

## Stretching Exercise Therapy and Primary Dysmenorrhea – Nursing Perspectives

K. Renuka<sup>1</sup>, Dr. S. Jeyagowri<sup>2</sup>.

<sup>1,2</sup>. (Rani Meyyamai College of Nursing/ Annamalai university, India)

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**Abstract:** *Dysmenorrhea is the commonest of all gynecological symptoms, more than half of all girls are suffer from dysmenorrheal .Painful menstruation is a cycle painful condition that adversely affects the women wellbeing for a large part of her life. There are relationships between stretching exercise and primary dysmenorrheal. Also, it helps in reducing pain, relieving stress, elevating mood and improving health. Hence, it is essential for a nurse to have better knowledge regarding effective and safe use of these therapies.*

**Keywords -** Primary dysmenorrhea , Stretching exercise.

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### I. Introduction

Dysmenorrhea means painful menstruation. In primary dysmenorrhea (intrinsic, essential, idiopathic) there is no macroscopic clinically detectable pelvic pathological process. They are primary and secondary dysmenorrhea. Primary dysmenorrhea is pain that begins with the onset of menstruation and is experienced as severe cramping and general discomfort in the lower abdomen and back. It also refers to a syndrome or symptoms of complex that may encompass nausea, vomiting, headache, nervousness, fatigue, diarrhea, syncope, backache, lower abdomen cramping, bloating, breast tenderness, mood changing and dizziness. These symptoms mostly occur before 24-48 hours or at the onset of menstruation. It is perhaps the greatest single cause of lost work and school days among young women. About 50% are affected by dymenorrhea and 10% have severe symptoms necessitating time off from work or school. The typical age range of occurrence for primary dysmenorrhea is between 17 and 22 years, whereas secondary dysmenorrhea becomes more common as women age(Andrea2009). **Stretching exercise** has been found to reduce menstrual discomfort through increase in vasodilatation, and decrease in ischemia ; release of endogenous opiates, specially beta endorphins and suppression of prostaglandins and shutting of blood flow from viscera resulting in less pelvic congestion. This reduces the pain. So stretching exercise helps in smoothing an aching back, relieving pain, improving flexibility, restoring mobility increasing circulation in the spinal tissues and joints, relaxing tense uterine muscles and maintaining good abdominal tone. Stretch-based exercises have been found to lower the excitability of the motoneuron pool (Scholz &Campbell 1980).

#### A. Therapeutic benefits of stretching exercise and Dysmenorrhea

- Safe & Effective
- Nausea and vomiting, other dysmenorrhea symptoms are decreases.
- Helps to reduce mood swings on pre menstrual phase
- Heart pumps effectively
- Tones up the elasticity and strengthen the spine& pelvic muscle
- The diaphragm is mode elastic and strong, and can stretch to accommodate the uterus easily.
- Healthy blood, oxygenation and other fluids are circulated properly to the uterus
- Exercise stabilizes the nervous system.
- Pain in joints and backache decreases.
- Exercise helps to stimulate the appetite and bowel action, hence constipation decreased.
- Raising the level of energy and also helping in maintenance of the metabolism.
- Anemia decrease & free flow during menstruation
- Obesity is controlled.
- Maintain the hormone balance

#### B. Research studies Related to positional effects of stretching exercise:

Exercise is know to cause the release of endorphines, substances produced by the brain, that raise the pain threshold (Abbaspour 2006). Six types of stretch training program (abdomen, pelvis and thigh).significantly reduced symptoms of dysmenorrhea (Karampour 2012 ). The effect of 8 weeks of stretching

exercise on primary dysmenorrheal 15-17years high school students. The results demonstrated that after 8 weeks, pain severity had decreased from  $7.65 \pm 1.94$  to  $4.88 \pm 1.92$ , pain duration was decreased from  $7.48 \pm 5.26$  to  $3.86 \pm 2.5$  hours. No significant differences were observed between these parameters in control group ( $P > 0.01$ ). (Shahna 2010).

**Table 1. SIX --Limbs of Exercise**

<b>Be Good</b>	Truth, Simplicity, Non Violence , Respect for others ,Discipline daily life.
<b>Do Good</b>	Purity, love, study, Contentment, Self-Discipline.
<b>Feel Good</b>	Physical Postures, Firm and Pleasant, Release stress and tension.
<b>Live Good</b>	I know this a wonderful moment .
<b>Inner focus</b>	Master of external influences.
<b>One Pointedness</b>	Concentration is the essence of all knowledge; More concentration, more power that is the secret.

## II. Stretching Exercise And Nursing Practice

### Five Vital Tools of Exercises

1. Proper Stretching Exercise
2. Proper Diet
3. Proper Breathing
4. Proper Relaxation /Sleep/Auto-Suggestion.
5. Proper Positive thing/attitude

1. **Proper Stretching Exercise** to help reproductive organs and pelvis to ensure easy menstruation and to ensure optimum supply of blood and nutrients to the uterus. Adolescent girls may practice the recommended exercise for 30 minutes on each day.
2. **Proper diet** should include proteins, carbohydrates, vitamins, minerals and fat, Sugar, cholesterol , high in vegetables, fruits, fiber and grains should be taken. Drink at least 8 to 10 glasses of water.
3. **Proper Breathing** helps one to be anchored in the present moment, calming and relaxing the mind completely .During the menstruation the practice of exercise eases the tension of uterine contractions, making them synchronized and harmonious.
4. **Proper Relaxation** technique-relax your toes, ankle, calf muscles, knees, thighs, waist (hip) , abdomen, chest, neck, shoulders, arm, forearm, palm, fingers, face, head.
5. **Proper Attitude** should be cool and calm person without any confusion and should have a Clear vision , Clear understanding , Confident ,Commitment and also Creativity throughout adolescent girls life.

### A. Stretching Exercise Techniques (Nursing Intervention)

#### Guidelines for stretching exercise

- Have good ventilation in the place
- Wear loose clothing ,since tight clothes will restrict the circulation to some areas of the body
- Do exercise in the early morning or the early evening before the evening meal
- Never practice on a full stomach
- Exercise has to be done slowly ,with no strain
- Breathe slowly and deeply, when inhaling, abdomen has to bulge, when exhaling, let it return.
- Exercise postures have to be Synchronize with breathing
- When releasing the exercise postures , do it gradually and in the reverse order
- Hold the postures comfortably 5 second and relax 25 seconds.

### B. Steps In Stretching Exercise

- **Warm-up phase** helps our body to adjust slowly from rest to exercise. Mild exercises are given for 7 minute with 4 repetitions.
- **Conditioning phase** benefits of exercise are gained and calories are burned. In this phase 6 exercises are given for 25 minutes with 5 repetitions.
- **Cool-down phase** helps to slowly decrease the intensity of our activity. mild exercises can be carried out for 8 minute with 2 repetitions.

### Warm-up Exercise:

#### Step: I

- Lie flat on your back.
- Bend both knees and place the feet flat on the ground.
- Now roll your bent knees to one side, roll them as far as they will easily go at the

- same time, carry both your arms and your head to the other side too.
- You are now twisting your body and stretching one set of oblique trunk muscles.
- Then bring your knees back to midline, resting your heel on the ground and your arms by your sides.
- Hold this position for 5 seconds and relax 25 seconds.
- Repeat for 4 times( both side)

**Conditioning Exercise:**

**Step: II**

- To stand behind a chair.
- Bend trunk forward from the hip joint.
- Shoulders and back were positioned on a straight line .
- The upper body was placed parallel to the floor.
- Hold this position for 5seconds and relax 25 seconds.
- Repeat for 3 times.

**Step: III**

- To stand 10-20 cm behind a chair,
- Then raise 1heel off the floor.
- Repeated the exercise with the other heel alternatively.
- Hold this position for 5 seconds and relax 25 seconds.
- Repeat for 3 times

**Step: IV**

- To spread third feet shoulder width
- Place trunk and hands in forward stretching mode,
- Completely bend her knees
- Maintain a squatting position
- Hold this position for 5 seconds and relax 25 seconds.
- Repeat for 3 times

**Step: V**

- to spread her feet wider than shoulder width.
- to bend and touch left ankle with her right hand
- putting her left hand in a stretched position above head,
- the head was in the middle head was turned and looked for her left hand .
- repeated for the opposite foot with the same method.
- Hold this position for 5 seconds and relax 25seconds.
- Repeat for 3 times

**Step: VI**

- to lie down in the supine position
- the shoulders, back, and feet were kept on the floor.
- the knees was bent with the help of her hands and reached to chin
- Hold this position for 5 seconds and relax 25 seconds.
- Repeat for 3 times

**Step: VII**

- To stand against a wall and put her hands behind
- Head and elbows pointed forward in the direction of the eyes
- bending the vertebral column,
- abdominal muscle wall was contracted for 10 seconds
- Hold this position for 5 seconds and relax 25 seconds.
- Repeat for 3 times

**Cool down Exercise:**

**Step: VIII**

- Mentally scan your body for any residual tension.
- If a particular area remains tense, repeat one or two tense-relax cycles for that group of muscles.
- Now imagine a wave of relaxation slowly spreading throughout your body,
- Starting at your head and gradually penetrating every muscle group all the way down to your toes.
- Take a deep breath
- As you exhale, imagine that tension throughout your body begins to flow away.

**III. Conclusion**

Stretching exercise are an effective, simple, non-pharmacological measure to reduce dysmenorrhea. Dysmenorrhea affects the regular classes, studies and daily activities of the adolescent girls. Stretching exercise is an effective and safe form of therapy for adolescent with primary dysmenorrhea society has tremendous technological advancement in day to life. The natural method of pain reduction is acceptable and accessible to everyone in the world. Therefore the nurse practitioners in the field can help in supporting the adolescent girls to provide comfort during menstruation in order to assure the possible outcome.

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