mixed diet	56	50
Total	112	100

The table above shows that 65.2% respondents were in the age group 15-18 years and 34.8% were in the age group 12-14 years.80.4% of the population had the family history of Dysmennorhea. Half of the respondents were vegetarians and the rest were taking mixed diet.

Table 2: Prevalence of Dysmennorhea

Dysmennorhea	**Frequency**	**Percent**
Yes	88	78.6
No	24	21.4
Total	112	100.0

Percent prevalence = 78.6%

Table 3: Profile of the respondents for Physical & Gastro-intestinal symptoms

Physical symptoms	**Frequency**	**Percent**
Yes	100	89.3
No	12	10.7
GI symptoms	**Frequency**	**Percent**
Yes	104	92.9
No	8	7.1

Table 4: Menstruation profile of the respondents

Age of menarche	**Frequency**	**Percent**
<12	38	33.9
12-14	58	51.8
15-18	16	13.3
Total	112	100.0
Day of menstruation with severe pain	**Frequency**	**Percent**
A day before the onset	34	30.4
The first day	48	42.9
The second day	28	25.0
Other days	2	1.8
Total	112	100.0
Duration of pain in hours	**Frequency**	**Percent**
<1	5	4.5
1-4	43	38.4
5-8	44	39.3

>8	20	17.9
Total	112	100.0

The table above represents that 51.8% of respondents had menarche at the age of 12-14 years, 42.9% had menstrual cycle of 21-28 days, 44.6%had menstruation for 3-4 days, 42.9% used 4-5 pads a day during menstruation, 42.9% had severe Dysmennorhea on the first day of menstruation,maximum duration of pain was 5-8 hours faced by 39.3% of the respondents.

Table 5: Profile for the Effects of Dysmennorhea & menstruation on daily life respondents

Effect on daily activities	**Frequency**	**Percent**
Yes	84	75.0
No	28	25.0
Total	112	100.0
Skipping meals	**Frequency**	**Percent**
Yes	27	24.1
No	85	75.9
Total	112	100.0
Psychological disturbances	**Frequency**	**Percent**
Depressive mood	6	5.4
Mood swings	23	20.5
Irritability	21	18.8
Inability to concentrate	33	29.5
Nervousness or fear of staining	17	15.2
All of above	12	10.7
Total	112	100.0

The table above represents that 75% of respondents had effect on their daily activities,67% had effects on their sleep, 41.1% felt weak & tired, 17.9% missed school, 12.5% complained of lacking concentration in their studies, 24.1% skipped their meals, 20.5% had mood swings, 18.8 % felt irritated, 15.2% had nervousness or fear of staining during menstruation.

Table 6: Profile of respondents for managing the problem of Dysmennorhea

Measures taken to get relief from pain		
Medicines / consult Doctor	**Frequency**	**Percent**
Yes	31	27.7
No	81	72.3
Total	112	100.0
Hot applications	**Frequency**	**Percent**
Yes	32	28.6
No	80	71.4
Total	112	100.0
Massage	**Frequency**	**Percent**
Yes	22	19.6
No	90	80.4

Total	112	100.0
Bed rest	**Frequency**	**Percent**
Yes	20	17.9
No	92	82.1
Total	112	100.0
Action taken for Dysmennorhea during school hours		
Informed and took teacher help	16	14.3
Informed and took friend help	2	1.8
Self-manage	34	30.4
Preferred permission to go home	21	18.8
Other measures(cultural practices)	39	34.8
Total	112	100.0

The table above represents that 27.7% of respondents consulted doctors or took medicines for Dysmennorhea, 28.6% used hot applications like hot water bottles, 19.6% took massage and 17.9% relied on bed rest for relief from Dysmennorhea. During the Dysmennorhea in school hours, around 14.3% informed teacher and seek help for bearing with pain, 30.4% managed the situation by self, 18.8% took leave from school to take rest at home and 34.8% used other measures like using self-made ayurvedic packs, balms, eating their traditionally cooked meals specifically to manage Dysmennorhea.

Table 7: Association between Dysmennorhea and Socio-Demographic variables

Socio-Demographic variables	Chi square	Degree of freedom	p-value
Age	.097[a]	1	.756
Year of study	17.606[a]	4	.001
Family type	1.429[a]	2	.489
Family history of Dysmennorhea	17.834[a]	1	.001
Dietary pattern	7.636[a]	1	.006

***Statistically significant at p<0.05, ** Statistically highly significant at p<0.001**

The Table above shows that Dysmennorhea is significantly associated with year of study (p= 0.001), family history of Dysmennorhea(p= 0.001) and dietary-pattern (p=0.006) whereas no statistically significant relationship between Dysmennorhea and other factors (Age and family type)was found.

DISCUSSION

Dysmennorhea and associated adverse effects, particularly in adolescent girls are very common now a days. In this study Dysmennorhea was considered as the pain in the lower abdominal region during days of menstruation. Reasons understood by the study for Dysmennorhea were family history of Dysmennorhea and dietary pattern of the respondents. The prevalence of Dysmennorheawas found to be 78.6% among the study population which showed similarity in prevalence (71.96%) to the study among adolescent girls of Gwalior[5].Similar findings were reported by George and Bhaduri (87.87%)[6], Mckay and Diem (67%)[7],Andersch and Milson

(80%)[8], Harlow and Park (71.6%)[9].Comparatively lower incidences were reported by Nag (33.84%)[10].

Demographic profile of the study population

Demographic characteristics showed that 65.2% respondents were in the age group 15-18 years and 34.8% were in the age group 12-14 years.55.4% of the respondents were from nuclear families, 28.6% from joint families and 16.1% from extended families. 80.4% of the population had the family history of Dysmennorhea. Half of the respondents were vegetarians and the rest were taking mixed diet. The study reflects the strong significant association of Dysmennorhea with the year of study (p= 0.001), family history of Dysmennorhea (p= 0.001) and dietary-pattern (p=0.006) whereas no statistically significant relationship between Dysmennorhea and other factors (Age and family type) was found.

Health profile of the study population

It was revealed that physical symptoms were faced by 89.3% respondents. About 37.5% suffered tiredness, 16.1% felt fullness in stomach,23.2% had tenderness of breasts**,** 21.4% suffered pain in the back, 29.5% faced loss of appetite, 37.5% experienced nausea, 17.0% had gone through constipation, 40.2% had diarrhoea, 32.1 % had increased frequency of urination.51.8% of respondents had menarche at the age of 12-14 years, 42.9% had menstrual cycle of 21-28 days, 44.6%had menstruation for 3-4 days, 42.9% used 4-5 pads a day during menstruation, 42.9% had severe Dysmennorhea on the first day of menstruation, maximum duration of pain was 5-8 hours faced by 39.3% of the respondents.

Profile for the Effects of Dysmennorhea on daily life respondents

About 75% of respondents had effect on their daily activities,67% faced effects on their sleep, 41.1% felt weak & tired, 17.9% missed school and 12.5% complained of lacking concentration in their studies,24.1% skipped their meals, 20.5% had mood swings, 18.8 % felt irritated, 15.2% had nervousness or fear of staining due to menstruation.

Profile of respondents for managing the problem of Dysmennorhea

It was sorted from the study that 27.7% of respondents consulted doctors or took medicines for Dysmennorhea, 28.6% used hot applications like hot water bottles, 19.6% took massage and 17.9% relied on bed rest for relief from Dysmennorhea. During the Dysmennorhea in school hours, around 14.3% informed teacher and seek help for bearing with pain, 30.4% managed the situation by self, 18.8% took leave from school to take rest at home and 34.8% used other measures like using self-made ayurvedic packs, balms, eating their traditionally cooked meals specifically to manage Dysmennorhea.

LIMITATION OF THE STUDY

1. This study only involved the girls of selected schools of Rehan, Distt- Kangra. Further, the community population was not involved.

3. The sample of the study was small viewing the large population of adolescents. So, future studies need to be conducted with a larger sample size so that reliable inferences can be drawn and generalized.

CONCLUSIONS & RECOMMENDATIONS

1. The study found prevalence of Dysmennorhea was 78.6% among the adolescent population of selected schools of Rehan, Distt-Kangra. The present study concluded that Dysmennorhea is an emerging public health concern among adolescents in India
2. Integrated educational and counselling programs focussed on the adolescent age group should be designed.

REFERENCES

1. Omidvar S, Bakouei F, Amiri FN, Begum K. Primary dysmenorrhea and menstrual symptoms in Indian female students: prevalence, impact and management. Global journal of health science. 2016 Aug;8(8):135.

2.Karthika S. A study to assess the effectiveness of acupressure in reducing menstrual pain among adolescent girls with primary dysmenorrhea studying in selected. International journal of research and engineering. 2014 Mar 31;1(1):18-21.

3. George NS, Priyadarshini S, Shetty S. Dysmenorrhoea among adolescent girls-characteristics and symptoms experienced during menstruation. Nitte University Journal of Health Science. 2014 Sep 1;4(3):45.

4.Akshara Mathew , Delna Mary Varghese , Meemo V Shaju , Neethu Joseph , AnupamaTamrakar - Dysmenorrhea among Adolescent Girls in Selected Schools at Mangalore

5. Agarwal AK, Agarwal A. A study of dysmenorrhea during menstruation in adolescent girls. Indian journal of community medicine: official publication of Indian Association of Preventive & Social Medicine. 2010 Jan;35(1):159.

6. George A, Bhaduri A. Dysmenorrhea among adolescent girls – symptoms experienced during menstruation. Health Promotion Educ. 2002;17:4.

7. McKay L, Diem E. Concerns of adolescent girls. J PediatrNurs. 1995;10:19–27

8. Sundell G, Milsom I, Andersch B. Factors influencing the prevalence and severity of dysmenorrhea in young women. Br J ObstetGynaecol. 1990;97:588–94.

9. Harlow SD, Park M. A longitudinal study of risk factors for the occurrence, duration and severity of menstrual cramps in a cohort of college women. Br J ObstetGynaecol. 1996;103:1134–42.

10. Nag RM. Adolescent in India. Calcutta: Medical Allied Agency; 1982. pp. 18–26