

Effectiveness of Physical Therapy Interventions for Women with Dysmenorrhea: A Systematic Review

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INTRODUCTION

- **Primary Dysmenorrhea:**
 - Idiopathic painful menstruation
 - 60–90% prevalence in females
 - May cause school absences and missed work
 - Impacts social life and psychological health
 - Traditional treatments: NSAIDs, contraceptives, and thermotherapy

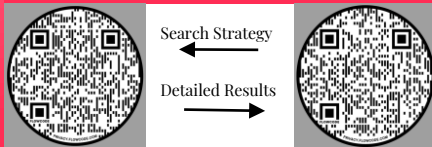
PHYSIOLOGY

- **Prostaglandins:**
 - Aid in shedding of endometrium by reducing blood flow triggering muscle contractions; extremely elevated levels in primary dysmenorrhea causing painful contractions
- **Endorphins:**
 - Endogenous peptides that relieve stress and pain by binding to opiate receptors in brain
- **Exercise:**
 - Increases blood flow, decreases prostaglandin levels and releases endorphins
 - Innate pain relief, improved quality of life.
 - Releases endorphins acting as non-specific analgesics

PURPOSE

The aim of this study is to explore the role of physical therapy in treating primary dysmenorrhea through traditional and alternative interventions.

METHODS/RESULTS



RESULTS – CONVENTIONAL

- **Aerobic Exercise:**
 - Frequency varied between 4–12 weeks
 - Duration: varied between 25–40 mins.
 - Type: dancing, walking, cycling, and treadmill training
 - Reduction in pain intensity and duration
- **Core Stabilization:**
 - Engages back extensors, abdominals and pelvic floor muscles
 - Increases circulation to surrounding musculature and tissue
 - Reduction in pain intensity and duration
- **Alternating Knee Chest Position:**
 - Strengthens pelvic floor
 - Reduction in pain intensity



- **Active Stretching:**
 - Creates flexibility in abdomen, pelvis, and groin
 - Perform stretches regularly to reduce post-cycle symptoms
 - Not superior to aerobic exercise
 - Simple and effective method for decreasing dysmenorrhea symptoms
- **Patient Education:**
 - Maintaining active lifestyle creates a positive aspect on dysmenorrhea
 - Foods rich in magnesium, potassium, and vitamin C can decrease prostaglandin production

RESULTS – NON-CONVENTIONAL

- **Spinal Manipulation:**
 - Stimulates pelvic nerves
 - More effective with exercise regimen
 - Effective in reducing intensity of pain
- **Yoga:**
 - Stretching and core stabilization
 - Poses analyzed: Corpse, Sun Salutation, Sleeping Thunderbolt, Head to Knee, and Seated forward bend
 - Research needed for long-term benefits
- **Aquatic Therapy:**
 - Promotes muscle relaxation and stretching
 - Reduces intensity and duration of pain
- **Kinesio Taping:**
 - More effective than isometric exercise
 - Can provide immediate pain relief through cutaneous stimulation



Anterior
8cm x 5cm = horizontal
10cm x 5cm = vertical



Posterior
No specified dimensions
Pictured: 2, 10cm x 5cm

RESULTS- NON-CONVENTIONAL

- **Acupressure:**
 - Auricular acupressure
 - Internal genitals, endocrine, shenmen, sympathesis, liver, kidney
 - No obvious effects on dysmenorrhea pain
 - Acupoints
 - SP-6 and RANGU points
 - Effective in reducing pain



APPLICATION TO CLINICAL PRACTICE

- Include questions on the intake form to screen for symptoms
- Easy addition to plan of care
- Advocate to treat the “whole” person
- Promote open communication
- Can incorporate into any clinical setting

LIMITATIONS

- Limited availability of high quality RCTs
- Limited long-term follow-up
- Lack of evidence analyzing several menstrual cycles
- Small sample sizes

CONCLUSIONS

- Most effective: aerobic exercise, active stretching, and core stabilization
- Traditional methods recommended in conjunction with alternatives
- More research needed
- Physicians should recommend physical therapy to patients