A pre – experimental study to assess the effectiveness of acupressure therapy (sp6 pressure point) in the intensity of dysmenorrhoea among nursing students at S. R. Nursing College, Gwalior M. P.

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Abstract- Dysmenorrhea is a common gynecological complaint among adolescent girls and women of reproductive age. It refers to any degree of perceived cramping pain associated with menstruation. Complementary and alternative medicine (CAM) therapies are widely used in the general population. CAM therapies may be adopted as interventions to prevent or alleviate dysmenorrhea. A pre-experimental study was conducted to assess the effectiveness of acupressure therapy (Sp6 point) on dysmenorrhoea during the first day of menstruation among nursing students at S R Nursing Colleges of Gwalior. The study used the pre-experimental approach with Two group pre-test post-test pre-experimental Research Design. Purposive sampling technique was taken up to select 60 respondents of dysmenorrhoea during their first day of menstruation in selected S R Student Nursing Hostel, Gwalior as per predetermined inclusion criteria. Data was collected with the help of Numerical Pain Intensity Scale for assessing the intensity of dysmenorrhoea and the pain intensity was recorded by the tool. Participants received acupressure therapy, in Group I at every 4 hourly for the first day of menstruation alternating between each leg at the Sanyinjiao (SP6) acupoint whereas those in the Group II received acupressure therapy at every 8 hourly for the first day of dysmenorrhoea by the researcher.

Two complete 5 – minutes cycles of pressure will be performed on each leg for a total of 20 minutes in both the Groups. For each pressure cycle on each side, SP6 pressure point will be rotated clock wise & anti-clock wise with the help of thumb/index finger of the Researcher. In each session of acupressure, the researcher took pre – test & post – test by giving a - Numeric Pain intensity Scale to the respondents experiencing dysmenorrhoea. For Group I participants it was total 6 sessions in a day & whole total there was12 readings in a day as acupressure was given every 4 hourly for the first day of menstruation and for Group II participants, it was total 3 sessions in a day & whole total there was 6 readings as acupressure was given at every 8 hourly for the first day of menstruation. Out of total number of acupressure therapies, initial two pre therapy observations were recorded for data analysis to assess the intensity of dysmenorrhoea from both the groups. The data analyzed in terms of the objectives and hypotheses using descriptive and inferential statistics. Finding of the study related to intensity of dysmenorrhoea revealed that there was a significant difference in pain intensity assessed by Numerical Pain Intensity Scale of Group I and Group II at t_{58} = .002 at the level of p<0.001. Hence it was inferred that acupressure therapy (SP6 point) in Group I was effective in reducing the intensity of dysmenorrhoea. Here, H2 was accepted. Thus it was concluded that, acupressure therapy (SP6 point) in Group I significantly reduces the intensity of dysmenorrhoea.

Index Terms- Respondents, intensity of dysmenorrhoea, acupressure therapy, SP6 point, first day of menstruation, effectiveness.

I. INTRODUCTION

Dysmenorrhoea is the most common gyaenecological disorder among adolescents with a prevalence of 60 – 93%. According to two United States Of America (USA) based studies, 42% of affected adolescents describe their menstrual pain as severe, 33% as moderate & 25% as mild (**Banikarim et al. 1999, Banikarim et al 2000, Granot et al. 2001**).

Primary dysmenorrhoea is defined as cramping pain in the lower abdomen occurring just before or during menstruation without pelvic abnormalities.

Primary dysmenorrhoea arises from the release of prostaglandins with menses, which is secreated during the luteal phase & subsequent menstrual flow**.** Excessive release of prostaglandins increases the amplitude & frequency of uterine contractions & causes vasospasm of uterine arterioles, resulting in ischemia & cyclical lower abdominal cramps.

Traditional Chinese Acupressure derived from acupuncture is a non – invasive technique.

To ease the symptoms, acupressure is applied on the specific points, to have a strong influence on blood flow & may help stop pain.

II. NEED OF THE STUDY

Dysmenorrhoea is a common distressing disorder in women that manifests during menstrual phase.

The symptoms such as head ache, vomiting, nausea, giddiness are considered as associated symptoms. The purpose of

this study was to find out the effect of acupressure therapy whether it is beneficial or not in alleviating the intensity of dysmenorrhoeal pain. The researcher find out that many of the adolescent girls having dysmenorrhoea which is very painful for them and makes them to skip their classes and they take medicines for dysmenorrhoea which has got many side-effects. So the researcher thought to conduct the study on Dysmenorrhoea that can be cured by acupressure therapy which has no side-effects and safe. Despite renewed interest in the use of acupressure for dysmenorrhoea, few studies have examined the effects of acupressure on primary dysmenorrhoea, hence the motivation for this study. Acupoint Sanyinjiao (SP6) was selected for study because it is the acupoint of choice in gyaenecology & is easy for women to locate & apply pressure to without medical assistance**.**

World Health Organization recognizes Acupressure science under Alternative Medicines or Traditional Medicines. It considers acupressure as one of the alternative medicinal treatment which is important in solving the health problems of the world. For developing countries, therapies like acupressure are a boon. It is not only affordable for the common people but also it can be useful in taking medical care to the villages where conventional medicinal treatment is hard to find. **(Suei, Feng.2005)**.

The natural and holistic approach of acupressure in dysmenorrhoea has absolutely no adverse effect as no pharmaceuticals are being introduced into the body. It's safe for all because it only helps your body to function better. The worse possible side-effect is a slight chance of minimal soreness at the site of pressure point stimulation after repeated treatments.

So far, there have been numerous studies supporting the effectiveness of acupressure therapy (SP6 point) on reducing dysmenorrhoea. During clinical experience , investigator felt the need to implement an intervention to reduce the agonizing pain which is not only cost effective but can be widely used by everyone in various different settings. Thus a study was undertaken which had a significant implication on intensity of dysmenorrhoea which could collectively reduce the pain during menstruation.

III. PROBLEM STATEMENT

Apre – experimental study to assess the effectiveness of acupressure therapy (sp6 pressure point) in the intensity of dysmenorrhoea among nursing students at S R nursing college of Gwalior

IV. OBJECTIVES:

1.) To assess the intensity of dysmenorrhoea among nursing students before & after acupressure therapy of Group I.

2.) To determine the intensity of dysmenorrhoea before & after acupressure therapy among nursing students in Group II.

3.) To determine the association between the intensity of dysmenorrhoea & selected demographic variables in both the Groups i.e. Group I and Group II.

4.) To evaluate the effectiveness of Acupressure therapy in reducing dysmenorrhoea among Group I.

5.) To evaluate the effectiveness of Acupressure therapy in reducing dysmenorrhoea among Group II.

6.) To compare the effectiveness of Acupressure in the intensity of dysmenorrhoea among Group I and Group II.

V. HYPOTHESES:

1. **H1:** There is significant association of Group I and Group II between the intensity of dysmenorrhoea & the socio – demographic data at level of p≤ 0.05.
2. **H2**: There is significant difference in the intensity of dysmenorrhoea among nursing students of Group I at the level of p≤ 0.05.
3. **H3**: There is significant difference in the intensity of dysmenorrhoea among nursing students of Group II at the level of p≤ 0.05.
4. **H4**: There is significant difference in the intensity of dysmenorrhoea among nursing students of Group II and Group II at the level of p≤ 0.05.

VI. CONCEPTUAL FRAMEWORK

The present study used the Traditional Chinese Medicine theory. **(Fig.1, Page No. 9)**

VII. RESEARCH METHODOLGY

Research Design Two group pre-test post-test pre-experimental design selected for this study. **(Fig. 2, Page No. 28)**
Population Nursing students having dysmenorrhoea during the first day of menstruation. The method of sampling employed was purposive sampling Sample size The sample size was 60 nursing students, 30 in each group Setting Choithram Student Nursing Hostel, Indore Tool The tool for collection of data for this study consisted of two sections.

❑ Section I-'a' Socio-Demographic data of Nursing students

'b' Assessment related to dysmenorrhoea

❑ Section II consisted of - Numerical Pain Intensity Scale

Validity The prepared tool along with the statement, objectives, hypotheses, operational definitions and criteria check list were given to 5 experts of obstetric speciality for establishing content validity. Necessary changes were made as per their suggestion.

Reliability The tool was tested for reliability on 6 respondents i.e. Nursing students having dysmenorrhoea during their first day of menstruation

I. Reliability of Numerical Pain Intensity Scale: Due to Subjectivity in the response the reliability of the tool could not be calculated.

Pilot Study The pilot study was conducted in S R Nursing Student Hostel, Indore from 15th November to 10th December 2016.

Data for the pilot study were collected from 6 respondents who fulfilled the inclusion criteria.

The analysis of the pilot study revealed that the objectives of the study could be fulfilled. Based on this information, investigator proceeded with the actual data collection for the main study.

VIII.   DATA COLLECTION PROCEDURE

Written permission was obtained from the administrative authorities of the S R Nursing Hostel prior to the data collection. The study was carried out not exactly as that of the pilot study, some changes has been made after pilot study because of ethical issue. Instead of experimental & control group, it is now being changed to group I & group II who will be receiving (Sp6) acupressure at every 4 hourly & every 8 hourly respectively. A total of 60 samples were selected for the study, who were Nursing students of S R College of Nursing living in a S R Nursing Hostel of Gwalior .

Prior to the data collection, informed consent was obtained from each respondent and confidentiality was assured to the subjects. This study comprised of 60 nursing students who met the inclusion and exclusion criteria, were assigned each to Group I and group II (N = 30 + 30 = 60).

1. **Pre Intervention Score:** Pain during menstruation (Dysmenorrhoea) was recorded by the tool (standardized Numerical Pain Intensity Scale).
2. **Intervention: Group I:** Acupressure therapy was given at every 4 hourly intervals on SP6 point during first day of menstruation. 5 – Minutes cycles of acupressure has been performed on each leg for a total of 20 minutes. For each pressure cycle on each side, SP6 pressure point rotated clock wise & anti-clock wise with the help of thumb/index finger. In each session of acupressure therapy the researcher took pre – test & post – test by giving a - Numeric Pain intensity Scale to the nursing students experiencing dysmenorrhoea. There was total 12 readings, as acupressure therapy is given every 4 hourly

Group II: Acupressure therapy was given at every 8 hourly intervals on SP6 point during first day of menstruation. 5 – Minutes cycles of acupressure has been performed on each leg for a total of 20 minutes. For each pressure cycle on each side, SP6 pressure point rotated clock wise & anti-clock wise with the help of thumb/index finger. In each session of acupressure therapy the researcher took pre – test & post – test by giving a - Numeric Pain intensity Scale to the nursing students experiencing dysmenorrhoea. There were total 6 readings as acupressure therapy is given at every 8 hours interval.

3. Post Intervention Score: After the therapy, pain intensity was recorded again.

IX.   FINDINGS

Section I 'a' Socio-demographic data of nursing students
Group I

The findings showed that out of 30 nursing students among Group I, majority 17(56.7%) belonged to age of 19-21 years, 8(26.7%) belonged to 22-24 years, 3(10.0%) belonged to 25-27 years, 2(6.7%) belonged to 16-18 years and 0(0%) belonged to 28-30 years.

Regarding educational status of nursing students, 21 (70.0%) were doing B.Sc. Nursing and 9 (30.0%) was doing M.Sc. Nursing.

Majority 19 (63.3%) had their menarche at the age of 13-14 years, 9 (30.0%) at the age of 11-12 years and 2 (6.7%) at the age of 15-16 years.

Majority 15 (50.0%) of nursing students have their menstrual duration of 4 days, 10 (33.3%) have for ≥5 days, 5 (16.7%) have for 3 days and 0 (0%) have for 2 days.

Regarding menstrual cycle of nursing students among Group I, majority 24 (80.0%) has their menstrual cycle within 28 days, 3 (10.0%) of nursing students has their menstrual cycle within 21 days, 3 (10.0%) has their menstrual cycle within 36 days and 0 (0%) has within 15 days.

Majority, 9 (30.0%) of nursing students have dysmenorrhoea lasting for 1 day, 8 (26.7%) lasting for ≥2 days, 8 (26.7%) have dysmenorrhoea lasting for 1-6 hours and 5 (16.7%) have dysmenorrhoea for 7-12 hours.

Regarding usage of medication, 10 (33.3%) use medicines for dysmenorrhoea and 20 (66.7%) of nursing students said they don't use medications for dysmenorrhoea.

Group II

Findings of the study reveals that out of 30 nursing students among Group II, majority 15(50.0%) belonged to age of 19-21 years, 6(20.0%) belonged to 22-24 years, 4(13.3%) belonged to 16-18 years, 3(10.0%) belonged to 25-27 years and 2(6.7%) belonged to 28-30 years.

Regarding educational status of nursing students, 20 (66.7%) were doing B.Sc. Nursing and 10 (33.3%) was doing M.Sc. Nursing.

Majority 20 (66.7%) had their menarche at the age of 13-14 years, 5 (16.7%) at the age of 11-12 years and 5 (16.7%) at the age of 15-16 years.

Majority 19 (63.3%) of nursing students have their menstrual duration of 4 days, 7 (23.3%) have for ≥5 days, 3 (10.0%) have for 3 days and 1 (3.3%) have for 2 days.

Regarding menstrual cycle of nursing students among Group I, majority 22 (73.3%) has their menstrual cycle within 28 days, 4 (13.3%) of nursing students has their menstrual cycle within 21 days, 3 (10.0%) has their menstrual cycle within 36 days and 1 (3.3%) of nursing students menstruation come within 15 days.

Majority, 13 (43.3%) of nursing students have dysmenorrhoea lasting for 1 day, 12 (40.0%) lasting for 1-6 hours, 3 (10.0%) have dysmenorrhoea lasting for ≥2 days and 2 (6.7%) have dysmenorrhoea for 7-12 hours.

Regarding usage of medication, 23 (76.7%) does not use medicines for dysmenorrhoea and 7(23.3%) of nursing students said they use medications for dysmenorrhoea. (Tab. 1, Fig.4-10, Page No.

'b' Assessment related to dysmenorrhoea
Group I

The findings showed that out of 30 nursing students among Group I, majority 19 (63.3%) experiencing dysmenorrhoea since ≥5 years, 6 (20.0%) from last 3-4 years and 5 (16.7%) from last 1-2 years.

Regarding pre-menstrual symptoms, majority 16 (53.3%) has irritability, 12 (20.0%) has other pre-menstrual symptoms (out of 12, 9 of them has abdominal pain, 1 facial pimple, 1diarrhea, and1 back pain), 1 (3.3%) has tension, 1 (3.3%) has both irritability and tension, 0 (0%) has dysphoria, 0 (0%) has combination of irritability, tension, and any other, and 0 (0%) has both irritability and any other.

Majority 13 (21.7%) of nursing students said their intensity of dysmenorrhoea is static, 11 (36.7%) said their intensity of dysmenorrhoea decreasing and 6 (20.0%) said increasing.

Majority 24 (80.0%) of nursing students said their dysmenorrhoea starts with menses, 6 (20.0%) their dysmenorrhoea starts before menses and 0 (0%) said their dysmenorrhoea starts after menses.

Regarding location of pain, majority 18 (60.0%) has lower abdominal pain, 4 (13.3%) has both lower abdominal pain and pain in pubic area, 4 (13.3%) has both lower abdominal pain and pain in lumbar area, 3 (10.0%) has all of the above and 0 (0%) has pain in lumbar area.

Majority 26 (86.7%) of nursing students said their pain is radiating sometimes, 3 (10.0%) said never, and 1 (3.3%) said always.

Majority 12 (40.0%) experience intermittent type of pain, 10 (33.3%) experience continuous type of pain, 6 (20.0%) has spasmodic pain, 1 (3.3%) has colicky type of pain, 1 (3.3%) has both continuous and spasmodic, 0 (0%) has continuous and colicky type of pain, 0 (0%) has intermittent and spasmodic type of pain.

Majority 22 (73.3%) of nursing students said their pain aggravates during day time, 4 (13.3%) said pain aggravates during night, and 4 (13.3%) said pain aggravates during other time (early morning).

Regarding severity of pain, majority 13 (43.3%) has pain in standing position, 8 (26.7%) has pain in all of the above, 7 (23.3%) has pain in sitting position, 1 (3.3%) has pain in lying down position, 1 (3.3%) has pain in both sitting standing position, 0 (0%) has pain in sitting and lying down position.

Majority 22 (73.3%) said their pain sometimes aggravates with daily activities, 7 (23.3%) said their pain always aggravates with daily activities, and 1 (3.3%) said never.

Regarding Academic session majority 24 (80.0%) said sometimes their academic session is affected, 4 (13.3%) said always and 2 (6.7%) said never.

Regarding measure taken to get rid of pain, majority 19 (63.3%) take prone position, 3 (10.0%) take other (Hot water bag), 3 (10.0%) take both prone position and hot water bag, 2 (6.7%) take knee-chest position, 2 (6.7%) do massaging, 1 (3.3%) go for both prone position and knee-chest position, 0 (0%) take knee-chest position, massaging and hot water bag, and 0 (0%) go for knee-chest position and massaging.

Group II

The findings of the study reveals that out of 30 nursing students among Group II, majority 14 (46.7%) experiencing dysmenorrhoea since ≥5 years, 8 (26.7%) from last 3-4 years and 8 (26.7%) from last 1-2 years.

Regarding pre-menstrual symptoms, majority 17 (56.7%) has irritability, 4 (13.3%) has a combination of irritability, dysphoria and other (abdominal pain), 3 (10.0%) has other pre-menstrual symptoms (out of 3, 1 has abdominal pain, 1 facial pimple, and 1diarrhea), 3 (10.0%) has both irritability and tension, 1 (3.3%) has tension, 1 (3.3%) has dysphoria, 1 (3.3%) has both irritability and any other.

Majority 14 (46.7%) of nursing students said their intensity of dysmenorrhoea is static, 9 (30.0%) said their intensity of dysmenorrhoea decreasing and 7 (23.3%) said increasing.

Majority 24 (80.0%) of nursing students said their dysmenorrhoea starts with menses, 5 (16.7%) their dysmenorrhoea starts before menses and 1 (3.3%) said their dysmenorrhoea starts after menses.

Regarding location of pain, majority 13 (43.3%) has lower abdominal pain, 5 (16.7%) has all of the above, 4 (13.3%) has both lower abdominal pain and pain in pubic area, 3 (10.0%) has pain in pubic area, 3 (10.0%) has pain in both lower abdomen and in lumbar area, and 2 (6.7%) has pain in lumbar area.

Majority 20 (66.7%) of nursing students said their pain is radiating sometimes, 5 (16.7%) said never, and 5 (16.7%) said always.

Majority 17 (56.7%) experience intermittent type of pain, 5 (16.7%) experience continuous type of pain, 3 (10.0%) has spasmodic pain, 2 (6.7%) has both continuous and spasmodic type of pain, 1 (3.3%) has colicky type of pain, 1 (3.3%) has both continuous and colicky, 1 (3.3%) has both intermittent and spasmodic type of pain.

Majority 19 (63.3%) of nursing students said their pain aggravates during day time, 6 (20.0%) said pain aggravates during other time (early morning), and 5 (16.7%) said pain aggravates during night.

Regarding severity of pain, majority 12 (40.0%) has pain in all of the above positions, 9 (30.0%) has pain in standing position, 5 (16.7%) has pain in sitting position, 2 (6.7%) has pain in lying down position, 1 (3.3%) has pain in both sitting and standing position, 1 (3.3%) has pain in both sitting and lying down position.

Majority 22 (73.3%) said their pain sometimes aggravates with daily activities, 5 (16.7%) said their pain always aggravates with daily activities, and 3 (10.0%) said never.

Regarding academic session majority 23 (76.7%) said sometimes their academic session is affected, 4 (13.3%) said never and 3(10.0%) said always.

Regarding measure taken to get rid of pain, majority 12 (40.0%) take prone position, 6 (20.0%) do massaging,5 (16.7%) go for any other (hot water bag), 2 (6.7%) take knee-chest position, 2 (6.7%) go for prone position and hot water bag, 1 (3.3%) go for knee-chest position, massaging and hot water bag, 1 (3.3%) take both knee-chest position and massaging, and 1 (3.3%) go for prone position and knee-chest position.

Section- II- Intensity of Dysmenorrhoea Measured On Numerical Pain Intensity Scale of Group I

Data presented in Table No. 3 shows the intensity of dysmenorrhoea among Group I measured on Numerical Pain Intensity Scale. It depicts that 15 (50%) of respondents

experienced Horrible pain and 15 (50%) experienced Agonizing pain before starting acupressure therapy. After giving acupressure therapy, there was reduction in the intensity of dysmenorrhoea as 19 (63.3%) of the respondents had uncomfortable pain and 11 (36.7%) of them had Annoying pain.

Section- III- Intensity of Dysmenorrhoea Measured On Numerical Pain Intensity Scale of Group II

Data presented in Table No. 4 shows the intensity of dysmenorrhoea among Group II measured on Numerical Pain Intensity Scale. It depicts that 17 (56.7%) of respondents experienced Agonizing pain and 13 (43.3%) experienced Horrible pain before starting acupressure therapy. After giving acupressure therapy, there was reduction in the intensity of dysmenorrhoea as 17 (56.7%) of the respondents had uncomfortable pain, 8 (26.7%) experienced Dreadful and 5 (16.6%) of them had Annoying pain.

Section IV-Association between the intensity of dysmenorrhoea & selected demographic variables.

The data in Table 5 depicted the computed chi-square values between the intensity of dysmenorrhoea and the variables like age, education, age at menarche, menstrual cycle, menstrual duration, duration of dysmenorrhoea, and usage of medication are not associated with intensity of dysmenorrhoea.

Section V- Assessment of intensity of dysmenorrhoea

Measured on Numerical Pain Intensity Scale: There was a significant difference in the pre-intervention and post intervention score of pain intensity among Group I (acupressure given at every 4 hourly for the first day of dysmenorrhoea) at the level of p≤0.001 and there was a significant difference in the pre-intervention and post intervention score of pain intensity among Group II (acupressure given at every 8hourly for the first day of dysmenorrhoea) at the level of p≤0.001 and there was a significant difference in pain intensity assessed by Numerical Pain Intensity Scale of Group I (acupressure given at every 4 hourly for the first day of dysmenorrhoea) and Group II (acupressure given at every 8 hourly for the first day of dysmenorrhoea) at the level of P≤0.001. Hence it was inferred that acupressure therapy (SP6 point) in Group I (acupressure at every 4 hourly) was effectieve in reducing intensity of dysmenorrhoea. Here, H2 was accepted. (Tab.)

X. DISCUSSION

The findings related to the socio-demographic data revealed that among Group II, majority 15(50.0%) belonged to age of 19-21 years. Regarding educational status, 20 (66.7%) were doing B.Sc. Nursing and 10 (33.3%) was doing M.Sc. Nursing. Regarding age at menarche majority 20 (66.7%) of the respondents had at the age of 13-14 years and 19 (63.3%) of the respondents have their menstrual duration for 4 days with majority 22 (73.3%) of them had menstrual cycle within 28 days. Regarding the duration of dysmenorrhoea, majority, 13 (43.3%) have dysmenorrhoea lasting for 1 day. It was inferred that 23 (76.7%) does not use medicines for dysmenorrhoea.

Among Group I, majority 17(56.7%) belonged to age of 19-21 years. Regarding educational status, 21 (70.0%) was doing B.Sc. Nursing. Majority 19 (63.3%) of the respondents had their menarche at the age of 13-14 years and 15 (50.0%) of the respondents have their menstrual duration for 4 days. Regarding menstrual cycle majority 24 (80.0%) of them had menstrual cycle within 28 days. Regarding the duration of dysmenorrhoea, majority, 9 (30.0%) have dysmenorrhoea lasting for 1 day. It was inferred that 10 (33.3%) does not use medicines for dysmenorrhoea.

Findings of the study related to assessment of dysmenorrhoea in Group II revealed that majority 14 (46.7%) experiencing dysmenorrhoea since ≥5 years and regarding pre-menstrual symptoms, 17 (56.7%) has irritability and 14 (46.7%) of respondents said their intensity of dysmenorrhoea is static. Majority 24 (80.0%) of respondents said their dysmenorrhoea starts with menses and 13 (43.3%) has said they have lower abdominal pain. Regarding radiation of pain during dysmenorrhoea majority 20 (66.7%) of respondents said their pain is radiating sometimes (lower back and thighs) and 17 (56.7%) experience intermittent type of pain. Majority 19 (63.3%) of respondents said their pain aggravates during day time, and regarding severity of pain, 12 (40.0%) has pain in all of the positions (standing, sitting and lying down position). Regarding aggravation of pain during dysmenorrhoea with daily activities majority 22 (73.3%) said their pain sometimes aggravates with daily activities, and 23 (76.7%) said sometimes their academic session is affected. Regarding measure taken to get rid of pain, majority 12 (40.0%) take prone position.

Among Group I, majority 19 (63.3%) experiencing dysmenorrhoea since ≥5 years and regarding pre-menstrual symptoms, majority 16 (53.3%) has irritability and 13 (21.7%) of respondents said their intensity of dysmenorrhoea is static. Majority 24 (80.0%) of respondents said their dysmenorrhoea starts with menses and 18 (60.0%) has said they have lower abdominal pain. Regarding radiation of pain during dysmenorrhoea majority 26 (86.7%) of respondents said their pain is radiating sometimes (lower back and thighs) and 12 (40.0%) experience intermittent type of pain. 22 (73.3%) of respondents said their pain aggravates during day time, and regarding severity of pain, majority13 (43.3%) has pain in standing position. Majority 22 (73.3%) said their pain sometimes aggravates with daily activities, and 24 (80.0%)) said sometimes their academic session is affected. Regarding measure taken to get rid of pain, majority 19 (63.3%) take prone position.

The above findings were supported by following study:

Amita Singh, Dukhu Kiran, Harminder Singh, Bithika Nel, Prabhakar Singh and Pavan Tiwari, (2008)[15], conducted a cross-sectional descriptive study on "prevalence and severity of dysmenorrhea, among first and second year female medical students" which was conducted on 107 female medical students, all participants were given a questionnaire to complete; questions were related to menstruation elucidating variations in menstrual

patterns, history of dysmenorrhea and its severity, pre-menstrual symptom and absenteeism from college and /or class; to detect the severity of dysmenorrhea Participants were given 20 minutes to complete the questionnaire. The mean age of subjects at menarche was 12.5 ($\pm$1.52) years, with a range of 10-15 years. The prevalence of dysmenorrhea was 73.83%; of these 6.32% severe, 30.37% moderate and 63.29% were mild grade. The average duration between two periods and the duration of menstrual flow were 28.34 ($\pm$7.54) days and 4.5 ($\pm$2.45) days respectively. Prevalence of other menstrual disorders like irregularity, prolonged menstrual bleeding, heavy menstrual bleeding and PCOD were 7.47%, 10.28%, 23.36% and 3.73% respectively. Among female medical students who reported dysmenorrhea; 31.67% and 8.68% were frequently missing college & classes respectively. Premenstrual symptom was the second most (60.50%) prevalent disorder and 67.08% reported social withdrawal. Dysmenorrhea and PMS is highly prevalent among female medical students, it is related to college/class absenteeism, limitations on social, academic, sports and daily activities.

Findings of the study related to association between the intensity of dysmenorrhoea and socio-demographic variable revealed that the computed chi-square values between the intensity of dysmenorrhoea and the variables like age, education, age at menarche, menstrual cycle, menstrual duration, duration of dysmenorrhoea, and usage of medication are not associated with intensity of dysmenorrhoea. Hence it was inferred that there was no association between the intensity of dysmenorrhoea and socio-demographic variable and here, H1 was rejected.

Major findings showed that there was a significant difference in the intensity of dysmenorrhoea assessed by Numerical Pain Intensity Scale of Group I and Group II at $t_{58} = 12.19$ at the level of p<0.001. Hence it was inferred that acupressure therapy (SP6 point) in Group I was effective in reducing the intensity of dysmenorrhoea. Here, H2 was accepted.

The above findings were supported by following study:

Mohsen, Adib et.al., (2011)[37], at Iranconducted a study to assess the effectiveness of acupressure on primary dysmenorrhoea in Iranian medical sciences students. A randomized controlled pre and post – test design was employed to verify the effects of SP6 acupressure on dysmenorrhoea. A total of 30 young college female students with primary dysmenorrhoea were randomly allocated to intervention (n = 15) and control (n=15) groups. The intervention group received SP6 acupressure during menstruation cycle and the control group received light touch on the SP6 acupoint. Using a Visual Analog Scale, the severity of dysmenorrhoea was assessed prior to and immediately, 30 min, 1, 2, and 3 h following treatment. Significant differences were observed in the scores of dysmenorrhoea between the two groups immediately after (3.50 $\pm$ 1.42 vs. 5.06 $\pm$ 1.43, p = 0.004) and also 3 h after treatment (1.66 $\pm$ 1.98 vs. 4.80 $\pm$ 1.37, p = 0.000) Acupressure on the SP6 meridian can be an effective non – invasive nursing intervention for alleviating primary dysmenorrhoea and its effects last for 3 h post – treatment.

XI. CONCLUSION

After the detailed analysis, this study leads to the following conclusion:

The crux of this study finding lay open that the acupressure therapy at every 4 hourly intervals for the first day of dysmenorrhoea is highly beneficial in reducing the intensity of dysmenorrhoea. Hence, the health care workers in the gyenecological ward and in any of the setting should strive to encourage the adolescent girls and women at reproductive age to practice acupressure therapy, which would be highly satisfying to cope with the pain experiences during menstruation. The health care workers should shift themselves from the traditional belief and opinion based practice towards clinical decision based on the best available evidence, thereby providing a positive attitude to the women at reproductive age.

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