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Puberty and menstruation: Awareness among adolescent girls of Jammu District, India

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Abstract

The Present study was conducted to know the Awareness about Puberty and Menstruation among Adolescent Girls of Jammu District of the State of Jammu and Kashmir, India. Adolescents are creative, energetic and challenging. As adolescence is considered as a period of transition from childhood to adulthood. They are no longer children yet not adults. It is characterized by rapid physical growth, significant physical, emotional, psychological and spiritual changes. So, it is a transitional period that requires special attention and protection. Habits and behaviors picked up during adolescence period have lifelong impact and it is the period in which values and skills are developed that have great impact on adolescents' well-being. The objectives of the present study were to know the awareness among Adolescent Girls regarding puberty and menstruation and to assess the awareness among Adolescent Girls regarding puberty and menstruation among rural and urban area of Jammu District. The sample consisted of 200 school going adolescent girls from Rural and Urban areas of Gandhi Nagar Educational Zone of Jammu District. The collected data was tabulated and analyzed using Z-test and scoring test. The results revealed that most of the adolescent girls were not aware and their knowledge regarding menstrual hygiene, pubertal and menstrual health was very low. Mean score of Rural Area and Urban Area was (4.83 and 7.22) respectively. It is seen that adolescents faces many physical changes as well as behavioral changes, and majority of them still do not have proper access to information and suitable guidance from their environment especially, from their elders at home and teachers in schools.

Keywords: Adolescent, Awareness, Girls, Puberty, Menstruation, Rural Area, Urban Area

Introduction

Young people are tomorrow's parents. The reproductive and sexual health decisions they make today will affect the health and well being of their communities and their countries for decades to come. Adolescence is one of life's fascinating and perhaps most complex stages, a time when young people take on new responsibilities and experiment with independence. Boys' adolescence is generally longer than girls, as girls in many societies are deemed ready for serious courtship or marriage proposals right after menarche. For large number of girls, adolescence can be best defined as the period which starts with the premature end of education and ends with the premature start of pregnancy and child bearing or even death.

Reproductive health

Reproductive health is a crucial part of general health and a central feature of human development. It is a reflection of health during childhood and crucial during adolescence adulthood, sets and stages for health beyond reproductive years for both women and men, and affects the health of the next generation

World Health Organization (WHO) has defined Reproductive Health as follows

"Reproductive health implies that people are able to have a responsible, satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide, if when, and how often to do so."

Need to focus on adolescent girls' reproductive health

Worldwide, adolescent females reaching puberty sooner, marrying later and having more premarital sex.

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Adolescent Girls separated from their families (parents): lack the livelihood security and protection afforded by the family structure, which puts them at risk for poverty and SEA (sexual exploitation and abuse). Separated adolescent girls may be compelled to drop out of school, marry or sell sex in order to meet their needs for food, shelter or protection.

Adolescent girls selling sex: are at risk of unwanted pregnancy, unsafe abortion, STIs and HIV. They are at risk of abusing drugs and alcohol and of SEA (sexual exploitation and abuse).

Adolescent girls get inaccurate information: Most parents do not discuss topics related to reproductive health and hence many teens turn to peers and to the media and get inaccurate information.

Problems regarding puberty and menstruation

Technically speaking, puberty is nature's way of transforming a child into an adult, all for the sake of reproduction. While both girls and boys go through puberty, girls reach puberty and sexual maturity at earlier ages than boys do. So what's causing all of these changes? Hormones! Actually, the female hormone estrogen is responsible for triggering all the changes in the body. Therefore there are some of the changes girls can expect at puberty.

- Increase in Height and Weight
- Puberty Breast Development
- Growth in Pubic Hair
- Menstrual period
- Mood swings

Onset of menstruation is one of the most important changes occurring during adolescence. In various parts of India, there are several cultural traditions, myths and misconceptions related to menstruation, which make adolescent girls vulnerable to genital tract infections. The event of menarche may be associated with taboos and myths existing in our traditional society which has a negative implication for women's health, particularly their menstrual hygiene.

Studies have shown that the girls lack knowledge about menstruation and due to lack of hygiene; they are likely to suffer from RTI's.

Some varieties of menstrual dysfunctions occur in about half of the adolescent females.

- **Amenorrhoea or absence of menstruation** is when an adolescent has not menstruated till the age of 16 years or more than one year later than her mother or older sibling's menarche age. Normally very obese or very slender adolescent may have late onset of menarche.
- **Abnormal vaginal bleeding** is common in adolescents in the first year of menarche is also called "Dysfunctional uterine bleeding". In most of the cases this is without a known cause though it may be due to threatened abortions, ectopic pregnancy (fetus growing outside the womb), use of contraceptives. These always require reassurance and medical intervention.
- **Painful menstrual cramps** are experienced by nearly two third of the adolescents. During second half of the menstrual cycle many adolescents experience breast

fullness or breast pain, bloating, fatigue, headache increased appetite especially for sweets and salty foods, irritability, mood swings, depression, inability to concentrate, tearfulness, violent tendencies etcetera. Most of the times it requires simple pain killers, diuretics and reassurance from an expert.

The early onset of menarche is influenced by many factors like climate, geographical distribution, diet, information inclusive of media exposure, etc. Moreover, the mothers of the adolescents, who should become a source of knowledge regarding the physiological process of menstruation, were also not giving correct information as they themselves did not have adequate knowledge. With this lack of knowledge about menstruation, its relevance to reproductive profile of women along with the necessity of observing and maintaining hygiene, the adolescent girls are at a high risk of developing reproductive health problems.

Objectives

The objectives of the present study were

1. To know the awareness among Adolescent Girls regarding puberty and menstruation.
2. To assess the awareness among Adolescent Girls regarding puberty and menstruation among rural and urban area of Jammu District.

Research methodology

• Sample size

The sample consisted of a total 200 school going adolescent girls from Gandhi Nagar educational zone. Hundred girls were from Rural area (50 from Government school and 50 from Private school) and hundred girls were from Urban area (50 from Government school and 50 from Private school).

• Sampling technique

The sample was collected from Jammu District. Gandhinagar educational zone was purposively selected for the study. The Rural area "Sunjwan" and the Urban area "Gandhinagar" were included in the study by convenient sampling technique. Two schools (one Government and one Private) were selected by systematic random sampling (fish bowl method) from each area. And the adolescent girl students were selected from the school enrolment register by random sampling technique.

Criteria for sample collection

- Gender: Only girls were selected for the sample.
- Age: Girls in the age group of 13-18 years.
- Education: Only girls studying in 8th, 9th and 10th classes.
- Ecological setting: The study was conducted in Government and Private schools of Rural and Urban areas of Jammu District.

Tools to be used

Questionnaire

Self devised Questionnaire was used for data collection.

Results & discussion

Knowledge among adolescent girls regarding reproductive health

Table 1(a): Knowledge regarding meaning of Reproductive Health, N = 200

	Meaning of reproductive Health								Total		Test of significance
	Rural				Urban				B.I	A.I	Z-test
	B.I		A.I		B.I		A.I				
	N	%	N	%	N	%	N	%			
Govt. N=100	19	38	49	98	9	18	44	88	28	93	10.31**
Pvt. N=100	15	30	50	100	37	74	50	100	52	100	8.88**
Total	34		99		46		94				
Z-test	10.31**				7.61**						

** Highly significant

Table 1(a) mainly focuses on the knowledge of adolescent girls regarding “reproductive health is a physical, mental, social well being in all stages of life”.

- The above table depicts that most (28% & 52%) of adolescent girls in Government and Private Schools had knowledge regarding the “Meaning of Reproductive Health”. After the intervention their knowledge increased to (93% & 100%) respectively and this change was highly significant.

- Similarly, most (34% & 46%) school going adolescent girls in Rural and Urban areas had knowledge regarding the “Meaning of Reproductive Health”. After the intervention their knowledge significantly increased to (99% & 94%) respectively.

Thus the Z Scores for change in knowledge is higher for Government than Private Schools going adolescent girls and also more for Urban than Rural.

Table 1(b): Knowledge regarding components of Reproductive Health, N=200

	Components of reproductive Health								Total		Test of significance
	Rural				Urban				B.I	A.I	Z-test
	B.I		A.I		B.I		A.I				
	N	%	N	%	N	%	N	%			
Govt. N=100	26	52	40	80	13	26	44	88	39	84	7.14**
Pvt. N=100	9	18	50	100	35	70	50	100	44	100	8.88**
Total	35		90		48		94				
Z-test	8.73**				7.30**						

** Highly significant

Table No.1 (b) mainly focuses on the knowledge regarding “Components of reproductive health: Pre natal care, Anti natal care, Post natal care, Abortion and Post abortion care, Safe motherhood”.

- It is clearly depicted in the above table that (39% & 44%) of adolescent girls in Government and Private Schools had knowledge about the “Components of Reproductive Health”. After the intervention their knowledge increased

to (84% & 100%) respectively and this change was highly significant.

- Similarly, (39% & 48%) of school going adolescent girls in Rural and Urban areas had knowledge about the “Components of Reproductive Health”. After the intervention their knowledge was significantly increased to (90% & 94%) respectively.

Table 2: Scoring of knowledge regarding reproductive health

	Knowledge among adolescent girls regarding reproductive health					
	Rural		Urban		Mean score (2)	
	B.I	A.I	B.I	A.I	B.I	A.I
Govt. N=100	0.65	0.89	0.22	0.88	0.87	1.77
Pvt. N=100	0.24	1.00	0.72	1.00	0.96	2.0
Mean score	0.89	1.89	0.94	1.88	1.83	3.77

Table no.2 reveals the mean score of respondents about reproductive health. Total scores for the section was 2 marks.

- Mean scores of Government School and Private School was (0.87 and 0.96) respectively.
- After intervention the scores of the respondents increased to (1.77 and 2.0) in both settings.
- Mean scores of Rural Area and Urban Area was (0.89 and 0.94) respectively.
- After intervention the scores of the respondents increased to (1.89 and 1.88) in both settings.

A similar study was conducted by Nair (2012) [8] and Malleshppa (2012), who observed that majority of adolescent girls were poorly informed about reproductive sexual health matters but after intervention there was a statistically significant increase in the knowledge in girls. Knowledge among adolescent girls regarding puberty and menstruation

Table 3(a): Knowledge regarding meaning of menarche, N=200

	Meaning of menarche								Total		Test of significance
	Rural				Urban				B.I	A.I	Z-test
	B.I		A.I		B.I		A.I				
	N	%	N	%	N	%	N	%			
Govt. N=100	0	0	46	92	10	20	47	94	10	93	13.17**
Pvt. N=100	10	20	49	98	26	52	44	88	36	93	9.04**
Total	10		95		36		91				
Z-test	13.49**				8.73**						

** Highly significant

Table No. 3(a) mainly focuses on knowledge among adolescent girls regarding “process of menstruating first time is known as menarche”.

- The above table depicts that very few (10% & 36%) respondents in Government and Private Schools knew that the process of menstruating first time is known as menarche. After the intervention their knowledge

increased to (93% & 93%) respectively. The change was highly significant.

- Similarly, the knowledge of school going adolescent girls in both Rural and Urban areas increased from (10% & 36%) to (95% & 91%) respectively. The change was highly significant.

Table 3(b): Knowledge regarding age of menarche, N=200

	Age of menarche								Total		Test of significance
	Rural				Urban				B.I	A.I	Z-test
	B.I		A.I		B.I		A.I				
	N	%	N	%	N	%	N	%			
Govt. N=100	25	50	41	82	21	42	44	88	46	85	6.19**
Pvt. N=100	28	56	46	92	31	62	47	94	59	93	6.29**
Total	53		87r		52		91				
Z-test	5.39**				6.19**						

** Highly significant

Table No. 3(b) reveals the knowledge of the adolescent girls regarding age of menarche is (9 – 16) years.

- The above table depicts that most (46% & 59%) of adolescent girls in both Government and Private Schools knew that the age of menarche is (9 – 16) years. After the intervention their knowledge increased to (85% & 93%)

respectively. The change was highly significant.

- Similarly, the knowledge of school going adolescent girls in both Rural and Urban areas increased from (53% & 52%) to (87% & 91%) respectively. This change was highly significant.

Table 3(c): Knowledge regarding meaning of menstruation, N=200

	Meaning of menstruation								Total		Test of significance
	Rural				Urban				B.I	A.I	Z-test
	B.I		A.I		B.I		A.I				
	N	%	N	%	N	%	N	%			
Govt. N=100	5	10	34	68	7	14	42	84	12	76	10.15**
Pvt. N=100	7	14	43	86	23	46	41	82	30	84	8.57**
Total	12		77		30		83				
Z-test	10.31**				8.41**						

** Highly significant

Table No. 3(c) depicts the knowledge among adolescent girls regarding meaning of menstruation. It mainly focuses on knowledge that menstruation means shedding of the thickened womb lining.

- The above table shows that very few (12% & 30%) of adolescent girls in both Government and Private Schools had knowledge regarding “Meaning of Menstruation.”

After the intervention their knowledge significantly increased to (76% & 84%) respectively.

- Similarly, (12% & 30%) of school going adolescent girls of Rural and Urban areas had knowledge regarding “Meaning of Menstruation”. After the intervention their knowledge increased to (77% & 83%) respectively. This change was highly significant.

Table 3(d): Knowledge regarding menstrual cycle, N=200

	Interval between two menstrual cycle								Total		Test of significance
	Rural				Urban				B.I	A.I	Z-test
	B.I		A.I		B.I		A.I				
	N	%	N	%	N	%	N	%			
Govt. N=100	3	6	43	86	24	48	46	92	27	89	9.84**
Pvt. N=100	15	30	50	100	44	88	50	100	59	100	7.59**
Total	18		93		68		96				
Z-test	11.90**				6.36**						

** Highly significant

Table No. 3(d) depicts the knowledge among adolescent girls regarding interval between two menstrual cycles. It mainly focuses on knowledge that average interval between two menstrual cycles is of 28 days.

- It is clear from the above table that only (27% & 59%) of the adolescent girls in Government and Private Schools knew that average interval between two menstrual cycles

is of 28 days. After the intervention their knowledge significantly increased to (89% & 100%) respectively.

- Similarly, (18% & 68%) of school going adolescent girls from Rural and Urban areas knew that average interval between two menstrual cycles is of 28 days. After the intervention their knowledge increased to (93% & 96%) respectively. This change was highly significant.

Table 3(e): Knowledge regarding occurrence of menstruation, N=200

	In which part of female reproductive system menstruation occurs								Total		Test of significance Z-test
	Rural				Urban				B.I	A.I	
	B.I		A.I		B.I		A.I				
	N	%	N	%	N	%	N	%			
Govt. N=100	12	24	45	90	10	20	46	92	22	91	10.95**
Pvt. N=100	26	52	50	100	34	68	50	100	60	100	7.40**
Total	38		95		44		96				
Z-test	9.04**				8.25**						

** Highly significant

Table No. 3(e) mainly focuses on the knowledge of adolescent girls regarding “menstruation occurs in uterus”.

- It is depicted in the above table that only (22%) of adolescent girls in Government Schools and majority (60%) of adolescent girls in Private Schools knew that menstruation occurs in uterus. After the intervention their knowledge increased to (91%) and (100%) respectively.

This change was highly significant.

- While, (38% & 44%) of school going adolescent girls in Rural and Urban areas knew that menstruation occurs in uterus. After the intervention their knowledge was increased to (95% & 96%) respectively and this change was highly significant.

Table 5(f): Knowledge regarding duration of menstruation, N=200

	Average duration of menstruation								Total		Test of significance Z-test
	Rural				Urban				B.I	A.I	
	B.I		A.I		B.I		A.I				
	N	%	N	%	N	%	N	%			
Govt. N=100	28	56	37	74	18	36	47	94	46	84	6.03**
Pvt. N=100	16	32	48	96	41	82	47	94	57	95	7.03**
Total	44		85		59		94				
Z-test	6.50**				6.48**						

** Highly significant

Table No. 5(f) depicts the knowledge among adolescent girls regarding the duration of menstruation. It mainly focuses on knowledge that average duration of menstruation period is of 5 days.

- It is clearly depicted in the above table that most (46% & 57%) of adolescent girls in both Government and Private Schools had knowledge

regarding “Duration of menstruation.” After the intervention their knowledge significantly increased to (84% & 95%) respectively.

- Similarly the knowledge of school going adolescent girls in Rural and Urban areas increased from (44% & 59%) to (85% & 94%) respectively. This change was highly significant.

Table 5(g): Knowledge regarding process of menstruation, N=200

	Process of menstruation								Total		Test of significance Z-test
	Rural				Urban				B.I	A.I	
	B.I		A.I		B.I		A.I				
	N	%	N	%	N	%	N	%			
Govt. N=100	7	14	39	78	5	10	42	84	12	81	10.95**
Pvt. N=100	2	4	47	94	28	56	46	92	30	93	10.00**
Total	9		86		33		88				
Z-test	12.22**				8.73**						

** Highly significant

Table No. 5(g) reveals the knowledge of adolescent girls about “Process of menstruation”. It mainly focuses on knowledge that process of menstruation involves leaving of unfertilized egg and uterine blood lining from the uterus to outside the body through vagina.

- This table shows that only (12% & 30%) of adolescent girls in both Government and Private Schools had knowledge regarding ‘The process of menstruation’.

After the intervention their knowledge increased to (81% & 93%) respectively. The change was highly significant.

- Similarly, very few (9% & 33%) of school going adolescent girls in Rural and Urban areas had knowledge regarding ‘The process of menstruation’. After the intervention their knowledge increased to (86% & 88%) respectively. This change was highly significant.

Table 5(h): Knowledge regarding Menstruation, N=200

	Excessive bleeding during menstruation leads to poor reproductive health								Total		Test of significance
	Rural				Urban				B.I	A.I	Z-test
	B.I		A.I		B.I		A.I				
	N	%	N	%	N	%	N	%			
Govt. N=100	30	60	40	80	34	68	45	90	64	85	3.88**
Pvt. N=100	39	78	45	90	42	84	48	96	81	93	2.72**
Total	69		85		76		93				
Z-test	2.96*				3.86**						

*Low Significant, ** Highly significant

Table No. 5(h) reveals the knowledge of adolescent girls regarding menstruation and it mainly focuses on that the excessive bleeding during menstruation leads to poor reproductive health.

- The above table depicts that majority (64% & 81%) of adolescent girls in both Government and Private Schools knew that excessive bleeding during menstruation leads to poor reproductive health. After the intervention their

knowledge significantly increased to (85% & 93 %) respectively.

- Similarly, (69% & 76%) of school going adolescent girls in Rural and Urban areas knew that excessive bleeding during menstruation leads to poor reproductive health". After the intervention their knowledge significantly increased to (85% & 93%) respectively.

Table 5(i): Knowledge regarding menstruation and pregnancy, N=200

	After onset of menstruation girl is liable to become pregnant								Total		Test of significance
	Rural				Urban				B.I	A.I	Z-test
	B.I		A.I		B.I		A.I				
	N	%	N	%	N	%	N	%			
Govt. N=100	29	58	40	80	35	70	46	92	64	86	4.07**
Pvt. N=100	24	48	49	98	40	80	45	90	64	94	5.55**
Total	53		89		75		91				
Z-test	5.71**				3.63**						

** Highly significant

Table No. 5(i) reveals the knowledge of adolescent girls regarding menstruation and pregnancy which brings out their knowledge about the statement that "after onset of menstruation, a girl is liable to become pregnant".

- It is clearly depicted in above table that majority (64% & 64%) of adolescent girls in both Government and Private Schools already knew that after onset of menstruation; a

girl is liable to become pregnant. After the intervention their knowledge increased to (86% & 94%) respectively.

- Similarly, (53% & 75%) of school going adolescent girls in Rural and Urban areas already knew that after onset of menstruation, a girl is liable to become pregnant. After the intervention their knowledge increased to (89% & 91%) respectively.

Table 3(j): Knowledge regarding pubertal changes, N=200

	Pubertal changes								Total		Test of significance
	Rural				Urban				B.I	A.I	Z-test
	B.I		A.I		B.I		A.I				
	N	%	N	%	N	%	N	%			
Govt. N=100	30	60	47	94	18	36	45	90	48	92	6.98**
Pvt. N=100	26	52	50	100	37	74	47	94	63	97	6.29**
Total	56		97		55		92				
Z-test	7.59**				6.85**						

** Highly significant

Table No. 3(j) mainly focuses on revealing the knowledge of adolescent girls regarding "Pubertal changes include appearance of pubic hair, breast enlargement, broadening of hips".

- The above table depicts that most (48% & 63%) of adolescent girls in Government and Private Schools had

knowledge regarding pubertal changes. After the intervention their knowledge increased to (92% & 97%) respectively.

- Similarly, the knowledge of school going adolescent girls in both rural and urban areas increased from (56% & 55%) to (97% & 92%) respectively.

Table 3(k): Knowledge regarding age of attaining puberty, N=200

	Age of attaining puberty								Total		Test of significance
	Rural				Urban				B.I	A.I	Z-test
	B.I		A.I		B.I		A.I				
	N	%	N	%	N	%	N	%			
Govt. N=100	16	32	45	90	18	36	45	90	34	90	8.88**
Pvt. N=100	7	14	50	100	33	66	45	90	40	95	8.73**
Total	23		95		51		90				
Z-test	11.42**				6.19**						

**Highly significant

Table No. 3(k) mainly focuses on revealing the knowledge of adolescent girls regarding “Age of attaining Puberty is (9 – 12) years”.

- The above table shows that minority (34% & 40%) of adolescent girls in Government and Private Schools knew that age of attaining puberty is (9 – 12) years but after the

intervention their knowledge increased to (90% & 95%) respectively. This change was highly significant.

- Similarly, the knowledge of school going adolescent girls in both Rural and Urban areas regarding the same increased from (23% & 51%) to (95% & 90%) respectively and this change was highly significant.

Table 3(l): Knowledge regarding puberty, N=200

	Not attain Puberty at the age of 14 is a biological problem								Total		Test of significance
	Rural				Urban				B.I	A.I	Z-test
	B.I		A.I		B.I		A.I				
	N	%	N	%	N	%	N	%			
Govt. N=100	22	44	45	90	28	56	46	92	50	91	6.50**
Pvt. N=100	29	58	43	86	32	64	47	94	61	90	5.37**
Total	51		88		60		93				
Z-test	5.87**				6.11**						

** Highly significant

Table No. 3(l) reveals the knowledge of adolescent girls regarding “puberty”. It mainly focuses on “not attain puberty at the age of 14 is a biological problem”.

- The above table depicts that most (50% & 61%) of adolescent girls in both Government and Private Schools knew that not attaining puberty at the age of 14 is a biological problem but after the intervention their

knowledge increased to (91% & 90%) respectively. This change was highly significant.

- Similarly the knowledge of school going adolescent girls in both Rural and Urban areas regarding same increased from (51% & 60%) to (88% & 93%) respectively. This change was highly significant.

Table 3(m): Knowledge regarding puberty in both genders, N=200

	Puberty occurs in both boys and girls								Total		Test of significance
	Rural				Urban				B.I	A.I	Z-test
	B.I		A.I		B.I		A.I				
	N	%	N	%	N	%	N	%			
Govt. N=100	16	32	49	98	25	50	47	94	41	96	8.73**
Pvt. N=100	24	48	47	94	39	78	46	92	63	93	5.55**
Total	40		96		64		93				
Z-test	8.88**				5.37**						

** Highly significant

Table No. 3(m) reveals the knowledge of adolescent girls regarding “puberty”. It mainly focuses on “puberty occurs in both boys and girls”.

- It is depicted in the above table that most (41% & 63%) of adolescent girls in both Government and Private Schools knew that puberty occur in both boys and girls.

After the intervention their knowledge increased to (96% & 93%) respectively. This change was highly significant.

- Similarly the knowledge of school going adolescent girls in both Rural and Urban areas increased from (40% & 64%) to (96% & 93%) respectively and the change was highly significant.

Table 3(n): Knowledge regarding difference between puberty and menarche, N=200

	Difference between puberty and menarche								Total		Test of significance
	Rural				Urban				B.I	A.I	Z-test
	B.I		A.I		B.I		A.I				
	N	%	N	%	N	%	N	%			
Govt. N=100	19	38	45	90	30	60	47	94	49	92	6.82**
Pvt. N=100	26	52	48	96	34	68	47	94	60	95	6.48**
Total	45		93		64		94				
Z-test	7.61**				5.55**						

** Highly significant

Table No. 3(n) It mainly focuses on knowledge among adolescent girls regarding “difference between puberty and menarche”.

- The above table depicts that most (49% & 60%) adolescent girls in both Government and Private Schools knew that there is a difference between puberty and menarche. After the intervention their knowledge

significantly increased to (92% & 95%) respectively.

- Similarly, most (45% & 64%) school going adolescent girls in Rural and Urban areas knew that there is a difference between puberty and menarche”. After the intervention their knowledge significantly increased to (93% & 94%) respectively.

Table 3(o): Scoring of knowledge regarding puberty and menstruation, N= 200

	Knowledge of adolescent girls regarding puberty and menstruation					
	Rural		Urban		Mean score (13)	
	B.I	A.I	B.I	A.I	B.I	A.I
Govt. N=100	2.30	5.51	2.73	5.89	5.03	11.40
Pvt. N=100	2.53	6.15	4.50	6.00	7.03	12.15
Mean score	4.83	11.66	7.23	11.89	12.06	23.55

Total scores for the section was 13 marks

- Mean scores of Government School and Private School was (5.03 and 7.03) respectively.
- After intervention the scores of the respondents increased to (11.40 and 12.15) in both setting.
- Mean score of Rural Area and Urban Area was (4.83 and 7.23) respectively.
- After intervention the scored of the respondents increased to (11.66 and 11.89) in both setting.

A similar study was conducted Dasgupta, in his study, it had found that awareness and knowledge regarding menstrual hygiene, pubertal and menstruation health was very low but after intervention there knowledge significant increased.

Attitude and behavior of adolescent girls regarding various aspects of reproductive health

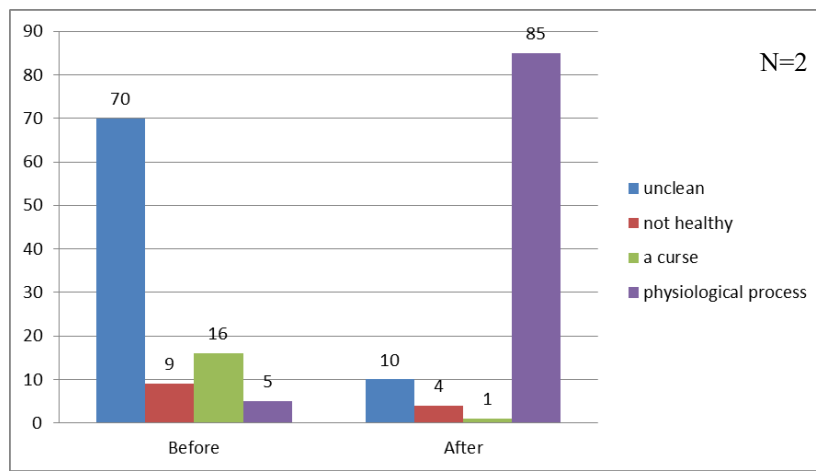


Fig 1: Opinion towards menstruation

Fig 1: depicts that.

Before intervention majority (70%) of the respondents related menstruation to uncleanliness, (16%) of respondents believed that it was a curse to them, (9%) of respondents said that it was not a healthy process and only (5%) of respondents knew that it was a physiological process.

After the intervention, majority (85%) of respondents knew that menstruation is a physiological process while (10%), (4%) and (1%) of respondents still believed that menstruation is unclean, not healthy and is a curse.

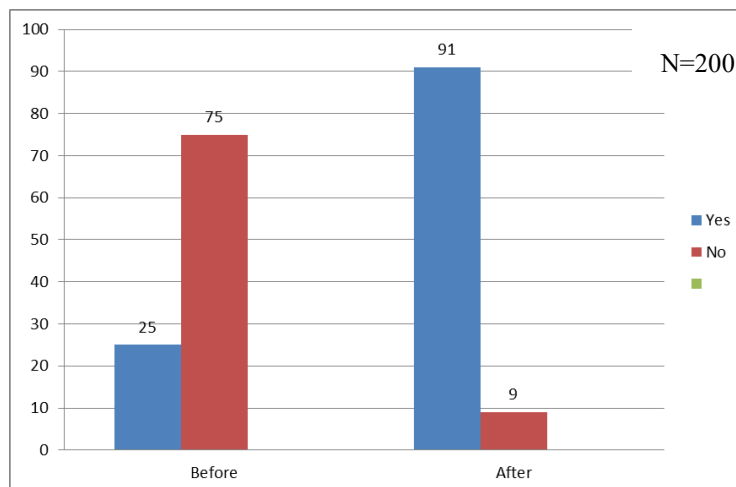


Fig 2: Menstruation is a normal natural phenomenon.

Figure 2 depicts that:

Before intervention only (25%) of respondents agreed that menstruation is a normal natural phenomenon while majority

(75%) of respondents don't.

After intervention the respondents' awareness increased. Majority (91%) of respondents agreed that menstruation is a

normal natural phenomenon while very few (9%) of respondents still don't agree with the statement.

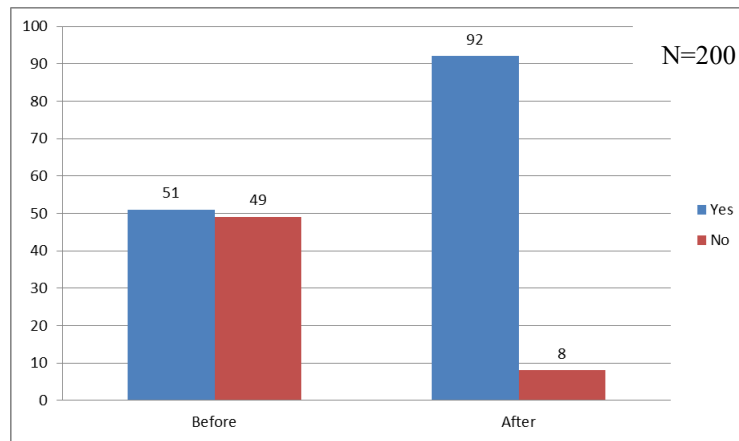


Fig 3: Having irregular periods is a cause of concern

Figure 3 depicts that:

Before intervention, most (51%) of respondents believed that irregular periods is a cause of concern while (49%) do not believe.

After intervention, majority (92%) of respondents believed that irregular periods is a cause of concern while very few (8%) still do not believe.

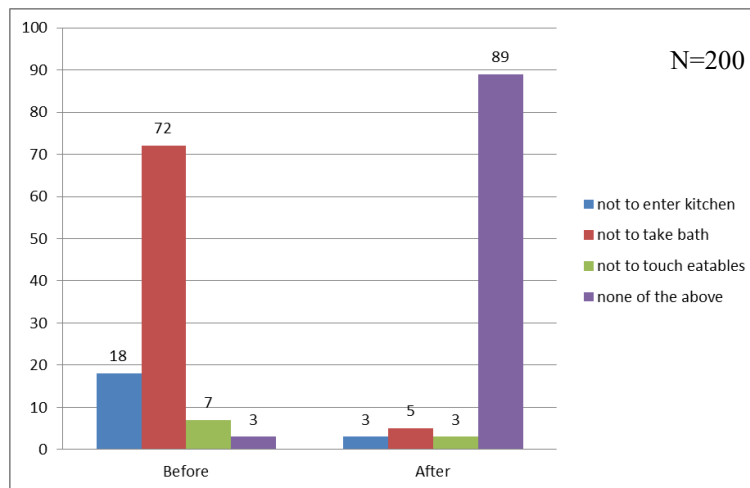


Fig 4: Practice followed during menstruation

Figure no.4 shows that Before intervention the respondents' behaviour during menstruation was not good. Majority (72%) of respondents do not take bath, (18%) of respondents do not enter kitchen, (7%) of respondents do not touch eatables and there were only (3%) of respondents who don't follow such types of practices during their menstruation.

After intervention figure 4 depicts that: The respondents' behaviour during menstruation leads towards good practices. Majority (89%) of respondents don't follow such types of practices during their menstruation. Only (10%) of respondents,' behaviour during menstruation was not satisfactory.

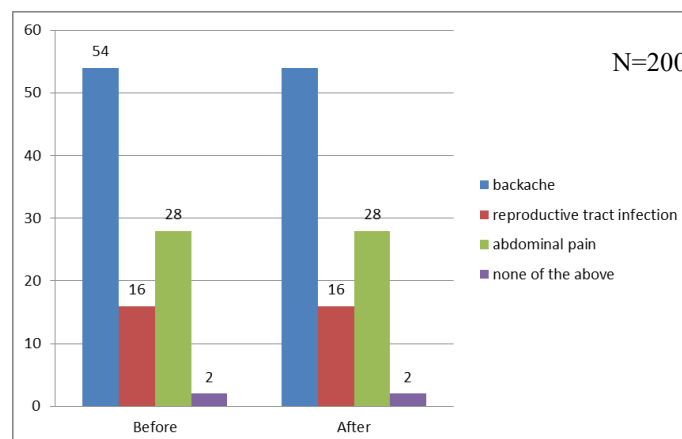


Fig 5: Problem Faced during menstruation

Figure 5 depicts that:

Before the intervention, majority (54%) of respondents suffer from backache during menstruation, (28%) of respondents face abdominal pain, (16%) of respondents suffer

from reproductive tract infections, while very few (2%) of respondents do not face any problems during menstruation.

After the intervention, the above responses remain the same.

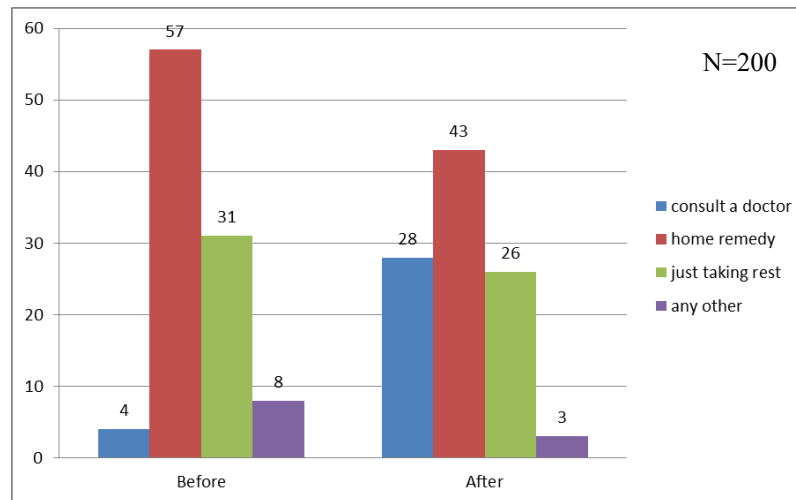


Fig 6: Remedial measures followed during menstrual problems

Figure 6 depicts that:

Before intervention, majority (57%) of respondents prefer home remedies during menstrual problems, (31%) of respondents prefer to take rest, (8%) of respondents follow other remedial measures like some exercises etc and very few (4%) of respondents prefer to consult a doctor during menstrual problems.

After intervention, still most (43%) of respondents prefer home remedies during menstrual problems, (28%) of respondents prefer to consult a doctor, (26%) of respondents prefer to take rest and very few (3%) of respondents follow other remedial measures like some exercises etc. to during menstrual problems.

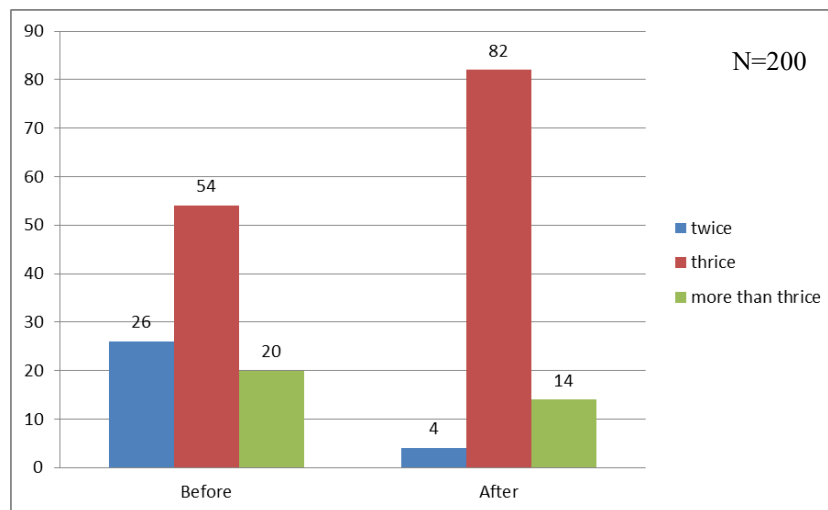


Fig 7: No. of times a day pad or cloth is changed or washed

Figure 7 depicts that:

Before the intervention, during menstruation most (54%) of respondents use to change and wash pad or cloth thrice a day, (26%) of respondents do it twice a day and (20%) of respondents use to change and wash pad or cloth more than thrice a day.

After the intervention, during menstruation most (82%) of respondents use to change and wash pad or cloth thrice a day, (14%) of respondents do it more than thrice a day and very few (4%) of respondents use to change and wash pad or cloth twice a day.

Summary & conclusion

The scoring of the test reveal that scores measured for the knowledge regarding various aspects of Reproductive Health among adolescent girls of Rural and Urban areas before intervention was just average i.e. (35.02 and 43.4) which significantly improved to good scores i.e. (68.81 and 68.2) respectively after intervention. The reasons could be that they were seeking information from invalid and unreliable sources such as friends, internet, etc. they do not talk to their elders like Parents, Teachers about the related issues due to their tendency of fear and shyness. Therefore there is a great need for adolescent girls to develop friendly, trust worthy and healthy relationship with their parents, teachers and other

elder members at home. Family has a crucial role in shaping the adolescents behaviour. They have to ensure a safe, secure, and supportive environment for the adolescents. It was also observed that that scores measured for the knowledge regarding various aspects of Reproductive Health among school going adolescent girls in Government and Private Schools before intervention was just average i.e. (31.3 and 47.12), after intervention programme their scores improved to good scores i.e. (64.92 to 72.09) respectively. It clearly shows that in comparison to Rural the Urban respondents were more aware regarding the various aspects of Reproductive Health, similarly Private School going adolescent girls were more aware than Government School going adolescent girls. The knowledge and attitude regarding different Reproductive Health aspects increased significantly and changes positively, there is a positive effect of intervention programme on school going adolescent girls. Hence, this study concluded that an educational intervention programme can bring about a desirable change in knowledge among adolescent girls regarding reproductive health.

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