

A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge and Practice Regrading Non-Pharmacological Management of Primary Dysmenorrhea Among Adolescent Girls in Selected PU College, Bengaluru

¹Mrs. Divya B C, Ph.D. Scholar, Sri Balaji Vidyapeeth, (Deemed to be University),

Puducherry, Professor, Sri Kalabyraweshwara Swamy College of Nursing, Bangalore.

²Dr. Poongodi V, Professor, Department of OBG Nursing, Kasturba Gandhi Nursing College, Sri Balaji Vidyapeeth (Deemed to be University), Puducherry.

³Mr. Sathish. A.S, Nursing Officer, BMCRI, Bangalore.

⁴Mrs. Pankaja K E, Professor, Child Health Nursing, Padmashree Institute of Nursing, Bangalore, Ph.D. Scholar, Sri Balaji Vidyapeeth, (Deemed to be University), Puducherry.

⁵Mr. Halaswamy K M G, Professor, Dept of Medical surgical nursing, SJM Institute of Nursing Sciences, Chitradurga, Ph.D. Scholar, Sri Balaji Vidyapeeth, (Deemed to be University), Puducherry.
Correspondence Author: ²Dr. Poongodi V

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ABSTRACT:

Mensural Cycle or Uterine cycle occurs regularly to puberty to Menopause. Menstrual cycle is refers to the monthly discharge through the vagina of blood or other substances including unfertilized ovum from the uterus in Non-Pregnant Female. Primary Dysmenorrhea refers to Painful Menstrual Cramps that occur without any Underlying Medical Condition causing the Pain and Assess Knowledge and Practice regarding Non-Pharmacological Management of Primary Dysmenorrhea, to determine Co- relation between Knowledge and Practice, to find out the Association between the Pre-test Knowledge and Practice with their Selected Socio Demographic Variables. The tool was developed in the form of three section as Demographic data, Self- Administered Questionnaire and Checklist. The simple Convenience Sampling Technique was used for selecting 60 Adolescent Girls from Selected PU College, Bengaluru in September 2024. The Results showed that, the Knowledge Scores of Adolescent Girls was, found Majority of Sample 60 (100%) were having Inadequate Knowledge on Primary Dysmenorrhea whereas none having Adequate Knowledge and Moderate Adequate Knowledge on Primary Dysmenorrhea. Assessment of Practice among Adolescent Girls Regarding Primary Dysmenorrhea that, the Majority of Sample 49 (81%) were having Average Practice on Primary Dysmenorrhea whereas 11 (18.34%) were having Good Practice and None of the Sample were having Poor Practice on Primary Dysmenorrhea. The used KARL PEARSON CORRELATION COEFFICIENTS (r) to identify the Relationship between Knowledge and Practice

Score. There was Moderate Positive Correlation between Knowledge and Practice ($r = 0.55$, $p = 0.0001$). There was an association between Pre- Test Knowledge of Adolescent Girls with Demographic variables. And it was observed that there was significant Association with Pre- Test Practice of Adolescent Girls Age ($\chi^2=7.86$) at 5% significance level. The study concluded that Pre-Test Knowledge and practice of Adolescent Girls is Inadequate Regarding Primary Dysmenorrhea. After providing intervention through a Structured Teaching Program both Knowledge and Practice of Adolescent Girls has improved.

Keywords: Effectiveness, Structured Teaching Programme, Knowledge, Practice, Non- Pharmacological Management, Primary Dysmenorrhea, Adolescent Girls.

Introduction

Adolescence is the Period of transition from Childhood to Adulthood, which usually takes place between the Ages of 10 and 19 years. Its time of Significant Physical and Psychological changes, and it's important for Adolescents to receive Education and Information to support their Health and Development. Adolescent Girls are young Women who are experiencing the Physical and Emotional changes of Puberty and the Transition from Childhood to Adulthood. Menstruation is the viable Manifestation of cyclic Physiologic Uterine Bleeding due to Shedding of the Endometrium following invisible interplay of Hormones mainly through Hypothalamic-Pituitary Ovarian axis. Menarche is defined as the first Menstrual Period in a Female Adolescent. Menarche typically occurs between the ages of 10 and 16 with the average age of onset being 12.4 years. Dysmenorrhea is a cyclic pain associated with Menstruation-Painful Menstruation that significantly interferes with day-to-day pursuits. It is a common Gynaecological Disorder affecting 60% of Menstruating Female. It is further classified into two i.e. Primary Dysmenorrhea and Secondary Dysmenorrhea.

Primary Dysmenorrhea refers to Menstrual Pain or Cramps that occur in the Absence of any underlying Medical Condition. It typically starts shortly before or at the onset of Menstruation and can be characterized by Lower Abdominal Cramping that may radiate the lower back or thighs. It is a common condition among

Prostaglandins during Menstruation, which cause the Uterus to contract more forcefully. Symptoms can range from mild to severe and may include Nausea, Vomiting, Diarrhoea, Headache and Fatigue. Adolescent Girls constitute one-fifth of the Female Population in the World. Girls below 19 years comprise one quarter of India's Population. There are estimated 120 million Adolescent Girls in India. Dysmenorrhea incidence is 79.4% among Adolescent Girls in India. The incidence of Dysmenorrhea is 70.2% in South India and 62% in Karnataka. It has also been reported that probably 5-10% of girls in their late teens suffer from severe Spasmodic Dysmenorrhea interrupting their Educational and Social Life.

Primary Dysmenorrhea causes include high levels of Prostaglandin Production, Excessive or Abnormal Uterine Contraction, Changes in Blood Flow to Uterus, Oxytocin release and Nerve Involvement. Risk factors for Primary Dysmenorrhea are Early Menarche, Heavy Menstrual Flow, Family History, Smoking, Obesity, Sedentary lifestyle, High stress levels, diet (suggests that diet high in inflammatory foods such as meat, oil, sugar, and salt can contribute to period cramps), Physical condition, Dehydration, Environmental toxins. Primary Dysmenorrhea Symptoms include Tension, Depressed mood, crying spells, Mood swings, Poor Concentration, change in libido, Abdominal bloating, Breast tenderness, Acne flare-ups, constipation or diarrhoea, Weight gain, Headache, Social Withdrawal, Appetite changes,

Joint or muscle pain, Fatigue, Nausea and vomiting, cramping in lower abdomen, Radiating pain.

Management of Primary Dysmenorrhea involves both Pharmacological and Non-pharmacological management. Pharmacological Management are: Analgesics [Acetaminophen, Dolo, Paracetamol, and NSAIDS]. Non-Pharmacological Methods offer a Holistic Approach to managing this discomfort, focusing on lifestyle adjustments and alternative therapies. By integrating techniques such as Heat therapy, Exercise (aerobic, anaerobic, yoga: Balasana {Child's Pose}, Marjaryasana-Bitilasana {Cat-Cow Pose}, Bhujangasana {Cobra Pose}, Pranayama {breathing exercises}, and meditations, dietary modifications, relaxation techniques, acupuncture, herbal remedies {ginger, chamomile, Chinese herbs} and Massage Therapy {ad. Individuals can potentially alleviate symptoms and enhance their overall well-being during Menstruation. This introduction sets the stage for exploring various non-pharmacological approaches to address Primary Dysmenorrhea effectively.

Exercise includes both Aerobic exercises [Walking, Swimming, Cycling, Low-impact aerobics classes, Elliptical training], Anaerobic exercises [Light weightlifting, Bodyweight exercises, Pilates, Resistance band exercises, Core strengthening exercises] and Yoga [Balasana, Marjaryasana-Bitilasana, Bhujangasana, Pranayama] and meditation which are beneficial for managing primary dysmenorrhea.

Heat Therapy is the application of Heat to the lower abdomen using Heating pads or warm baths which relief the pain. Heat therapy is a common and effective method for alleviating pain associated with Dysmenorrhea.

Dietary Management plays a vital role in alleviating symptoms of Primary Dysmenorrhea. Foods which are rich in Magnesium like Green leafy vegetables (Spinach, Kale), Nuts and Seeds (Almonds, Sunflower seeds), Whole grains and Legumes helps in easing menstrual cramps. And Omega-3 fatty acids help in incorporating with inflammation and pain associated with

menstruation. Some of the herbs like ginger, fennel, chamomile, raspberry leaf tea, pycnogenol, Chinese herbs help with primary dysmenorrhea.

Massage is defined as the scientific manipulation done with hands on the soft tissues of the body in order to produce effects on the nervous, muscular and circulatory system to improve function. Some of the massages include abdominal massage, lower back massage, leg massage, and foot massage. Interest and attraction to alternative and complementary therapies is growing and it is looked at as a new approach to health care, and alternative therapies are often known as comfort measures or non-pharmacologic methods for control pain. During dysmenorrhea application of heat, or cold, acupressure, acupuncture, aroma therapy, music and imagery therapy and transcutaneous electrical nerve stimulation (TENS) for chronic pain.

Proper Menstrual Hygiene practices can help alleviate Primary Dysmenorrhea Symptoms. Here are some essential practices. Change Sanitary products regularly, Change Pads or Tampons every 4-8 hours to prevent bacterial growth and odour, Use breathable sanitary products, opt for cotton or Bamboo-based sanitary products to reduce Irritation and Discomfort, Practice good hygiene, Wash hands before and after handling Sanitary products, and clean the genital area with mild soap and water, By following these Menstrual Hygiene practices, Adolescent Girls with Primary Dysmenorrhea can reduce discomfort, prevent infections, and improve overall well-being. Avoid scented products: Refrain from using scented soaps, bubble baths, or sanitary products, as they can irritate the genital area.

These comfort measures are directed at decreasing tension and pain during menstruation. Hence, we can strongly recommend nurses working in the main stream to study body work techniques such as acupressure, shiatsu and incorporate them in to practice for the purpose of pain relief augmenting the effects of pain medication and facilitating comfort.

Need for Study

The Epidemiology of Primary Dysmenorrhea is difficult to establish since it is a symptom that is perceived differently by different Women and also diversity in Diagnostic criteria that is often used. The Prevalence estimates range from 25 to 90% among Women and Adolescents (Okusanya, 2009). Studies from India reported the Prevalence range between 50 to 87.8% (George & Bhaduri, 2002; Patel, 2006; Nair, 2007; Singh, 2008; Agarwal & Agarwal, 2010). Other studies reported that Dysmenorrhea affects up to 90% of Women of childbearing age to varying degrees (Weissman, 2004). Pain is significant in 5-20% who report severe Dysmenorrhea or pain that prevents them from participating in their usual activities. In the United States, the annual economic loss has been estimated as 600 million work hours' worth 2 billion dollars.

The Prevalence of Primary Dysmenorrhea among School-going Girls in Tribal Populations has been found to be High in Several Studies. For example, a Study conducted in Rural Areas of West Bengal, India found that 86.8% of Adolescent Girls reported experiencing Dysmenorrhea [7]. Another study conducted among Girls in the tribal Population of Gujarat, India found that 78.1% of the Girls experienced Dysmenorrhea [8]. Similarly, a study conducted in a tribal district of Maharashtra, India found that 77% of the girls reported experiencing Dysmenorrhea.

The world is home to 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. Adolescence [10-19 years] is a period of growth which involves a stage of developmental transition and a bridge between childhood and adulthood. Nearly 20-22% of world population comprises of adolescents. Women who fall in the reproductive age group especially adolescent girls are neglected in reality. Nearly half of the adolescent girls are unaware of the phenomena of menstruation prior to its onset and are therefore scarred at the time

of its onset. They also don't disclose their problems related to menstruation to anyone. The prevalence of dysmenorrhea is very high and at least 50-90% of the women experience this problem throughout their reproductive years. Painful menstruation also called as primary dysmenorrhea is characterized by spasmodic or colicky pain and is worse on I, II, III days of menses. It usually occurs in girls and young females and tends to decrease with increasing age.

Adolescent Girls constitute one-fifth of the female population in the world. Girls below 19 years comprise one quarter of India's population. There are estimated 120 million Adolescent Girls in India.

Dysmenorrhea incidence is 79.4% among adolescent girls in India. The incidence of dysmenorrhea is 70.2% in South India and 62% in Karnataka. It has also been reported that probably 5-10% of girls in their late teens suffer from severe spasmodic dysmenorrhea interrupting their educational and social life.

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. A variety of non-pharmaceutical measures have been tried for reducing the pain during Menstruation such as Relaxation Therapy, Breathing Techniques, Massage Therapy, Music therapy, application of Heat and cold, Acupressure and Acupuncture etc. Many studies have also proved that Acupressure helps in reducing the Primary Dysmenorrhea.

Objectives

1. To Assess the Pre-test Knowledge and Practice of Adolescent Girls Regarding the Non-Pharmacological Management of Primary Dysmenorrhea in Selected PU College, Bengaluru.
2. To Determine Co-relation between Pre-test Knowledge and Practice in Adolescent Girls

Regarding Primary Dysmenorrhea in Selected PU College, Bengaluru.

3. To Assess the Post-test Knowledge and Practice of Adolescent Girls Regarding the Non-Pharmacological Management of Primary Dysmenorrhea in Selected PU College, Bengaluru.
4. To Determine Co-relation between Post-test Knowledge and Practice in Adolescent Girls Regarding Primary Dysmenorrhea in selected PU College, Bengaluru.
5. To Differentiate Pre-test and Post-test Knowledge of Adolescent Girls regarding the Non-Pharmacological Management of Primary Dysmenorrhea in Selected PU College, Bengaluru.
6. To differentiate Pre-test and Post-test Practice of Adolescent Girls regarding the Non-pharmacological Management of Primary Dysmenorrhea in Selected PU College, Bengaluru.
7. To find on Association between the Pre-test Knowledge and Practice Regarding Non-Pharmacological Management of Primary Dysmenorrhea with their Selected Socio Demographic Variables in Selected PU College, Bengaluru.

Hypothesis:

H1: There is a Significant Co-relation between Pre-test Knowledge and Practice Regarding Non-Pharmacological Management of Primary Dysmenorrhea among Adolescent Girls in Selected PU College, Bengaluru.

H2: There is a Significant Differentiation between Pre-test and Post-test Knowledge and Practice Score regarding Non-Pharmacological Management of Primary Dysmenorrhea among Adolescent Girls in Selected PU College, Bengaluru.

H3: There is a Significant Co-relation between Post-test Knowledge and Practice Regarding Non-Pharmacological Management of Primary Dysmenorrhea among Adolescent Girls in Selected PU College, Bengaluru.

H4: There is a Significant Association between Pre-test Knowledge and Practice Regarding Non-Pharmacological Management of Primary

Dysmenorrhea among Adolescent Girls with their Selected Socio Demographic Variables.

Review Literature

A cross-sectional study was conducted and a systematic random sampling technique was used to select 348 study participants. Standardized self-administered questionnaires were used to obtain relevant data. The severity of pain was assessed using a verbal multidimensional Scoring system and Numerical Pain Rating Scale method. Descriptive statistics and logistic regression analysis were performed. The prevalence of dysmenorrhea was 80% (277). Of those affected by dysmenorrhea, using the verbal multidimensional scoring system, 47.6% (132) were found to have mild pain, 39.7% (110) had moderate pain, and 12.6% (35) had severe pain. However, using the Numeric Pain Rating Scale (NPRS), 21.7% (60) were found to have mild pain, 33.2% (92) had moderate pain, 37.5% (104) had severe pain, and 7.6% (21) had very severe pain.

A cross-sectional study was conducted to assess the knowledge and practice on primary dysmenorrhea among 550 adolescent girls of slums in Siliguri city, India. The sample were selected using non-random quota convenient sampling method. Data collection done by questionnaire method. A one-point score was assigned to the correct answer of knowledge items and right opinion for practice items. There is a r value of both pre-test knowledge and practice, post-test knowledge and practice are 0.33, 0.46. There is a significant level of $p < 0.05$. Result of the study shown that 26.6% of sample having poor knowledge, 50.2% of sample Having moderate knowledge, 23.2% of sample having good knowledge and 21.5% of sample having poor practice, 47.5 % of sample having moderate practice and 31% of sample having good practice. The study concluded that most of the students having moderate knowledge and moderate practice.

A cross-sectional study was conducted among adolescent girls (10-19 years) residing in a tribal area of Nagpur District from January to March 2022 Study of Menstrual Hygiene Practices

Among Adolescent Girls in a Tribal Area of Central India among 272 adolescent girls using simple random sampling method. The study result shows that around 73.79% of girls were using sanitary pads, while 26.21% of girls were using clothes and use of sanitary pads was significantly more in late adolescent girls than in early adolescent girls ($\chi^2=14.97$, $p=0.0001$), girls who have literate mothers than girls with illiterate mothers ($\chi^2=5.17$, $p=0.02$), and girls belonging to higher socioeconomic classes (class I, II, III) than lower ones (class IV, V) ($\chi^2=44.23$, $p<0.0001$) the study concludes the tribal adolescent girls still don't exercise proper hygiene throughout their periods. During menstruation, the majority of girls are still subjected to various restrictions.

A quasi-experimental study was to assess the effectiveness of yoga on primary dysmenorrhea. Study was conducted in selected schools and 300 adolescent girls. Data was collected by using Numerical pain intensity scale for pain and Likert scale. Pretest was conducted during menstruation and Yoga therapy was given to experimental group for 3 months and for control group no intervention was given. The post-test was conducted after 3 subsequent menstrual cycles. The major findings of the study showed that the pain scores of primary dysmenorrhea were significantly different at 0.001 level of significance among experimental and control group, and 71.3% of experimental group had no primary dysmenorrhea 28.7% mild pain and none of the them having moderate or severe pain after yoga application. Control group remains the same. Result concluded that yoga therapy was one of the definite alternative therapies to treat primary dysmenorrhea.

A quantitative study conducted on the effectiveness of self-care and lifestyle interventions in primary dysmenorrhea in Australia on 2017. Twenty-three trials including 2302 women were eligible and included in the meta-analysis. Results shows that all interventions showed a reduction in menstrual pain symptoms; exercise ($g = 2.16$, 95% CI 0.97 to 3.35) showed the largest effect size, with heat ($g = 0.73$, 95% CI 0.06 to 1.40) and acupressure

($g = 0.56$, 95% CI 0.10 to 1.03) showing more moderate effect sizes. Exercise ($g = 0.48$, 95% CI 0.12 to 0.83) and heat ($g = 0.48$, 95% CI 0.10 to 0.87), were more effective than analgesics in reducing pain intensity, whereas acupressure was significantly less effective ($g = -0.76$, 95% CI -1.37 to -0.15). The study concludes that exercise showed large effects, while acupressure and heat showed moderate effects in reducing menstrual pain compared to no treatment. Both exercise and heat are potential alternatives to analgesic medication.

Methodology

The research approach was Quantitative research type; one group Pre-test Post-test was used. The study setting was, Govt. PU College, RPC Layout Bengaluru. The target population was Adolescent Girls who are studying in Selected Govt. PU College at RPC Layout, Bengaluru consisted of 60 study subjects. Simple convenience sampling technique was used in the study.

a) Inclusion Criteria:

- Adolescent Girls who are studying in Selected Govt. PU College of Bengaluru.
- Adolescent Girls who are available during Data Collection.
- Adolescent Girls who are suffering from Primary Dysmenorrhea.

b) Exclusion Criteria:

- Those who are not willing to participate in the Research Study.
- Adolescent Girls who have previous exposure to classes on Effect of Non-Pharmacological Management of Primary Dysmenorrhea.
- Adolescent Girls who are not available during Data Collection.
- Adolescent Girls who are not having Complaints of Cramping and Pain in Lower Abdomen during Menstruation.

Methods of Data Collection: Data Collection Method is method which include Perceiving, Reacting, Interacting, Reflecting, Attaching, Meaning and Recording. The method which is selected for the study is "Planned Teaching Method".

Tool Description: The Tool which is used for Collecting Data for the present study is Investigator developed tool modified from Self-administrated Questionnaire and Checklist Method for Non-pharmacological Management of Primary Dysmenorrhea.

Ethical clearance was obtained from the Research and Institutional Ethical Committee. The formal permission and ethical clearance were also obtained from Principal of Govt. PU college RPC layout, Bengaluru. Informed Consent was obtained from the sample of the study after explaining about the purpose of study and assuring them of confidentiality. No Ethical issues were arisen during the study.

Results

The data obtained describes the Characteristics pertaining the Age, Religion, Area of Living, Stream of course, Age at menarche, Duration of menstruation, Regularity of menstrual cycle. Distribution of Adolescent girls according to their age as a majority of girls (63.33%) were in the age group 15-16 years, 36.67% were in the age group 17-18 years.

Distribution of Adolescent girls according to their Religion as majority of girls (65%) were Hindu and 28.33% belongs to Christians and 6.67% Muslims. Distribution of Adolescent girls according to their Area of living as majority of girls (78.33%) from Urban and 21.67% were from Rural.

Distribution of Adolescent Girls according to their Stream of course as majority (83.33%) were Commerce and 16.61% were from science stream. Distribution of Adolescent girls according to Age of Menarche as a majority (56.67%) were from 13-14 years, 20% were from 11-12 years, 1.67% were from less than 14 years and 1.2% were from greater than 14 years.

Distribution of Adolescent girls according to Duration of Menstruation majority (36.66%) were 3-4 days, 33.33% were from 5-6 days, 18.33% were from greater than 6 days, 11.67% were from 1-2 days. Distribution of Adolescent Girls according to Regularity of Menstrual cycle, Majority (81.67%) had Regular cycle, 15% had Irregular cycle and 3.33% had cycle associated with Complications.

Table no. 1: Descriptive Statistics about Pre-test Knowledge Scores (n=60)

Pre-test Knowledge	Mean	SD	Median	Minimum score	Maximum score	Range	Mean (%)
Scores	8.75	1.42	09	06	12	06	27.34

Maximum Score=32

Minimum Score=0

Descriptive Statistics of Pre-test Knowledge Scores. It was found that the Mean value was 8.75, Standard Deviation was 1.42, Median score

was 9, Minimum score was 6, Maximum score was 12, Range of score was 6 and Mean Percentage was 27.34%.

Table no. 2: Descriptive Statistics of Pre-Test Practice Scores (n=60)

Pre-test practice	Mean	SD	Median	Minimum	Maximum	Range	Mean (%)
Scores	9.23	1.56	9	6	13	7	57.69

Maximum Score=16

Minimum Score=0

Descriptive Statistics of Pre-test Practice Scores. It was found that the Mean value was 9.23, Standard Deviation was 1.56, Median score was

9, Minimum score was 6, Maximum score was 13, Range of score was 7 and Mean (%) was 57.69.

Table no. 3: Comparison of Frequency & Percentage Distribution of Pre-test and Post-test Knowledge Scores (n=60)

Knowledge Scores	Pre-test		Post-test	
	Number	%	Number	%
Inadequate	60	100%	04	6.66%
Moderately Adequate	-	-	47	78.34%
Adequate	-	-	09	15%
Total	60	100%	60	100%

Maximum Score=32**Minimum Score=0**

Pre-test (100%) had Inadequate Knowledge while in Post-test 6.66% had Inadequate Knowledge, 78.34% had Moderate Knowledge and only 15% got Adequate Knowledge.

Table no. 4: Comparison of Frequency & Percentage Distribution of Pre-Test and Post-Test Practice Scores (n=60)

Practice Scores	Pre-Test		Post-Test	
	Number	%	Number	%
Poor	0	0	0	0
Average	49	81.66%	0	0
Good	11	18.34%	60	100%
Total	60	100%	60	100%

Maximum Score=16**Minimum Score=0**

Poor Practice of subjects during Pre-test and Post-test, while there was 81.66% in pre-test while none in Post-Test, and had good 18.34 in Pre-test and 100% in Post-test.

Demographic variables such as age in year, religion, area of residence Stream of Course, types of family, dietary habits, age at menarche, duration of menstruation, regularity of menstrual cycle are not statistically significant. There was a Significant Association between the Pre-test Knowledge Score with selected Socio Demographic Variables of Adolescent girls with Previous Source of Information ($\chi^2 = 8.38$). The calculated value of Chi-Square is more than the tabulated value of Chi-Square at 5% Level of significance. Hence researcher concludes that Hypotheses (H4) is accepted.

Demographic variables such as religion, area of residence Stream of Course, types of family, dietary habits, age at menarche, duration of menstruation, regularity of menstrual cycle are not statistically significant. There was significant associated between pre-test practice score with selected socio demographic variables of adolescent girls with age in year ($\chi^2 = 7.86$) and previous sources of knowledge is ($\chi^2 = 11.05$). The calculated value of Chi-Square is more than the tabulated value of Chi-Square at 5% level of significance. Hence Researcher concluded that hypothesis (H4) is accepted.

Recommendations:

- The Study can be replicated on a larger sample also at different Settings to generalize the Study.

- A Comparative Study can be conducted to assess the Knowledge and Practice Regarding Non-Pharmacological Management of Primary Dysmenorrhea.
- A Similar Study can be conducted using Control and Experimental Group to know the Effectiveness of Teaching Session.

Conclusion

The Study was Conducted among 60 Adolescent Girls in Selected PU college Bangalore to Assess the Effectiveness of Structured Teaching Programme on Knowledge and Practice Regarding Non-Pharmacological Management of Primary Dysmenorrhea and the Researcher Concluded that Adolescent Girls have Inadequate Knowledge and Average Practice on Primary Dysmenorrhea, during Pre-test after the

Intervention 6.6% having Inadequate Knowledge and 0% having Poor Practice. The result of the Study shows that non-pharmacological method is an Effective way to reduce Primary Dysmenorrhea among Adolescent Girls.

During pre-test 0% Samples have Poor Performance and 81.6% have Average Practice and 18.3% having Good Practice. In post-test, 15 % respondent in the Post-test are having Adequate Knowledge. Further only 78.34 % are having Moderate Knowledge, 6.66 % have Inadequate Knowledge. During Post-test 100% having Good Practice and 0% having Poor and Average Practice. So, the result of the Study revealed that there is improvement in the level of Knowledge by Adolescent Girls after giving planned Teaching Method.

References

- Merck Manual, Adolescent Development, Available on <https://www.merckmanuals.com/home/children-s-health-issues/growth-and-development/adolescent-development>).
- Svanberg, L., Ulmsten, U, The incidence of primary dysmenorrhea in teenagers. Arch. Gynecol. 230, 173–177 (1981) Available on <https://doi.org/10.1007/BF02111800>
- Samuel RM Reynolds, cause of primary dysmenorrhea, Available on <https://www.nhs.uk/conditions/period-pain>
- Dawn Durain, Primary dysmenorrhea management, Available on https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=management+of+primary+dysmenorrhea&oeq=managem#d=gs_qabs&t=1732873606903&u=%23p%3DHE9r6KPtkf4
- Zahra Mohebbi Dehnavi, Farzaneh Jafarnejad, Zahra, The Effect of aerobic exercise on primary dysmenorrhea: Available on https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=exercises+on+primary+dysmenorrhea&oeq=exercises+on+primary+dys#d=gs_qabs&t=1732872691821&u=%23p%3D4ksYG893-JkJ
- Junyoung Jo, Heat therapy for primary dysmenorrhea, Available on <https://www.nature.com/articles/s41598-018-34303-z>
- Tori Hudson, Using nutrition to relieve primary dysmenorrhea, Available on https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=diet+and+nutrition+on+primary+dysmenorrhea&btnG=#d=gs_qabs&t=1732872997136&u=%23p%3Dy70c73gekIEJ
- Michelle Proctor, Transcutaneous electrical nerve stimulation for primary dysmenorrhoea, Available from https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=transcutaneous+electrical+nerve+stimulation+on+primary+dysmenorrhea&btnG=#d=gs_qabs&t=1732873148335&u=%23p%3DpJJ6r7dtnAkJ
- Ladan Kashani, Herbal medicine in the treatment of primary dysmenorrhea, Available on https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=herbal+remedies+on+primary+dysmenorrhea&btnG=#d=gs_qabs&t=1732873261022&u=%23p%3D7wGLqGC3300J
- Triana Indrayani, Novita Lusiana, The Effect of Therapy Massage Effleurage on Primary Dysmenorrhea in Adolescents, Available on https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=message+therapy+on+primary+dysmenorrhea

ea&btnG=&oq=message+therapy+on+primary+dys#d=gs_qabs&t=1732873420500&u=%23p%3DreZghFOnO_EJ

Menstrual hygiene practice. Available from <https://www.cdc.gov/hygiene/about/menstrual-hygiene.html>

Pranay Wal, non-pharmacological intervention for primary dysmenorrhea, Available on https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=conclusion+on+non+pharmacological+methods+on+primary+dysmenorrhea&oq=conclusion+on+non+pharmacological+methods+o.n+primary+dysmenorr#d=gs_qabs&t=1732875311093&u=%23p%3Dy4F2AQziYKEJ

Primary dysmenorrhea in worldwide, available from, <https://pmc.ncbi.nlm.nih.gov/articles/PMC8943241/>

Prevalence of primary dysmenorrhea Available from, https://www.researchgate.net/publication/375801071_Prevalence_of_Primary_Dysmenorrhea_among_School-Going_Girls_in_Tribal_Populations_in_Tamilnadu_India