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Original Research Article

Knowledge and Level of Distress Regarding Primary Dysmenorrhea among Adolescent Girls

Gopal Singh Charan[1], Akashpreet Kaur[2], Ujala Joshi[3], Pooja Joshi[4]

[1]Associate Professor, [2,3,4]Assistant Professor SGRD College of Nursing, Amritsar

Corresponding Author: Gopal Singh Charan

ABSTRACT

Background: Dysmenorrhea is the most common gynecological problem among adolescents girls.
Objective: The objective of the study was to assess the knowledge and level of distress regarding primary dysmenorrhea among adolescent girls, Amritsar. Material and methods: A cross-sectional study was done to assess the knowledge and level of distress regarding primary dysmenorrhea among adolescent girls at selected schools, Amritsar. 180 samples were enrolled using purposive sampling technique. Socio-demographic variables and gynecological factors of menstruation were assessed to collect data and level of distress was assessed by menstrual distress questionnaire (MMDQ).
Results: The study results revealed that most of the adolescent girls i.e. 79 (43.9%) had good knowledge, 78(43.3%) with average knowledge and 23(12.8%) had excellent knowledge. The level of distress was found to be mild among 168(93.3%) adolescent girls and only 12(6.7%) had moderate level of distress. There was a highly significant association (*p<0.005)* between the levels of knowledge on primary dysmenorrhea and socio-demographic variables i-e age, class, diet, religion, mother's education, Type of family were found to be highly significant. Both significant and highly significant association was also found between domain wise level of distress and related factors on primary dysmenorrhea with some socio-demographic variables of adolescent girls

Keywords: dysmenorrhea, adolescent girls, knowledge, distress

INTRODUCTION

Adolescence is a transitional stage of development between childhood and adulthood. Inception of puberty declares the attainment of adolescence. During pubertal development hormonal, cognitive, psychological and physical changes occur simultaneously. Girls face it entirely differently. In Girls their reproductive system changes , they become hairy, voice shrinks, lots of pimples on face and above all there is a onset of menstruation and it brings with it menstrual cramps; which is medically known as dysmenorrhea. [1]

Dysmenorrhea is a painful/cramping sensation in the lower abdomen often accompanied by other biological symptoms including dizziness, fatigue, sweating, backache, headache, nausea, vomiting, and diarrhea all occurring just before or during the menstruation. [2] Most females experience certain degree of pain and distress during their menstruation period. Dysmenorrhea may be categorized into two types as primary and secondary. Primary dysmenorrhea is defined as painful menses among females with normal pelvic anatomy, frequently beginning during adolescence. It is observed only in ovulatory cycles, frequently emerging within 6 to 12 months after menarche with no pathology or organic basis. [3] Lower abdominal or pelvic pain often occurs for eight to 72 hours and is usually associated with the onset of

menstrual flow. Secondary dysmenorrhea is a menstrual pain associated with underlying pathology and its onset might be years after menarche. [4]

Primary dysmenorrhea is extremely common, especially among adolescents. As many as 90% of adolescent females and above 50% of menstruating women worldwide report suffering from it, with 10-20% of them describing their hurt as severe and distressing. [5] Dysmenorrhea is a common gynecological complaint, affecting the majority of women of reproductive age with 2–29% is having severe pain. [6] As a debilitating condition, it has a major impact on women's health-related quality of life, social and occupational roles, resulting in significant work and school absences. [7,8] Data from various studies conducted earlier show that absenteeism from school due to primary dysmenorrhea is 34-50%. [9,10]

The prevalence of dysmenorrhea reported in the literature varies substantially. A greater prevalence was generally observed in young women, with estimates ranging from 67% to 90% for those aged 17–24 years. [11,12] A recent large Australian study of senior high school girls found that a higher proportion, 93%, of teenagers reported menstrual pain. Severe pain sufficient limit daily activities are considerably less common, affecting approximately 7%–15% of women. [13]

Many girls describe dysmenorrhea as a "monthly dread" because their experience with it is worse. [14] Different treatment like pharmacological and non-pharmacological, herbal, dietary therapies, yoga, meditation, and acupuncture have been tried to decrease the effects of dysmenorrhea. [15] The non-pharmacological treatments in large of studies have shown effectiveness of interventions on dysmenorrhea. Some of the natural remedies are hot water bottle, herbal tea, coffee, almonds, some positions, ginger preparation, parsley, beetroot, coriander, etc. Consumption of mint tea helps in alleviating the associated pain of dysmenorrhea. Cinnamon is one of the oldest spices known to man. This spice also has medicinal properties which include pain relieving during menstrual cramps. [16]

The god of heaven, who ceratodus, has given us the simple things of nature for our healing, so we should help our self with those natural remedies and try to bring back the sunshine into our life. [17]

MATERIALS AND METHODS

The cross-sectional study was adopted to assess the knowledge and level of distress regarding primary dysmenorrhea among adolescent girls. The study was conducted in selected schools at Amritsar. The researcher recruited 180 adolescent girls through purposive sampling with inclusion and exclusion criteria. The research instrument was divided into two parts i-e part I: Information data sheet of adolescent girls regarding primary dysmenorrhea (20 items), part II A: The level of knowledge was divided into three categories: average, good and excellent. There were total 30 items. Further, it has been categories level of knowledge i.e. excellent, good and average. Research tool part II B was (MMDQ) MOOS menstrual distress questionnaire with 42 items. It was five point likert's scale. The criterion measure used in the study was extent of the score on level of menstrual distress. The maximum obtainable scores were 168 and divided into five categories: No, mild, moderate, severe and very severe. The Tool was prepared by extensive review of literature and validated by experts of gynecology. The tools reliability was calculated by cronbach alpha i.e. 0.78 and 0.89. Ethical permission was obtained from ethical and research committee of institution. After gaining approval, permission was taken from the principal of selected schools to conduct research study. Confidentiality and anonymity were maintained during and after data collection. The data were analyzed using SPSS version 17. Descriptive statistics was used to determine mean and percentages. The

inferential statistics chi-square test was used to find out association.

RESULTS

Table 1: Socio-demographic Profile of adolescents girls. N=180

Sr. No.	Variables	f	%
1.	**Age (in years)**		
	14-16	56	31.1
	16-18	63	35.0
	18-20	61	33.9
	Mean age(in years) 16.84±2.044		
2.	**Class**		
	10th	42	23.3
	11th	46	25.6
	12th	92	52.1
3.	**Diet**		
	Vegetarian	132	73.3
	Non-vegetarian	48	26.7
4.	**Religion**		
	Sikh	60	33.3
	Hindu	43	23.9
	Christian	41	22.8
	Muslim	36	20.0
5.	**Mother's education**		
	Graduate	96	53.3
	Secondary	50	27.8
	Middle	18	10.0
	Illiterate	16	8.9
6.	**Father's occupation**		
	Govt. Job	114	63.3
	Pvt. Job	66	36.7
7.	**Types of family**		
	Nuclear	108	60.0
	Joint	72	40.0
8.	**Family income (Rs./Month)**		
	<10000	16	8.9
	10000-20000	88	48.9
	20000-30000	60	33.3
	>30000	16	8.9
	Mean family income (Rs/month) 19866.67±6793.359		
9.	**Habitat**		
	Rural	124	68.9
	Urban	56	31.1

Table 1 depicts that majority of adolescent girls were found in the age group 16-18years followed by 61(33.9%) in 18-20 years and 56(31.1%) in 14-16years of age. Regarding class, more than half of the girls 92(52.1%) were in 12^{th} class and one fourth of girls 46(25.6%), 42(23.3%) in 11^{th} and 10^{th}. Slightly less than third fourth 132(73.3%) adolescent girls were vegetarian and almost one-fourth 48(26.7%) were non-vegetarian. According to religion, 60(33.3%) were Sikh, 43(23.9%) Hindu, 41(22.8%) Christian and 36(20%) were Muslim. Regarding mothers education of adolescent girls, 96(53.3%) were graduate, 50(27.8%) belongs to secondary education followed by 18(10%), 16(8.9%) with middle and remaining 16(8.9%) were found to be illiterate. Regarding father's occupation, majority of fathers 114(63.3%) were in Govt job and only 66(36.7%) were in pvt job. According to type of family, majority of the adolescent girls 108(60%) belong to nuclear family and 72(40%) lived in joint family. According to family income, nearly half of the adolescent girls 88(48.9%) had family income 10000-20000 followed by 60(33.3%) with 20000-30000 and 16(8.9%) with more than 30000. Regarding the habitat, most of the girls 124(68.9%) belong to rural and 56(31.1%) in urban.

Table 2.depicts the gynecological factors of menstruation. Out of 180 adolescent girls mean age of menarche was 12.37±.871. More than half of the adolescent girls 103(57.2%) had irregular menstrual cycle and 77(42.8%) had a regular cycle. Nearly half of the girls 76(42.2%) exhibit pain for four days, followed by 48(26%) for three days, 38 (21.1%) for only one day,18 (10%) had pain throughout menstruation. Regarding duration of flow,63(35%) were found for 2-3 days, 54(30%) for 4-5 days, 36(20%) for 6-7 days, remaining 27(15%) had more than 7 days of menstrual flow. According to the interval of menstruation, 77(42.8%) had interval of 27-29days, 54(30%) had above 30 days, 27(15%) were found to be irregular and 22(12.2%) had interval of 24-26days. Majority of the adolescent girls 153(85%) used measures to control dysmenorrhea and 27(15%) did not take any measure. Regarding name of measures , 105(58.3%) used painkillers to control dysmenorrhea followed by 30(16.7%), 18(10%) were using hot and cold application. 122(67.8%) adolescent girls had associated symptoms with dysmenorrhea, in which 68(37.8%) complaint of a headache, and 27(15%) girls complains of both vomiting and weakness in lower limbs. Regarding absenteeism from school, 158(87.8%) get absent. Among 158, 63(35%) girls get absent for one day in a month followed by 47(26.1%) for two days, 30(16.7%) for more than two days, 18(10%) for once in every two months and

22(12.2%) were found regular going to school.

Table 2: Gynecological factors of menstruation among adolescents girls. N=180

Sr. No.	Factors of menstruation	f	%
1.	Age at menarche		
	11	27	15.0
	12	79	43.9
	13	54	30.0
	14	20	11.1
	Mean age = 12.37±.871		
2.	Regular monthly menstrual cycle		
	Yes	77	42.8
	No	103	57.2
3.	Pain during menstruation		
	One day	38	21.1
	Two days	76	42.2
	Three dyas	48	26.7
	Throughout the menstruation	18	10.0
4.	Duration of flow		
	2-3 days	63	35.0
	4-5 days	54	30.0
	6-7 days	36	20.0
	more than 7 days	27	15.0
	Mean days = 4.80±1.865		
5.	Interval of menstruation		
	24-26 days	22	12.2
	27-29 days	77	42.8
	30 or above	54	30.0
	Irregular	27	15.0
6.	Used measures to control dysmenorrhoea		
	Yes	153	85.0
	No	27	15.0
7.	If Yes, name of measure		
	Hot application	30	16.7
	Cold application	18	10.0
	painkiller tablet	105	58.3
	n/a	27	15.0
8.	Associated symptoms with dysmenorrhoea		
	Yes	122	67.8
	No	58	32.2
9.	Name of Associated symptoms with dysmenorrhoea		
	Vomiting	27	15.0
	Headache	68	37.8
	Weakness in lower limbs	27	15.0
	n/a	58	32.2
10.	School absenteeism due to dysmenorrhoea		
	Yes	158	87.8
	No	22	12.2
11.	School leave due to dysmenorrhoea		
	One day in a month	63	35.0
	Two days in a month	47	26.1
	More than two days in a month	30	16.7
	Once in every two months	18	10.0
	n/a	22	12.2

N.B. n/a –Not applicable,

Table 3: Level of knowledge on dysmenorrhea among adolescents girls. N=180

Sr. No.	Level of Knowledge	f	%	Mean SD
	Average	78	43.3	16.88±5.777
	Good	79	43.9	
	Excellent	23	12.8	

Table 3.depicts the most of the adolescent girls 79 (43.9%) had good knowledge followed by 78(43.3%) average knowledge and 23(12.8%) had excellent knowledge.

Table 4: Level of distress in primary dysmenorrhea among adolescents girls. N=180

Sr. No.	Level of Distress	f	%	Mean SD
1.	Mild	168	93.3	35.3222±17.12480
2.	Moderate	12	6.7	

Table 4.shows that 168(93.3%) had mild level of distress and only 12(6.7%) had moderate level of distress. Mean SD found to be 35.3222±17.12480

Table 5. The domain wise Level of distress in primary dysmenorrhea among adolescents girls. N=180

Sr. No.	Domains of distress	Level of distress in primary dysmenorrhea								Mean SD
		No		Mild		Moderate		Severe		
		f	%	f	%	f	%	f	%	
	Pain	00	00.0	119	66.1	51	28.3	10	5.6	10.08±3.89
	Water retention	00	00.0	173	96.1	07	03.9	00	0.0	3.07±1.72
	Autonomic reaction	81	45.0	098	54.4	00	00.0	00	0.0	1.09±1.14
	Control	26	14.4	154	85.6	00	00.0	00	0.0	2.96±2.15
	Negative affect	11	06.1	157	87.2	00	00.0	00	0.0	6.48±3.50
	Impaired communication	22	12.2	158	87.8	00	00.0	00	0.0	4.38±2.38
	Behaviour change	33	18.3	133	73.9	14	07.8	00	0.0	4.72±3.39

Table 5 depicts the domain wise level of distress in primary dysmenorrhea among adolescent girls. Majority of the adolescent girls were found having mild level of distress in all domains like pain 119(66.1), water retention 173(96.1), autonomic reaction 98(54.4%), control 154(85.6%), negative affect 157(87.2), impaired communication 158(87.8%) behavior change133(73.9%) and moderate level of distress found in three domains i-e pain 51(28.3%), water retention 7(3.9) and behavior change14(7.8), none of found in severe level of distress except pain i.e.10 (5.6%).

Table 6: Association between level of knowledge on primary dysmenorrhea and socio-demographic variables N=180

Sr. No.	Socio-demographic variables	Level of Knowledge			X^2value	df	p-value
		Average	Good	Excellent			
1.	Age (in years)						
	14-16	20	36	0			
	16-18	40	23	0	62.021	4	.000**
	18-20	18	20	23			
	14-16	20	36	0			
2.	Class						
	10th	14	28	0			
	11th	22	24	0	33.414	4	.000**
	12th	42	27	23			
3.	Diet						
	Vegetarian	55	68	9	20.636	2	.000**
	Non-vegetarian	23	11	14			
4.	Religion						
	Sikh	32	28	0			
	Hindu	20	23	0	41.198	6	.000**
	Christian	17	10	14			
	Muslim	9	18	9			
5.	Parent Education						
	Graduate	52	44	0			
	Secondary	17	19	14	41.382	6	.000**
	Middle	9	5	4			
	Illiterate	0	11	5			
6.	Parent occupation						
	Govt. Job	53	51	10	4.671	2	.097NS
	Pvt. Job	25	28	13			
7.	Types of family						
	Nuclear	35	56	17	13.194	2	.001**
	Joint	43	23	6			
8.	Family income (Rs./Month)						
	<10000	2	12	2			
	10000-20000	41	36	11	11.804	6	.066NS
	20000-30000	25	25	10			
	>30000	10	6	0			
9.	Habitat						
	Rural	49	60	15	3.322	2	.190NS
	Urban	29	19	8			

*NB- * Highly significant, NS=Non-significant, df=degree of freedom*

Table 6: depicts association between level of knowledge on primary dysmenorrhea and socio-demographic variables. Age, class, diet, religion, mother's education, type of family were found to be highly significant (*p<0.005)*

Table 7: Association between level of knowledge on primary dysmenorrhoea and related factors among adolescent girls N=180

Sr. No.	Related factors	Level of Knowledge			χ^2value	df	p-value
		Average	Good	Excellent			
1.	Age of menarche (in years)						
	11	8	16	3			
	12	34	32	13	5.064	6	.536^{NS}
	13	27	22	5			
	14	9	9	2			
2.	Regular monthly menstrual cycle						
	Yes	33	33	11	.279	2	.870^{NS}
	No	45	46	12			
3.	Feel pain duration						
	One day	15	19	4			
	Two days	32	32	12	2.595	6	.858^{NS}
	Three days	21	22	5			
	throughout the menstruation	10	6	2			
4.	Duration of menstrual flow						
	2-3 days	27	25	11			
	4-5 days	23	25	6	3.821	6	.701^{NS}
	6-7 days	18	16	2			
	more than 7 days	10	13	4			
5.	Interval menstruation						
	24-26 days	10	6	6			
	27-29 days	31	37	9	8.309	6	.216^{NS}
	30 or above	22	27	5			
	irregular	15	9	3			
6.	Have you taken any measures previously to control dysmenorrhoea?						
	Yes	69	64	20	1.787	2	.409^{NS}
	No	9	15	3			
7.	If Yes, what was the measure taken ?						
	Hot application	11	15	4			
	Cold application	8	8	2	3.166	6	.788^{NS}
	painkiller tablet	50	41	14			
	na	9	15	3			
8.	Do you have any other symptoms associated with dysmenorrhoea ?						
	Yes	56	51	15	1.021	2	.600^{NS}
	No	22	28	8			
9.	Is there any symptoms associated with dysmenorrhoea as mentioned below ?						
	vomiting	16	10	1			
	headache	30	27	11	5.892	6	.435^{NS}
	weakness in lower limbs	10	14	3			
	na	22	28	8			
10.	Have you ever become absent for the school due to dysmenorrhoea?						
	Yes	70	69	19	.868	2	.648^{NS}
	No	8	10	4			
11.	If yes, how often did you take leave due to dysmenorrhoea ?						
	One day in a month	30	26	7			
	Two days in a month	21	21	5			
	More than two days in a month	13	13	4	2.250	8	.972^{NS}
	Once in every two months	6	9	3			
	na	8	10	4			

Table 7 depicts association between the level of knowledge on primary dysmenorrhea and related gynecological factors of menstruation. All factors were found to had no significant association (*p>0.05)* between levels of knowledge.

Table 8 depicts significant association between socio-demographic variable age and class with control and behaviour change domain. Variable diet has significant association with autonomic reaction whereas religion was found to be significant with water retention, autonomic reaction, control and behaviour change. Mother's education found significant with autonomic reaction and behaviour change *(p<0.05)*. Highly significant association was found between socio demographic variable age with autonomic reaction and negative affect, Class with autonomic reaction, diet, mother's education and father's occupation with water retention, habitat with water retention.*(p<0.001)*

Table 8 : Association between domain wise level of distress on primary dysmenorrhea with socio-demographic variables of adolescents girls. N=180

Sr. No.	SDV	Domain wise level of distress on primary dysmenorrhea (χ^2, df,p-value)						
		Pain	Water retention	Autonomic reaction	Control	Negative affect	Impaired communication	Behaviour change
1.	Age	7.506 4 .111^{NS}	5.088 2 .079^{NS}	22.659 2 .000**	7.332 2 .026*	15.574 4 .004**	1.708 2 .426^{NS}	13.260 4 .010*
2.	Class	5.906 4 .206^{NS}	2.314 2 .314^{NS}	15.588 2 .000**	8.964 2 .011*	6.880 4 .142^{NS}	.545 2 .761^{NS}	9.839 4 .043*
3.	Diet	3.489 2 .175^{NS}	12.986 1 .000**	6.152 1 .013*	.001 1 .975^{NS}	3.853 2 .146^{NS}	.923 1 .337^{NS}	1.891 2 .388^{NS}
4.	Religion	8.788 6 .186^{NS}	10.220 3 .017*	10.102 3 .018*	10.650 3 .014*	9.324 6 .156^{NS}	5.828 3 .120^{NS}	17.860 6 .007*
5.	Mother's education	6.413 6 .379^{NS}	12.259 3 .007**	8.728 3 .033*	2.856 3 .414^{NS}	7.438 6 .282^{NS}	2.862 3 .413^{NS}	16.920 6 .010*
6.	Father's occupation	5.125 2 .077^{NS}	12.580 1 .000**	1.899 1 .168^{NS}	.455 1 .500^{NS}	2.607 2 .272^{NS}	.952 1 .329^{NS}	5.872 2 .053^{NS}
7.	Types of family	.498 2 .779^{NS}	.892 1 .345^{NS}	1.203 1 .273^{NS}	.067 1 .795^{NS}	.321 2 .852^{NS}	.009 1 .926^{NS}	.964 2 .618^{NS}
8.	Family income	4.078 6 .666^{NS}	5.334 3 .149^{NS}	1.502 3 .682^{NS}	3.891 3 .274^{NS}	5.031 6 .540^{NS}	.132 3 .988^{NS}	5.486 6 .483^{NS}
9.	Habitat	1.143 2 .565^{NS}	10.132 1 .001**	2.531 1 .112^{NS}	.766 1 .381^{NS}	2.877 2 .237^{NS}	.006 1 .939^{NS}	2.011 2 .366^{NS}

*N.B. **= Highly significant at p<0.001, *= significant at p<0.05, NS= Non-significant at p>0.05, SDV=Socio-Demographic Variables. X^2= Chi-square, df= degree of freedom*

Table 9 : Association between domain wise levels of distress on primary dysmenorrhea with factors of menstruation among adolescents girls. N=180

Sr. No.	Factors	Domain wise level of distress on primary dysmenorrhea (χ^2, df,p-value)						
		Pain	Water retention	Autonomic reaction	Control	Negative affect	Impaired communication	Behaviour change
1.	Age of menarche	32.245 6 .000**	3.337 3 .343^{NS}	2.763 3 .430^{NS}	1.102 3 .777^{NS}	5.407 6 .493^{NS}	.337 3 .953^{NS}	3.580 6 .733^{NS}
2.	Regular monthly menstrual cycle?	.446 2 .800^{NS}	2.415 1 .120^{NS}	.313 1 .576^{NS}	.142 1 .707^{NS}	3.013 2 .222^{NS}	.036 1 .850^{NS}	1.292 2 .524^{NS}
3.	Pain during menstruation	9.366 6 .154^{NS}	3.092 3 .378^{NS}	.600 3 .896^{NS}	.751 3 .861^{NS}	11.531 6 .073^{NS}	1.254 3 .740^{NS}	3.172 6 .787^{NS}
4.	Menstrual flow	6.696 6 .350^{NS}	3.475 3 .324^{NS}	4.188 3 .242^{NS}	4.140 3 .247^{NS}	8.333 6 .215^{NS}	.890 3 .828^{NS}	17.570 6 .007^{NS}
5.	Menstrual interval	19.340 6 .004**	1.789 3 .617^{NS}	4.278 3 .233^{NS}	3.414 3 .332^{NS}	10.611 6 .101^{NS}	1.447 3 .694^{NS}	6.855 6 .335^{NS}
6.	Used measures to control dysmenorrhoea	3.980 2 .137^{NS}	.003 1 .957^{NS}	.108 1 .743^{NS}	.286 1 .593^{NS}	1.258 2 .533^{NS}	.199 1 .656^{NS}	5.890 2 .053^{NS}
7.	Name of measure	14.920 6 .021*	3.730 3 .292^{NS}	.441 3 .932^{NS}	.694 3 .875^{NS}	12.431 6 .053^{NS}	1.041 3 .791^{NS}	13.980 6 .030*
8.	Associated symptoms with dysmenorrhoea	3.761 2 .152^{NS}	.044 1 .833^{NS}	.059 1 .809^{NS}	.080 1 .778^{NS}	.650 2 .722^{NS}	.002 1 .965^{NS}	8.198 2 .017*
9.	Name of Associated symptoms with dysmenorrhoea	15.643 6 .016*	4.865 3 .182^{NS}	2.090 3 .554^{NS}	.740 3 .864^{NS}	4.945 6 .551^{NS}	1.007 3 .800^{NS}	19.016 6 .004**
10.	School absenteeism	15.803 2 .000**	.029 1 .865^{NS}	3.422 1 .064^{NS}	1.987 1 .159^{NS}	3.360 2 .186^{NS}	1.377 1 .241^{NS}	2.163 2 .339^{NS}
11.	Leave due to dysmenorrhoea	21.313 8 .006*	2.241 4 .691^{NS}	4.014 4 .404^{NS}	2.652 4 .618^{NS}	13.482 8 .096^{NS}	2.946 4 .567^{NS}	14.760 8 .064^{NS}

*N.B. **= Highly significant at p<0.001, *= significant at p<0.05, NS= Non-significant at p>0.05, SDV=Socio-Demographic Variables. X^2= Chi-square, df= degree of freedom*

Table 9 depicts association between domain wise levels of distress on primary dysmenorrhea with gynecological factors of menstruation among adolescents girls. Significant association was found between related factors i.e. name of measures used, associated symptoms with dysmenorrhea and leave due to dysmenorrhea with domain pain. Same factors except leave due to dysmenorrhea were found significant with behaviour change. (*p<0.05).* Highly significant association was found between related factors i.e. age of menarche, menstrual interval, absenteeism from school with domain pain. Symptoms associated with dysmenorrhea had highly significant association with behaviour change.(*p<0.001).*

DISCUSSION

The study was conducted to assess the knowledge and level of distress regarding primary dysmenorrhea among adolescent girls. The results revealed that most of the adolescent girls 79 (43.9%) had good knowledge followed by 78(43.3%) average knowledge and 23(12.8%) had excellent knowledge. This is congruent with findings from other studies conducted by Harum O et al knowledge level about menstrual with dysmenorrhea handling effort among students of classes XII in which 20(32.3%) students had lack of knowledge, 25(40.3%) enough knowledge and only 17(27.4%) had good knowledge. [17]

The present study findings revealed that level of distress in primary dysmenorrhea among 168(93.3%) adolescent girls was mild and only 12(6.7%) had moderate level of distress. This was supported by research conducted by Shaji JH on severity of primary dysmenorrhea and menstrual distress among University students in Kingdom of Saudi Arabia. Results highlighted that most of the girls (70%) had moderate to severe menstrual distress symptoms and 30% had mild symptoms. The overall mean for menstrual distress was 62.82 with the standard deviation of 26.9 which shows that most of the girls had one or other kind of discomfort during menstruation. [18]

In present study majority of the adolescent girls were found having mild level of distress in all domains and moderate level of distress found in three domains i-e pain, water retention and behavior change, none found in severe level of distress. The association between level of knowledge on primary dysmenorrhea and socio-demographic variables i.e. age, class, diet, religion, mother's education, type of family were found to be highly significant (*p<0.001).* Association between level of knowledge on primary dysmenorrhea with all related factors found to be non-significant (*p>0.05).*Similar study shown by Chen HM, Chen CH that results of stepwise multiple regressions indicated that the best subsets for predicting adolescent menstrual distress, including age, father's occupation , menstrual pain, and menstrual attitude, accounted for 59% of total variance. From the correlation analysis, the more severe the menstrual distress, the higher the impact on daily activities as well as the more frequent the absence from class and analgesic usage. [19]

CONCLUSION AND RECOMMENDATIONS

The present study concluded that dysmenorrhea is a very common problem among adolescent girls besides they have no sufficient knowledge on this problem so they required the health education on dysmenorrhea. They were having various levels of distress regarding dysmenorrhea as a public health practitioner should advice to home intervention on this natural silently suffer the pain due to lack of knowledge.

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Conflict of Interest
The authors have no conflict of interest to declare

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