A Study to Assess the Knowledge on The Contributing Factors for Irregular Menstruation Among Adolescent Girls in Selected Pre-University Colleges at Hassan with a view to Develop Information Guide Sheet

Mrs. SMITHA M
Asst- Professor, New Sri Shanthi College of Nursing, Sy. No 18-318/319, Kuduregere Colony, Dasanapura Hobli, Alur Post, Bangalore (Dist.), Karnataka, India

Abstract- Adolescence is a crucial time for girls, during which they undergo rapid physical and emotional changes, with evidence of menstruation every month. Puberty is a period of physical growth and sexual maturation. It is a gradual process that occurs during early adolescence and involves a great number of physical, mental, and social adjustments and role performance.

Objectives-To assess the knowledge of adolescent girls regarding irregular menstruation. To develop and administer an information guide sheet on irregular menstruation. To find the association between knowledge scores and selected sociodemographic variables.

Methods-A descriptive approach was used to evaluate the effectiveness of the independent variable on the dependent variable. A non-experimental descriptive research design was used to assess the knowledge of adolescent girls regarding the contributing factors for irregular menstruation in selected PU colleges in Hassan. In this Simple random sampling technique, a structured knowledge questionnaire was selected based on the objectives of the study. The data gathered were analyzed using the computation of mean and standard deviation. Inferential statistics, Karl Pearson correlation coefficient test, and chi-square test were performed at 0.015 level of significance to find out the significance association between the level of knowledge and demographic variables. The data are represented using various graphical devices, such as bar diagrams and pie charts.

Results-The study findings showed that 43.63% of adolescent girls had knowledge of the contributing factors for irregular menstruation in the pre-test. Considering the overall aspect, the results show a significant association between the knowledge of adolescent girls and their selected sociodemographic variables.

Key words: Irregular menstruation, adolescent girls, information guide sheet

INTRODUCTION

Adolescence is a time of moving from the immaturity of childhood into the maturity of adulthood. The word “adolescent” is a Latin word derived from the word ‘adolescere.’ The WHO defines “adolescents” as individuals in the 10-19 years age group and ‘youth’ as the 15-24 years age group. These two overlapping age groups are combined in the group ‘young people’ covering the age range 10-24 years. The adolescent period was categorized as early adolescent (12-13 years), middle Adolescent (14-16 years), and late (17-19 years).

Menstruation is the visible manifestation of cyclic physiological uterine bleeding due to endometrial shedding. This is approximately the monthly vaginal discharge in humans and other mammals. The menstrual cycle is a vital sign, and its normalcy suggests overall good reproductive health, while abnormalities require clinical evaluation. Menstruation is a complex set of hormonal interactions that cause subtle physical or psychological cues that women can easily identify, and it is controlled by a feedback system of cycles: endometrial, hypothalamic-pituitary, and ovarian. The period extending from the beginning of menses to the beginning of the next one is called the Menstrual Cycle, and the duration of flow is 5 days (ranges from 3- 6 days), with an average blood loss of 50 ml (ranges 20–80 ml). Menstrual discharge mainly contains dark altered blood, mucus, vaginal epithelial cells, fragments of the endometrium, prostaglandins, enzymes, and bacteria.

Although menstruation is normal, some women experience dilemmas during their monthly periods. Irregular Menstruation is a disturbance or any

marked alteration in the normal pattern of the menstrual cycle, that is, the length, amount, and duration of flow. Irregular menstruation among young adolescents and women is becoming more common nowadays, and it is important to educate young adolescent girls and their parents regarding the irregularity in the range and length of subsequent menstrual cycles.

STATEMENT OF THE PROBLEM

"A study to assess the knowledge on the contributing factors for irregular menstruation among adolescent girls in selected Pre-University colleges at Hassan with a view to develop information guide sheet."

Objectives

To assess the knowledge of adolescent girls regarding the irregular menstruation. To develop and administer an information guide sheet on irregular menstruation. To find the association of knowledge scores with their selected socio-demographic variables.

Methods and Materials

Hypothesis – There will be significant association between the knowledge scores with the selected socio-demographic variables.

Research Approach

Research Design: Descriptive research design was used.

Population: The population consists of adolescent girls studying in PU colleges at Hassan.

Sample: Sample selected for this study were 100 adolescent girls.

Sample Size: 100 adolescent girls.

Sampling Technique: Simple random sampling technique for the selection of samples by lottery method.

Research Variables: Socio-demographic variables and Clinical variables.

Method of Data collection

Data collection was scheduled for December 2011, with prior permission from the concerned authority, and verbal consent was obtained from each sample. Appropriate orientation was given to all the samples regarding the aim of the study, nature of the tool, and adequate care was taken to protect them from potential risks, including maintaining confidentiality, security, and identity. A structured knowledge questionnaire was used to assess the knowledge of adolescent girls regarding the contributing factors for irregular menstruation.

Tools used for the study

Section- I: A structured knowledge questionnaire on Socio- demographic data.

Section- II: Knowledge questionnaire on various contributing factors for irregular menstruation.

Plan for Data analysis

The collected data were statistically analyzed and tabulated using descriptive and inferential statistics. The chi-square test was used to determine the association between demographic variables and knowledge scores. The findings are represented in various tables and graphical representations, such as bar diagrams and pie charts.

Results

Analysis of the study findings are categorized and presented under the following heading.

Section-I: Distribution on the subjects according to socio-demographic variables.

Section-II: Assessment of knowledge of subjects regarding contributing factors for irregular menstruation.

Section-III: Association between level of knowledge and their demographic variables.

SECTION-I DISTRIBUTION OF THE SUBJECTS ACCORDING TO SOCIO-DEMOGRAPHIC VARIABLES.

Table-1: Demographic profile

Demographic variables		No. of subjects (n)	Percentage %
Age	14-16 years	24	24
	16-18 years	75	75
	18-20 years	1	1
Religion	Hindu	93	93
	Muslim	7	7
Type of family	Nuclear family	89	89
	Joint family	3	3

	Extended family	5	5
	Single-parent family	3	3
Education of the mother	Illiterate	9	9
	Primary & Secondary education	66	66
	PU or Equivalent course	16	16
	Degree	9	9
Occupation of the mother	Private employee	6	6
	Government employee	14	14
	Self-employed/business	5	5
	Unemployed	75	75
Income of the family (Monthly)	Less than Rs. 5000/-	20	20
	Rs. 5000 to 10000/-	40	40
	Rs. 10000 to 15000/-	21	21
	More than Rs. 15000/- & above	19	19
Place of residence	Urban	70	70
	Rural	30	30
Age of attaining Menarche	11-14 years	55	55
	15-18 years	45	45
History of previous exposure to health teaching/ seminar/ workshops on irregular menstruation	Yes	22	22
	No	78	78
Source of information on irregular menstruation	Mass media	13	13
	Parents and family members	71	71
	Health workers	8	8
	Others	8	8
Experience of menstrual irregularities	Yes	57	57
	No	43	43
Practice of home remedial measures	Yes	9	9
	No	91	91
Habits	Dancing & Music	31	31
	Sports activities	7	7
	Reading, drawing and painting	52	52
	Others	10	10

SECTION-II ASSESSMENT OF KNOWLEDGE OF SUBJECT REGARDING CONTRIBUTING FACTORS OF IRREGULAR MENSTRUATION

TABLE-2: Pre-test knowledge score on different aspects of irregular menstruation.

N=100

Area of knowledge	No. of items	Range		Knowledge score		
		Min	Max	Mean score	SD	Mean %
Normal menstrual cycle	9	1	9	3.51	1.403	39
Irregular menstrual cycle	6	0	5	2.45	1.048	40.83
Modifiable contributing factors	11	1	9	5.25	1.678	47.73
Non-modifiable contributing factors	4	0	4	1.88	0.935	47

TABLE-3: Overall knowledge score regarding contributing factors for irregular menstruation

N=100

Variable	No. of items	Range		Knowledge score		
		Min	Max	Mean score	SD	Mean %
Knowledge	30	5	22	13.09	3.143	43.63

TABLE-4: Distribution of subjects according to level of knowledge

N=100

Level of Knowledge	Frequency	Percentage (%)
Adequate	38	38
Moderately adequate	19	19
Inadequate	43	43
Total	100	100

TABLE-5: Demographic wise assessment of knowledge

N=100

Demographic variables		(N)	Mean	SD	Mean %	SIGNIFICANCE TEST
Age	14-16 years	24	12.71	3.712	42.366	F-TEST = 0.478
	16-18 years	75	13.24	2.968	44.13	P = 0.621
	18-20 years	1	11.00	-	36.67	
Religion	Hindu	93	12.88	3.145	42.93	t- TEST = 2.477
	Muslim	7	15.86	1.345	52.87	P= 0.015
Type of family	Nuclear family	89	13.12	3.096	43.73	F-TEST =0.068
	Joint family	3	13.00	3.464	43.33	
	Extended family	5	13.00	4.899	43.33	P= 0.980
	Single-parent family	3	12.33	2.517	41.1	
Education of the mother	Illiterate	9	12.00	3.041	40	F-TEST = 0.579
	Primary & Secondary education	66	13.05	3.349	43.5	P= 0.630
	PU or Equivalent course	16	13.56	2.732	45.2	
	Degree	9	13.67	2.398	45.57	
Occupation of the mother	Private employee	6	11.67	3.386	38.9	F-TEST = 0.531
	Government employee	14	13.57	2.623	45.23	
	Self-employed/business	5	12.80	4.868	42.67	P= 0.662
	Unemployed	75	13.13	3.1211	43.77	
Income of the family (Monthly)	Less than Rs. 5000/-	20	13.35	2.907	44.5	F-TEST = 2.115
	Rs. 5000 to 10000/-	40	12.18	2.978	40.6	
	Rs. 10000 to 15000/-	21	13.17	2.741	45.7	P= 0.103
	More than Rs.15000/- above	19	14.05	3.808	46.83	
Place of residence	Urban	70	13.19	3.368	43.97	t- TEST = 0.463
	Rural	30	12.87	2.583	42.9	P= 0.644
Age of attaining menarche	11-14 years	55	13.4	3.364	44.67	t-TEST = 1.091
	15-18 years	45	12.71	2.841	42.3	P= 0.278
History of previous exposure to health teaching/ seminar/ workshops on irregular menstruation	Yes	22	13.55	3.097	45.17	t-TEST = 0.768
	No	78	12.96	3.164	43.2	P= 0.444
Source of information on irregular menstruation	Mass media	13	13.08	3.095	43.6	F-TEST = 1.878
	Parents and family members	71	13.46	2.961	44.8	P= 0.138
	Health workers	8	11.25	2.435	37.5	
	Others	8	11.62	4.689	38.73	
Experience of menstrual irregularities	Yes	57	13.02	3.523	43.4	t-TEST = 0.06
	No	43	13.19	2.594	43.97	P= 0.792
Practice of home remedial measures	Yes	9	12.89	2.369	42.97	t-TEST = 0.2
	No	91	13.11	3.220	43.7	P= 0.842
Habits	Dancing & Music	31	13.39	2.940	44.63	
	Sports activities	7	12.14	3.237	40.47	F-TEST = 0.326
	Reading, drawing and painting	52	13.10	3.351	43.67	P= 0.807
	Others	10	12.80	2.860	42.67	

SECTION-III: ASSOCIATION BETWEEN LEVEL OF KNOWLEDGE AND THEIR DEMOGRAPHIC VARIABLES

N= 100

Demographic variables		(N)	Level of knowledge			Chi Square Test
			Adequate	Moderately adequate	Inadequate	
Age	14-16 years	24	9	2	13	Chi Square value= 4.327
			37.5%	8.3%	54.2%	
	16-18 years	75	29	17	29	P= 0.364
			38.7%	22.7%	38.7%	
	18-20 years	1	0	0	1	
			.0%	.0%	100%	
Religion	Hindu	93	32	18	43	Chi Square value= 7.834
			34.4%	19.4%	46.2%	
	Muslim	7	6	1	0	

			85.7%	14.3%	.0%	P= 0.02
Type of family	Nuclear family	89	32	19	38	Chi Square value= 4.217
			36.0%	21.3%	42.7%	
	Joint family	3	2	0	1	P= 0.647
			66.7%	.0%	33.3%	
	Extended family	5	3	0	2	
			60.0%	.0%	40.0%	
	Single-parent family	3	1	0	2	
			33.3%	.0%	66.7%	
Education of the mother	Illiterate	9	2	1	6	Chi Square value= 4.435
			22.2%	11.1%	66.7%	
	Primary & Secondary education	66	25	12	29	P= 0.618
			37.9%	18.2%	43.9%	
	PUor Equivalent course	16	8	3	5	
			50.0%	18.8%	31.2%	
	Degree	9	3	3	3	
			33.3%	33.3%	33.3%	
Occupation of the mother	Private employee	6	2	1	3	Chi Square value= 1.83
			33.3%	16.7%	50.0%	
	Government employee	14	5	3	6	P= 0.935
			35.7%	21.4%	42.9%	
	Self-employed/business	5	3	0	2	
			60.0%	.0%	40.0%	
	Unemployed	75	28	15	32	
			37.3%	20.0%	42.7%	
Income of the family (Monthly)	Less than Rs. 5000/-	20	7	5	8	Chi Square value= 7.455
			35.0%	25.0%	40.0%	
	Rs. 5000 to 10000/-	40	11	6	23	P=0.281
			27.5%	15.0%	57.5%	
	Rs. 10000 to 15000/-	21	10	5	6	
			47.6%	23.8%	28.6%	
	More than Rs.15000/- above	19	10	3	6	
			52.6%	15.8%	31.6%	
Place of residence	Urban	70	28	14	28	Chi Square value= 0.857
			40.0%	20.0%	40.0%	
	Rural	30	10	5	15	P= 0.652
			33.3%	16.7%	50.0%	
Age of attaining menarche	11-14 years	55	24	10	21	Chi Square value= 1.725
			43.6%	18.2%	38.2%	
	15-18 years	45	14	9	22	P= 0.422
			31.1%	20.0%	48.9%	
History of previous exposure to health teaching/ seminar/ workshops on irregular menstruation	Yes	22	10	3	9	Chi Square value= 0.868
			45.5%	13.6%	40.9%	
	No	78	28	16	34	P= 0.648
			35.9%	20.5%	43.6%	
Source of information on irregular menstruation	Mass media	13	5	4	4	Chi Square value= 6.803
			38.5%	30.8%	30.8%	
	Parents and family members	71	29	14	28	P= 0.339
			40.8%	19.7%	39.4%	
	Health workers	8	2	0	6	
			25.0%	.0%	75.0%	
	Others	8	2	1	5	
			25.0%	12.5%	62.5%	
Experience of menstrual irregularities	Yes	57	22	9	26	Chi Square value= 0.942
			38.6%	15.8%	45.6%	
	No	43	16	10	17	P= 0.624
			37.2%	23.3%	39.5%	
Practice of home remedial measures	Yes	9	3	2	4	Chi Square value= 0.116
			33.3%	22.2%	44.4%	
	No	91	35	17	39	P= 0.944
			38.5%	18.7%	42.9%	

Habits	Dancing & Music	31	15	4	12	Chi Square value= 3.086
			48.4%	12.9%	38.7%	
	Sports activities	7	2	1	4	P= 0.798
			28.6%	14.3%	57.1%	
	Reading, drawing & painting	52	17	12	23	
			32.7%	23.1%	44.2%	
	Others	10	4	2	4	
			40.0%	20.0%	40.0%	

DISCUSSION

The study revealed that most adolescent girls had inadequate knowledge of irregular menstruation, highlighting the need for targeted educational interventions. The information guide sheet helped bridge this knowledge gap. Significant associations were found between knowledge levels and selected sociodemographic variables. This emphasizes the importance of early awareness and health education during adolescence to promote good menstrual health.

REFERENCE:

[1] Wong's Nursing Care of Infants and Children. 7th Editions. Mosby Publications. 846-849

[2] D. C. Dutta, Textbook of Gynaecology including contraception, 4th edition, New Central Book Agency, 2006. 46,47

[3] Irregular periods, free encyclopaedia. Available form. http://www.irregularmenstrualcycle.com

[4] Menstruation in Girls and Adolescents: Using the Menstrual Cycle as a vital sign. Paediatric volume 118, published on 2006, Nov 1.

[5] Women's Health problems, Women's Menstrual Period Problems, Women Hormones Menstrual cycle problem, April 5, 2011. Available form: http://women-problem.com

[6] Irregular menstrual cycles: Factors that affect period, published on 2010, Feb 3.