



ISSN: 0975-833X

RESEARCH ARTICLE

A STUDY TO ASSESS THE KNOWLEDGE REGARDING HOME REMEDIES TO RELIEVE DYSMENORRHEA AMONG ADOLESCENT GIRLS IN SELECTED SCHOOLS OF LUDHIANA PUNJAB

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ARTICLE INFO

Article History:

Received 29th July, 2014

Received in revised form

04th August, 2014

Accepted 04th September, 2014

Published online 25th October, 2014

Key words:

Dysmenorrhea,
Adolescent girls,
Knowledge,
Home remedies.

ABSTRACT

Adolescence is a period from childhood to adulthood and is characterized by a spurt in physical, endocrinial, emotional and mental growth, with a change from complete dependence to relative independence. The period of adolescence for a girl is a period of physical and psychological preparation for safe motherhood. As the direct reproducers of future generations, the health of adolescent girls influences not only their own health, but also the health of the future population. Almost a quarter of India's population comprises of girls below 20 years. One of the major physiological changes that takes place in adolescent girls is the onset of menarche which is often associated with problems of irregular menstruation, excessive bleeding and dysmenorrhea. Of these dysmenorrhea is one of the common problems experienced by many adolescent girls. Therefore, a descriptive study to assess the knowledge regarding home remedies to relieve dysmenorrhea among adolescent girls in selected schools of Ludhiana Punjab was undertaken with the objectives: (1) To assess the knowledge regarding home remedies to relieve dysmenorrhea among adolescent girls (2) To identify the relationship of knowledge of adolescent girls with selected variables e.g. age, class, religion, area of residence, age at menarche, duration of menstrual cycle, duration of menstrual period, education of parents, flow of menstruation and sources of information. A non-experimental, descriptive study was conducted in two selected schools of Ludhiana, Punjab. The study sample consisted of total 60 adolescent girls from the selected schools. Data was collected by self structured questionnaire and analyzed by inferential statistics and presented through tables and figures. Findings revealed that maximum (83.3%) adolescent girls had average knowledge followed by (10%) good and (6.67%) had least below average score. Variables i.e. age, class, area of residence, age at menarche, duration of menstrual cycle and duration of menstrual period were found to be non-significant and variables i.e. religion, education of parents, flow of menstruation and source of information were found to be significant.

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INTRODUCTION

Adolescence is a period from childhood to adulthood and is characterized by a spurt in physical, endocrinial, emotional and mental growth, with a change from complete dependence to relative independence. The period of adolescence for a girl is a period of physical and psychological preparation for safe motherhood. As the direct reproducers of future generations, the health of adolescent girls influences not only their own health, but also the health of the future population. Almost a quarter of India's population comprises of girls below 20 years (Klein 1981). One of the major physiological changes that take place in adolescent girls is the onset of menarche which is often associated with problems of irregular menstruation, excessive bleeding and dysmenorrhea. Of these dysmenorrhea is one of the common problems experienced by many adolescent girls (Gupta 2011). The term dysmenorrhea derived

from the Greek word "DYS" meaning difficulty/painful/abnormal, "MENO" meaning month and "RRHEA" meaning flow. Approximately 50% of all women experience dysmenorrhea, more than 50% of teenagers are affected by dysmenorrhea and 10% have severe symptom. This study offers a unique contribution to our profession regarding home remedies of dysmenorrhea and its discomfort. (Uhr Women's Health 2008).

The WHO estimated that 80% of the population in developing countries uses traditional treatment for their primary health care needs. Modern drugs and conventional medicines are often viewed as impersonal emphasizing crisis intervention. It is not only expensive but bring about side effects which are sometimes more dangerous than the disease itself. Home remedies are the commonly used treatment for dysmenorrhea (www.wholebulletin 1999). The true incidence and prevalence of dysmenorrhea are not clearly established in India. In recent times George and Bhaduri concluded that dysmenorrhea (87.87%) is a common problem in India. In Sweden the

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prevalence was >2-4%. Similar findings had been reported by Jayashree and Jayalakshmi in rural married women of Andhra Pradesh. Dysmenorrhea has been estimated to be the greatest cause of the time lost from work and school in United States (Kenneth *et al.*, 1990). Primary dysmenorrhea (PD) is cyclic menstrual pain usually described as "cramping", without an identifiable associated pathology. PD more commonly begins within 2 years after menarche, often accompanied by low backache, nausea and vomiting, headache and diarrhea. Research has shown that women with dysmenorrhea have high levels of prostaglandin hormones known to cause cramping abdominal pain (Basvanthappa 2000).

Adolescence is a rapid growing period when mainly the physical changes are crucial in the development. Most girls (95%) attain menarche between the age group of 10-13 years. Out of this about 50% of menstruating women are affected with dysmenorrhea (Ziegel and Cramley 1986). In dysmenorrhea, pain characteristically begins with onset of menstruation and last for 12 to 72 hours. The pain is often described as "cramps" and intermittently intense. Pain is usually severe on first day of menstruation and gradually diminishes. A study was conducted to explore the prevalence of dysmenorrhea among senior high school girls in Perth Australia, its impact on school, sporting and social activities, students' management strategies and their knowledge of available treatment. The result showed that prevalence was 80%. Out of this 53% of these girls with dysmenorrhea reported that it limited their activities. In particular 37% said that dysmenorrhea affected their school activities (Hillen Ti *et al.*, 1999).

A study was conducted to determine the prevalence of dysmenorrhea among Hispanic adolescent girls, its impact on academic performance, school attendance, sports and social activities and its management. Results showed that 85% were suffering from dysmenorrhea. They also find out that activities affected by dysmenorrhea include class concentration (59%), sports (51%), class participation (50%), socialization (49%), home work (35%), test taking skills (36%) and grades (29%). Treatment taken for dysmenorrhea included rest (58%), medications (52%), heating pad (26%), tea (20%), exercise (15%) and herbs (7%). 14% consulted a physician and 49% saw a school nurse for help with their symptoms (Banikaram *et al.*, 2000). A study had been conducted on the incidence of dysmenorrhea among 1648 adolescent girls of Karnataka. The incidence of dysmenorrhea was 87%. Of these 46.69% had severe problems of perceived pain during menstruation (Avasarala *et al.*, 2008). A study was conducted on those women who followed a low-fat vegetarian diet for two menstrual cycles experienced less pain. Women who are losing too much blood, however, may need meat to help maintain iron levels. Choosing more fish and eggs may be helpful. More than that study has reported less menstrual pain with a higher intake of omega 3 fatty acids (fat compounds found in oily fish such as salmon and tuna). In one study, supplements of fish oil appeared to reduce heavy bleeding in adolescent girls. Treatment followed by taking dietary adjustments starting about 14 days before a period may help some women with certain mild menstrual disorders, such as cramping (Proctor *et al.*, 2006). A cross sectional study with 1092 girls from 15

public secondary schools and 3 ethnic groups were taken. Study was done in university of Malaya, Kuala Lumpur to determine the prevalence of dysmenorrhea, its impact and treatment behaviour of adolescent girls. Overall 74.5% of the girls who had reached menarche had dysmenorrhea. 51.7% of these girls reported that it caused them to miss school and 12% said that it caused poor school performance (Kurian 2000).

MATERIALS AND METHODS

Research Approach

A Descriptive research approach was used to assess the knowledge regarding home remedies to relieve dysmenorrhea among the adolescent girls at selected schools of Ludhiana Punjab.

Research Design

Non-experimental research design was utilized to achieve the objectives.

Independent and Dependent Variables

- a) **Independent Variables:** Age, class, religion, area of residence, age at menarche, duration of menstrual cycle, duration of menstruation period, education of parents, flow of menstruation and source of information.
- b) **Dependent Variables:** Knowledge of adolescent girls' regarding home remedies to relieve dysmenorrhea.

Selection and Description of Field for the Study

The present study was conducted in selected schools (Wylie Memorial Sen. Sec. School and Lal Bahadur Shastri School) of Ludhiana Punjab.

Population

The target population of the study was Adolescent girls of selected schools of Ludhiana Punjab.

Sample and Sampling technique

Total sample was 60 adolescent girls. Selection was done on the basis of Purposive Sampling.

Development and Description of Tool

A self-structured questionnaire was used to assess the knowledge regarding home remedies to relieve dysmenorrhea among adolescent girls. An intensive review of literature, experts' opinion, suggestions of the research panel, researcher's professional experience and informal interview with the adolescent girls' provided the basis for the construction of questionnaire. To accomplish the objectives of the study the questionnaire was constructed in the following parts:

The tool consists of following 2 parts

Part I: Sample Characteristics

This part consists of 9 items for obtaining personal information i.e. Age, religion, class, area of residence, age at menarche,

duration of menstrual cycle duration of menstrual flow, flow of menstruation and source of information.

Part II: structured Questionnaire

This part consists of Structured multiple choice questions for assessment of knowledge regarding home remedies to relieve dysmenorrhea among adolescent girls. This questionnaire consists of 25 multiple choice items, each item consist of one correct answer among the four choices and each correct answer carries one mark.

The questions were related to the following aspects:

Level of knowledge Score

Below average	0-8
Average	9-18
Good	19-25

Criterion Measure

The criterion measure used in the study was knowledge score on regarding home remedies to relieve dysmenorrhea. The knowledge score refers to the total obtained score on knowledge items in structured multiple choice questionnaire by adolescent girls.

Content Validity of the tool

Content validity of the tool was determined by experts' opinion on the relevance of the items. Tool was given to experts from the areas of Child Health Paediatric Nursing, Obstetrical and Gynecological Nursing, Community Health Nursing and Psychiatric Nursing. Changes have been made and the variables were added to the demographic data. Language of questions was changed according to their valuable suggestions.

Ethical Consideration

With the view of ethical consideration the researcher discussed the type and purpose of the study with the principals of selected schools of Ludhiana and written permission was obtained thereafter. Adolescent girls were explained about the purpose of study. An informed verbal consent from adolescent girls was taken. Adolescent girls' were ensured that the information given by them will be kept confidential and will be used purely for research purpose.

Reliability of the Tool

Reliability was computed by split half method i.e. by calculating coefficient of correlation first and then by applying Spearman's Brown Prophecy formula. The reliability of the Questionnaire was r' was 0.77. Hence the tool was reliable.

Plan of Analysis

Analysis of the data was done in accordance with the objectives. It was done by using the descriptive and inferential statistics such as calculating the percentage, mean, mean

percentage, standard deviation and ANOVA and 't'-test with selected variables. Bar diagrams were used to depict the findings. The level of significance chosen was $p<0.05$.

RESULTS

Findings related to the knowledge of Adolescent girls'. To assess the knowledge of adolescent girls regarding home remedies to relieve dysmenorrhea

Table 1. Frequency and Percentage Distribution of Adolescent Girls' Level of Knowledge Regarding Home Remedies to Relieve Dysmenorrhea

Level of knowledge	Score	frequency	Adolescent Girls'	
			%	N=60
Below Average	0-8	04	6.67	
Average	9-18	50	83.3	
Good	19-25	6	10	

Maximum Score=25

Minimum score=0

Table-1 and Fig. 1 depicts that maximum (83.3%) adolescent girls' had average knowledge followed by (10%) good and (6.67%) had least below average score. Thus it can be concluded that maximum adolescent girls' had average knowledge regarding home remedies to relieve dysmenorrhea.

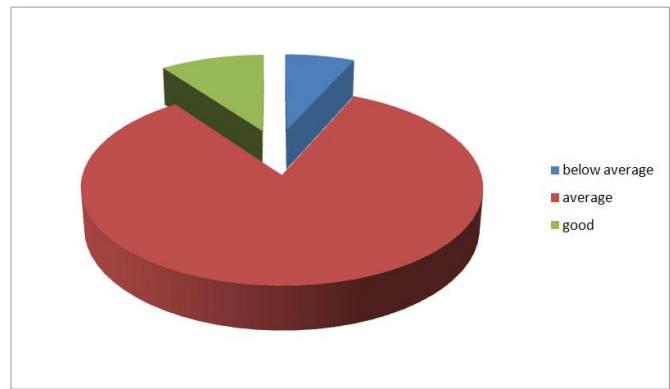


Fig. 1. Mean Knowledge Score of Adolescent Girls' regarding home remedies to relieve dysmenorrhea according to level of knowledge

DISCUSSION

Based on the findings from the analysis of the data and review of literature discussion is done according to the objectives written below: To assess the knowledge of adolescent girls' regarding home remedies to relieve dysmenorrhea. Findings of the present study revealed that maximum (83.3%) adolescent girls' had average knowledge score followed by (10%) good and (6.67%) had least knowledge regarding home remedies to relieve dysmenorrhea. Findings also revealed that age, class, area of residence, duration of menstrual cycle, duration of menstrual period and education of parents had no significant impact on knowledge of adolescent girls' regarding home remedies to relieve dysmenorrhea.

Acknowledgement

My sincere thanks go to Dr. (Mrs.) Rajinder Kaur Mahal, Principal, MD Oswal College of Nursing, Ludhiana for her

keen interest and clarify queries at each step of this study. I deeply appreciate her untiring and outstanding contribution, encouraging words and eveready help at all stages of work. Without her support this research project would not have seen the light of the day. Her analytical approach has made this research project presentable. I am thankful to Principals of Wylie sen.sec. School and lal bahaur Shastri school, Ludhiana for granting permission to conduct the research study. I wish to extend my sincere gratitude to 60 adolescent girls without whose cooperation I could not have undertaken and successfully completed this study.

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