Importance and effect of exercise in reducing primary dysmenorrhea

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Menstruation is an important part of female reproductive system. It contributes a lot in the physical, emotional, and mental well-being of the female. When the ovum or egg does not receive a sperm for fertilization, the egg is shed along with the lining of the uterus. This cycle constitutes of an approximately 28-day cycle, sometimes with 24-day to 35-day variations. The events of the cycle are broadly classified into three stages: Ovulatory, Luteal and Follicular, and are administered by the hormones Oestrogen and Progesterone.

Painful cramps during menstruation, also known as dysmenorrhea is a common complaint among women, either before or during the first 3 days of the menstrual cycle. Pain is usually concentrated in the lower back and the abdomen, whereas vomiting, nausea or dizziness is rarely present (Osayande and Mehulic 2014). There have been numerous studies throughout the years regarding the prevalence of dysmenorrhea among women. A systematic review carried out by WHO (Latthe et al. 2006) studied that a little more than 90% females between the age of 10 to 20 showed a prevalence of Dysmenorrhea, with around 29% of women complaining of severe pain. It was also observed that the pain was more common and severe in adolescent women rather than older women. The prevalence of dysmenorrhea in the age group of 17-24 ranged between 60-90%, meanwhile only less than 15-70% older women reported the prevalence of pain (Hong et al. 2014).

A lot of recent studies show a reduction in severity of pain in females who practiced regular physical activities over those who did not (Abbaspour et al. 2006). Experimental studies have studied effects of variety of physical exercises including Aerobics, Yoga, Zumba, Pilates, and stretching exercises on reducing dysmenorrhea. With an increase in the sedentary lifestyle, National Health Service (NHS) (2009) recommends at least 150 minutes of moderate physical activity for individuals in the 19-64 age range, also mentioning that minimum of 30 mins of walking or jogging per day helps in reducing menstrual pain. Regular physical activity is seen to reduce the serum aldosterone and renin levels in women, thereby increasing the secretion of oestrogen and progesterone which in turn helps in reducing the pain caused during menstruation (Ortiz et al. 2015). This study was a randomized control trial where the experimental group was given Physiotherapy exercises (which included jogging, stretching and Kegel's exercise) for 3 complete menstrual cycles and control group was assigned no specific physical activity. The study concluded that at the end of 2nd and 3rd cycle, there was a significant decrease in the perceived pain by the participants in the experimental group compared to the control group ($p<0.05$).

A study using the method of prospective reporting done by Mindy (2008) explored the effects of exercise on 21 females with no physical activity versus 20 females who performed regular physical activity. After monitoring for two complete cycles, it was observed that that the participants in the latter group complained of less pain during the menstrual cycle than the sedentary group.

This can conclude that exercise is beneficial to reduce primary dysmenorrhea and it will be beneficial to study which form of exercise has a long-term reduction in the pain. This will assist the physiotherapists to design their treatment protocol accordingly.

Speaker Biography

Sanika Lagoo is a Physiotherapist. She graduated her bachelors from Pune, Maharashtra, India, and is pursuing Masters from Cardiff University, UK. Currently she is working as a full time therapist in Kent, UK as well. She had realized that as a physiotherapist, the most important part of treatment understands the individual's pain and complaints on a complete level. Hence, she focuses on the alterations in the person's ability and inability during performing activities caused due to their pain. The evaluation then promotes me to teach specific exercises to reduce their complaints. As a certified Kathak dancer and a Dance/Movement Therapist, She understands that movement and rhythm is the most important part in carrying out any activity. Hence it is essential to learn how to train the body movements in a way that increases the individual's efficiency.

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