

## Four Ways to Ease Dysmenorrhea: A Comparative Study

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### Abstract

Dysmenorrhea is a pain that occurs before or during menstruation. The pain is generally felt in the lower abdomen and can spread to the hips and thighs with intensity ranging from mild to uncontrolled pain. Often women who experience dysmenorrhea cannot even perform daily activities. This study aims to compare four natural ways to ease dysmenorrhea. Sixty students at a private university in Indonesia who are constantly experiencing dysmenorrhea every month at the time of their menstruation were voluntarily involved in this study. They were divided into four groups: 15 students did dysmenorrhea exercise, 15 students did jogging, 15 students underwent massage therapy, and 15 students underwent music therapy. The 60 research samples did not take pain killers or use other methods to relieve pain. The instrument used to measure pain before and after intervention is a numerical rating scale with a scale of 0 for painless to 10 for uncontrolled pain. The results showed that the average value of pain before dysmenorrhea exercise is 4.47 and after exercise is 1.47 ( $z = -3.69, p = 0.00 < \alpha = 0.005$ ). The average value of pain before the jogging is 4.47 and after jogging is 1.93 ( $z = -3.51, p = 0.00 < \alpha = 0.005$ ). For the massage group, the average of pain before treatment is 4.67 and after therapy to 1.2 ( $z = -3.22, p = 0.00 < \alpha = 0.005$ ). Average pain scale for music therapy before intervention is 4.13 and after therapy to 2.67 ( $z = -3.04, p = 0.00 < \alpha = 0.005$ ). There is a statistically significant difference between the study groups by using one-way ANOVA ( $F = 2.289, p = 0.43$ ). A Tukey post Hoc test revealed that only the massage group (3.47) is statistically more effective in relieving dysmenorrhea than jogging (2.53). Multiple comparisons between the other groups don't show any significant difference to relieve dysmenorrhea.

**Keywords:** *Dysmenorrhea, exercise, jogging, massage, music therapy*