



A pre-experimental study to assess effectiveness of muscle relaxation technique on pain during menstruation among adolescent girls facing dysmenorrhea at selected high school kawar Kishtwar, Jammu & Kashmir.

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ABSTRACT

Background: Adolescence represents the transitional period linking childhood to adulthood and involves physical, biological and psychological changes in a girl. The adolescent and young adult years are a time of both change and stability. Adolescence begins with puberty & extend from 12 to 20 years of age. Menstruation is the cyclic uterine bleeding experienced by the most of the women of reproductive age. Normal menstruation represents the cyclic shedding of the uterine secretory endometrial because of a decline in estradiol and progesterone production caused by a regressing corpus luteum.

Method: A pre-experimental research design was used present study. Total sample for the study used were 60 subjects with pain during menstruation by convenient sampling technique. The tools used to collect the data in the study were Numerical pain assessment scale. The data was collected from subject in selected High School Kawar Kishtwar, after explaining them the purpose of study.

Findings: In pre-test 50(83.3%) sample had moderate pain, 10(16.7%) had severe pain whereas 0(0%) had mild and no pain respectively. In post-test 27(45%) sample had mild pain, 23(38.3%) had moderate pain, 9(15%) had no pain whereas 1(1.7%) had severe pain after intervention respectively. Mean in post-test (2.3) was lower than mean in pre-test (5.1). Calculated p value is .000001 which showed the significant difference between posttest pain level and pretest pain level. This study shows that muscle relaxation technique is useful in pain during menstruation among adolescent girls facing dysmenorrhea

Keywords muscle relaxation technique; dysmenorrheal; adolescent girls; menstruation

INTRODUCTION

Adolescence represents the transitional period linking childhood to adulthood and involves physical, biological and psychological changes in a girl. The adolescent and young adult years are a time of both change and stability. Adolescence begins with puberty & extend from 12 to 20 years of age. (Taylor, Lillis, 2012).

Adolescence is the period during which the individual makes the transition from childhood to adulthood, usually 13 to 20 years. The term adolescent usually refers to psychological maturation of the individual, whereas puberty refers to the point at which reproduction becomes possible. (Potter& Perry, 2012).

Irregularities with the menstrual period are among the most common concerns of women and often cause them to seek help from the health care system. Common menstrual disorder includes Amenorrhea, Dysmenorrhea, Menorrhagia, Oligomenorrhea. Polymenorrhagia. (Bourne & Shaw's, 2011). Dysmenorrhea is one of the most common gynecological disorders affecting more than half of menstruating women.

Menstruation is the cyclic uterine bleeding experienced by the most of the women of reproductive age. Normal menstruation represents the cyclic shedding of the uterine secretory endometrial because of a decline in estradiol and progesterone production caused by a regressing corpus luteum. (D.C Dutta, 2007).

Menstrual cycle is a series of events, occurring regularly in females every 28 to 30 days throughout childbearing period of about 36 years. The cycle consists of a series of changes taking place concurrently in the ovaries and uterine walls, stimulated by changes in blood concentrations of hormones. The average length of the menstrual cycle is about 28 days. By convention the days of the cycle are numbered from the beginning of the menstrual phase of the menstrual cycle, which usually lasts about 4 days. This is followed by the proliferative phase about 10 days, then by the secretory phase about 14 days. (Rose & Willson, 2006).

Puberty as the sequence of events by which individual is transformed into a young adult by a series of biological changes. During this period that secondary sexual characters developed. (UNICEF, 2016).

Period of life from puberty to adulthood roughly ages between 12-20 years is characterized by marked physiological changes, development of secondary sexual characteristics effort toward the construction of identity and a progression from concrete to abstract thought. Adolescence is sometimes viewed as a transitional state during which youths begin to separate themselves from their parents but still lack a clearly defined role in society. It is generally regarded as an emotionally intense and often stressful period.

The exact period when a normal puberty begins and ends is not defined but varies between the age of 13 and 16 years. Puberty is a broader term that denotes the entire transitional stage between childhood and sexual maturity. Increasing amounts and variations in gonadotropin and estrogen secretion develop into a cyclic pattern at least a year before menarche.

Menstruation is the periodic uterine bleeding that begins approximately 14 days after ovulation. It is controlled by a feedback system of 3 cycles such as endometrial, hypothalamic – pituitary and ovarian axis. The average length of menstrual cycle is 28 days but variations are normal. The average duration of menstrual flow is 5 days (range 3 to 6 days) and the average blood loss is 50ml (range 20 to 80ml) (Lowdermilk, 2004)

Normal menstruation requires integration of the hypothalamic pituitary ovarian axis with a functional uterus a patent lower genital outflow tract and a normal genetic karyotype of 46XX.

Ashraf T. Soliman, Heba Elsedfy, (2016), conducted a study of dysmenorrhea in adolescents and young adults in Oman. Adolescents who missed school due to dysmenorrhea ranged from 7.7% to 57.8% and 21.5% miss social activities. About 50% of students (53.7% to 47.4%) reported a family history of dysmenorrhea. Incidence of dysmenorrhea was 0.97 times lower as age increased ($p < 0.006$). Concluded that the main gynecological complaint of adolescents is dysmenorrhea. It is one of the leading causes of absenteeism from school and work and is responsible for significant diminished quality of life.

Hence the investigator felt that there is need to provide and impart health education regarding muscle relaxation technique among adolescent girls facing dysmenorrhea at selected High school kawar kishtwar

Problem statement: -

A pre-experimental study to assess effectiveness of muscle relaxation technique on pain during menstruation among adolescent girls facing dysmenorrhea at selected High school kawar kishtwar

Objectives of study: -

1. To assess the pre-interventional level of pain
2. To evaluate the level of pain with muscle relaxation technique among adolescent girls.
3. To find out the association of pain with selected demographic variables.
4. To provide the booklet information regarding muscle relaxation technique

Hypothesis: - A hypothesis is an idea or explanation about the relation or association between two or more variables. It will be tested through study and experimentation.

H1: There is no significant association between demographic data and level of pain among adolescent girls facing dysmenorrhea.

H2: There is no significant difference in pain level after muscle relaxation technique in experimental and control group.

MATERIALS AND METHODS

A pre-experimental research design was used in the present study. Total sample for the study used were 60 subjects with pain during menstruation by convenient sampling technique. The tools used to collect the data in the study were Numerical pain assessment scale. The data was collected from subjects in selected High School Kawar Kishtwar, after explaining them the purpose of study. The framework of this study is based on general systems theory. General systems theory was discovered by Ludwig von Bertalanffy during the late 1930's.

Inclusion criteria

1. Adolescent girls of selected High School Kawar Kishtwar.
2. Girls those who will have attained menarche
3. Girls those who will be willing to participate in research study.
4. Those girls who will be present on the day of data collection.

Exclusion criteria for sampling

1. Girls those who will not be available at the time of data collection.
2. Girls those who will not be willing to participate in the research study.
3. Girls who will be seriously ill.
4. Girls those who will have not attained menarche.

Research tool and technique

The tool for the present study consisted of two part; **Part A: demographic profile** consists of demographic variables such as age, Education, Religion, Type of family Source of information regarding dysmenorrhea, Monthly family income, Residential area. **Part B: numerical pain assessment scale** the numerical rating scale is an 11-point scale for patient self-reporting of pain. It is based solely on the ability to perform activities of daily living and can be used for adults and children 10-year-old or older.

RESULT AND DISCUSSION: The data were analyzed on the basis of the study objectives, using both descriptive and inferential statistics. Findings are organized in the following headings

1. Distribution of sample according to age group showed that 24(40%) sample were 15- 17 years old, 19(31.7%) sample were 13-15 years of age, 11(18.3%) were greater than 13 years of age where as only 6(10%) were 17 and above years respectively.
2. Distribution of sample according to education shows that 19(31.7%) sample had 10th standard education, 18(30%) sample were less than 9th standard education, 13(21.7%) had 12th standard education whereas only 10(16.7%) had 11th standard education respectively.
3. Majority 22(36.7%) belongs to Sikh community, 18(30%) belong to both Hindu and Muslims community where as 2(3.3%) belongs to other community.
4. Majority 53(88.3%) sample had nuclear family, 4(6.7%) sample had joint family, 3(5%) had any other family type whereas 0(0%) had extended family respectively.
5. Majority 46(76.7%) receive the source of information through elders in family, 14(23.3%) sample received through friends/relatives, whereas 0(0%) received through multimedia , newspapers and magazines respectively.
6. Majority 31(51.7%) sample had 10001-15000 income; 27(45%) sample had 15001-20000• income, 2(3.3%) had 5001-10000 income whereas 0(0%) had 1000-5000 income respectively.
7. Majority 60 (100%) sample were residing in urban area, whereas 0(0%) sample were residing in rural and semi- urban area respectively.

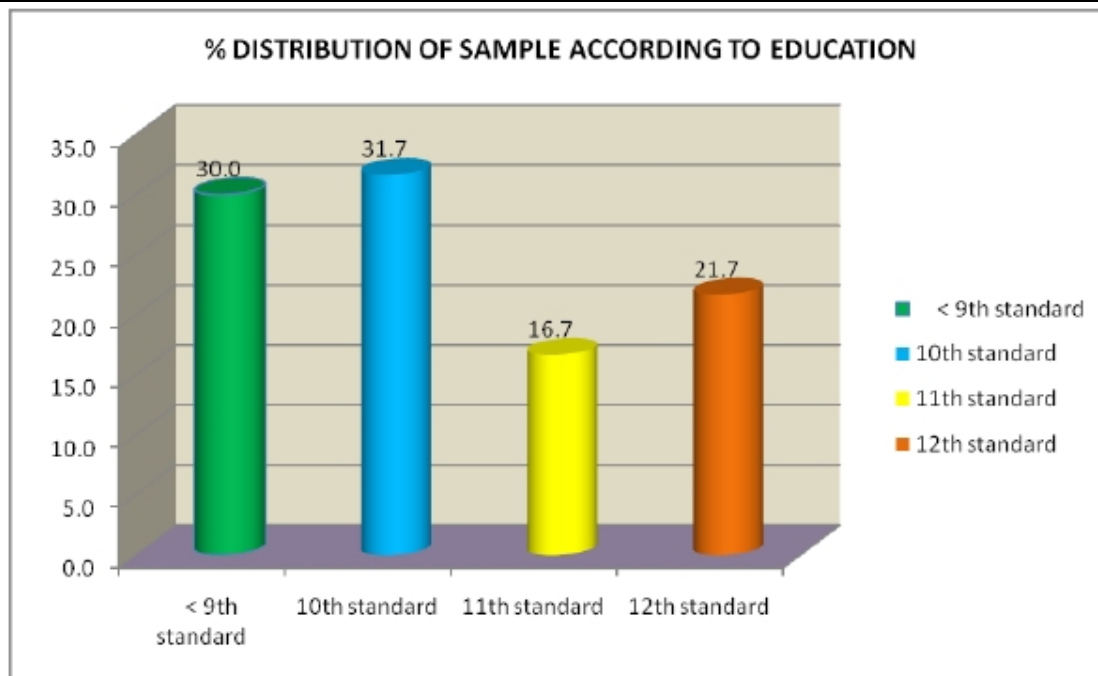


Figure 1- % distribution of sample according to education

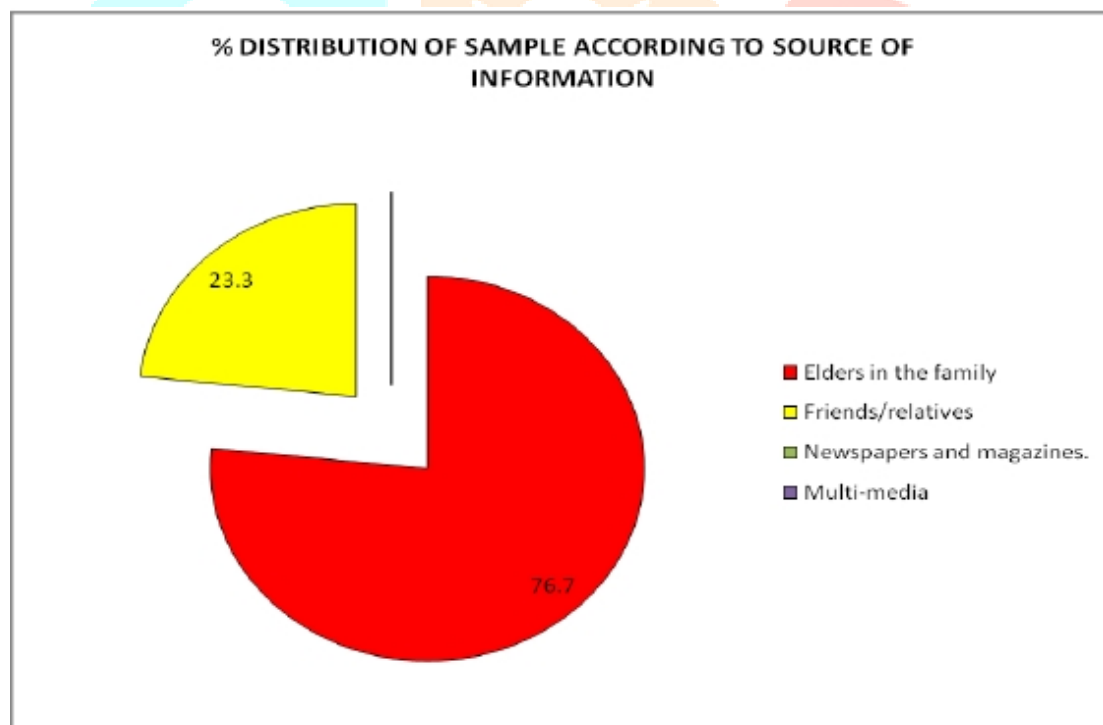
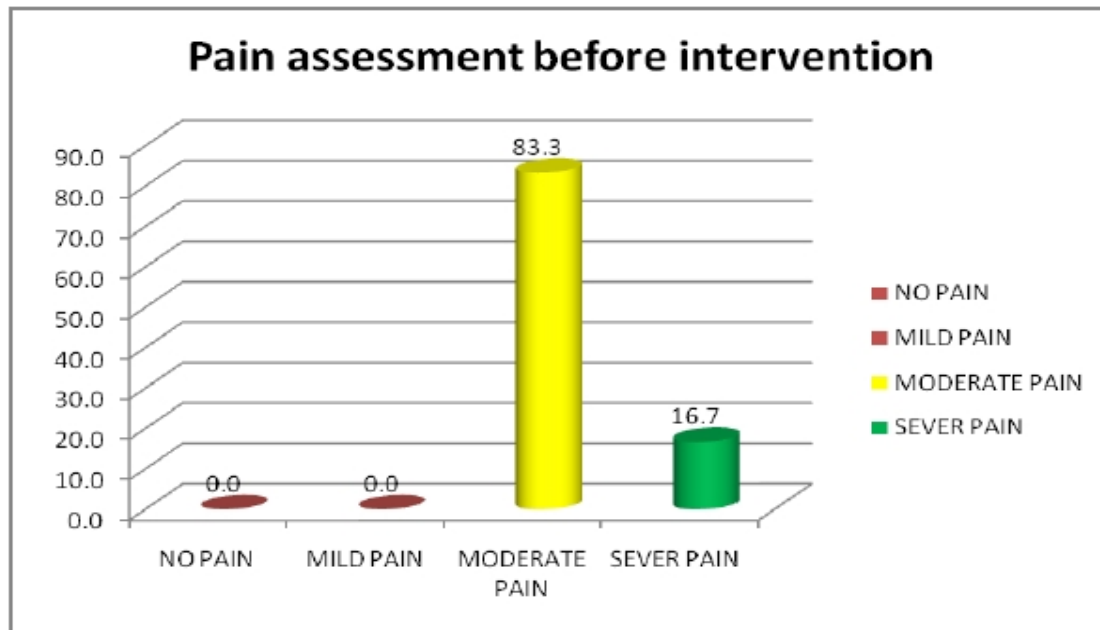
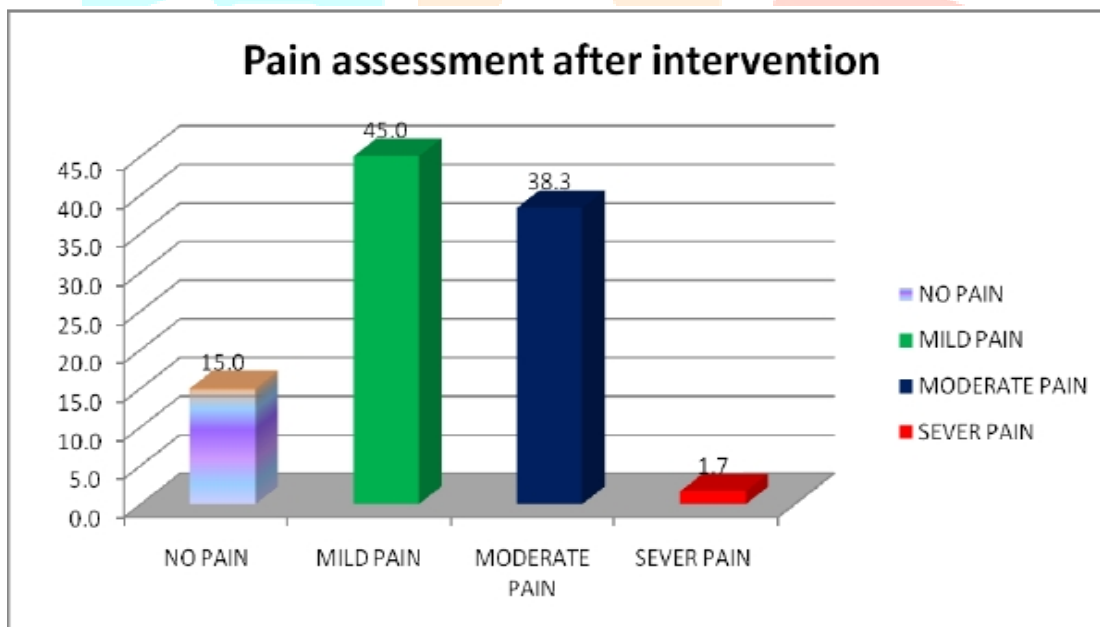


Figure 2- % distribution of sample according to source of information

Figure 3: Pain assessment before intervention

The data presented in table 8 and figure 10 showed that 50(83.3%) sample had moderate pain, 10(16.7%) had severe pain where as 0(0%) had mild and no pain respectively.

**Figure4: Pain assessment after intervention**

The data presented in table 9 and figure 11 showed that 27(45%) sample had mild pain, 23(38.3%) had moderate pain, 9(15%) had no pain whereas 1(1.7%) had severe pain after intervention respectively.

Evaluation of effectiveness of muscle relaxation technique in pain management

Data in the table 10 shows that the mean in post-test (2.3) was lower than mean in pre-test (5.1). Calculated p value is .000001 which showed the significant difference between post test pain level and pre-tests pain level. Calculated cohen's d is 2.3 which showed that muscle relaxation technique cause large effect on pain which can be observed easily.

Nursing implications

The findings of the present study have certain important utilization in the nursing profession such as nursing education, nursing administration and nursing research.

Nursing Practice: Nursing is an art and science. As a science, nursing is based upon a body of knowledge that is always changing with the new discoveries and innovations. Nursing officer can practice Jacobson muscle relaxation technique for relive the pain of dysmenorrhea she can recommended the technique over or apart with medicine and can help to the patient directly in the hospital as well as school.

Nursing Education: Education is the key component to update and improve the knowledge and attitude of an individual. Nurses can be trained for the effective used muscles relaxation technique by direct teaching, ward demonstration, in-service education. Health education program with muscle relation technique should be arranged and organize in clinical as well as school setting. Nursing leader should be recommended for program which is impart the knowledge about muscles relaxation technique. Hence there is a need to include these components into the entire educational curriculum

Nursing Administration: Nurse Administrators should identify prevailing health problems, demands and organize in-service education program for the nurse working in various departments. This will enhance their ability in identifying the learning needs of the client's people, in planning and conducting an educative program for dysmenorrhea. Health administrators can develop certain policies concerning periodic survey to identify the dysmenorrhea, maintain required facilities for implementation of Jacobson muscles relaxation technique.

Nursing Research: Research should be directed for exploring and updating staff nurse's knowledge, ability regarding implementation of Jacobson relaxation technique to provide quality nursing care. Nursing research should be conducted to prepare various education materials and training session for staff nurses who are providing care for dysmenorrhea patient.

Limitations: The limitations recognized in the study were:

1. The study was limited to small sample size (60), which imposes limitation on generalization.
2. Sample was selected only from High School Kawar Kishtwar, hence generalization can only be made for the sample studied.
3. Effectiveness of Relaxation Technique was assessed in terms of level of pain reduced during menstruation
4. The researcher use only single group, Hence the researcher had control over the events that took place between pre-test, Intervention and post-test.

RECOMMENDATION On the basis of the findings of present study the following recommendations have been made:

1. A similar study can be conducted on a large sample in order to draw more definite conclusions and generalizations.
2. A similar study can be replicated on large sample with different demographic characteristics.
3. A similar study can be recommended by using different method of teaching and techniques.
4. A similar study can be recommended to compare effectiveness of relaxation technique and other methods.
5. A comparative study can be conducted between rural and urban areas.
6. An experimental study can be undertaken with control group

Conflict of Interest: The authors declare no conflict of interest.

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