

# Yoga as a school health service for adolescents suffering from primary dysmenorrhea

## Abstract

Primary dysmenorrhea is a common pain issue among girls in adolescence and it is characterized by the fact that is not associated with other pathological conditions. Among professionals that work in adolescent sexual and reproductive healthcare, dysmenorrhea is considered to be a periodic pain issue that can be temporarily treated by medicine, but the recurrence of the pain and the monthly discomfort have a larger impact on the lives of the adolescent girls. The voices of adolescents that reflect the need for alternative solutions as complementary therapy become more intense. Yoga as a complementary therapy can educate and contribute to the management of menstrual pain and provide a better quality of life. This article provides information about the recent research on interventions of yogic science in schools, to enhance adolescent reproductive health and help them overcome menstrual pain. It highlights the importance of using a wider spectrum of yogic tools and discusses their application to the school context, resulting in a positive effect on treating primary dysmenorrhea.

**Keywords:** menstruations, blood heaviness, dysmenorrhea, Yoga nidra, surya namaskar

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**Abbreviations:** KAP, knowledge, attitude and practice; QOL, quality of life

## Opinion

Adolescent health and especially recurrent pain issues are often discussed in current research. Gender equality and socio-cultural trends shed light to the lives of young girls exposing the health issue of primary dysmenorrhea. While discussions are being made on a clinical level, the governmental agencies seem to lack plans and interventions to support these young girls, leaving them exposed to social inequities, pain suffering and potential school failures or attendance problems.<sup>1</sup> On a global level, studies have shown that the rates of dysmenorrhea in adolescence varies between countries, but it is not directly reflected from the economic development of the country.<sup>2</sup> Rates differ between 41-91,5%, a prevalence that derives from global studies and from different periods of time. Of those young girls, almost 29% are affected by severe pain.<sup>3</sup> Pain influences the quality of life and all everyday activities of an adolescent, with severe consequences on school attendance in the form of loss of concentration, missing school days and decreased academic performance.<sup>4</sup> A systematic review explored and evaluated different types of menstrual education interventions from 24 studies and confirmed the improvement in menstrual knowledge, attitude and practice (KAP) for young adolescent girls. Almost all of the interventions were applied in the school context and among others included pain relief provision, confidence to ask for pain relief measures and self-care practices such as yoga to relieve dysmenorrhea.<sup>5</sup>

### Primary dysmenorrhea in adolescents and the current treatment options

The first menstruation occurs between the ages of 11-16 but sometimes it can come earlier or later than this. Menarche, such as it is called, can be painful and experienced as cramps in the stomach, lower back, or legs, bloating and tiredness, as well as sore breasts, acne and mood swings. As the adolescent periodically menstruates, the duration between the menstruations, blood heaviness and pain or other symptoms can vary. Primary Dysmenorrhea is often regarded

as normal, but in reality, it derives from an increased production of prostaglandins F2a and E2 at the endometrium inside the uterus that results to hyperactivity to the myometrium, pelvic pain and other physical symptoms such as headache, tender breast and other body pains.<sup>4</sup> Most of the treatments provided, include medications such as analgesics, diuretics, histamine antagonists and non-steroidal anti-inflammatory drugs (NSAID). Hormone therapy with anti-contraceptives is also common among the adolescents, especially in countries with strong sexual and reproductive health policies, where menstrual health is prioritized and education possibilities as well as access to specialized healthcare services and to anti-contraceptives is a priority for female adolescent health.<sup>6</sup>

### The benefits of yoga as a complementary therapy for dysmenorrhea in adolescents

Although many adolescents find pain relief with medical treatments, the need for natural therapies and self-care treatments is communicated in adolescent forums. Studies show that 66,3% of adolescents use alternative therapies for alleviation of physical pain.<sup>7</sup> Menstrual pain and primary dysmenorrhea can be effectively alleviated by yoga. Research shows that yoga reduces the level of prostaglandin production and myometrial ischemia by impacting the hypothalamic-pituitary-adrenal axis and the sympathetic nervous system.<sup>8</sup> The combination of the appropriate poses (asanas), breathing (pranayama), meditation (dhyana) and relaxation techniques can create a therapeutic module that decreases the feelings of pain, tension and fear. Yoga is a non-invasive, cost effective and easily applicable method, especially for adolescent girls that are seeking easy and effective practices to alleviate their discomfort and pain.<sup>9</sup> Yoga nidra, surya namaskar, various postures and visualization, breath awareness as well as different yoga sessions in time and intensity were discussed in a meta-analysis of four Randomized Control Trial studies that confirmed the findings of previous research.<sup>10</sup> The overall Quality of Life (QOL) is also found to be improved when practitioners are using yoga as an intervention for management of primary dysmenorrhea. Research shows that physical pain, sleep disorders and emotional negativity decrease, while concentration as well as social relationships can be strengthened.<sup>11</sup>

## The importance of considering yoga as a complementary therapy for dysmenorrhea in adolescents

The research field of yoga and adolescent health is growing and as discussed above, the benefits of yoga practices on primary dysmenorrhea are studied and accepted by the adolescents that suffer from it. The importance of considering yoga as a complementary therapy for dysmenorrhea in adolescence is awaiting its recognition from the governments and the stakeholders, as a prioritized area described in adolescent health policies and promoted from the school health care services. A systematic review of 39 randomized controlled trials testing the effect of yoga in youth revealed that most of them were conducted in school settings.<sup>12</sup> Schools are considered a friendly environment for school health education programs and other interventions. A health promoting school continuously develops a healthy setting for learning and living. It also integrates practices that create positive experiences and protect overall health.<sup>13</sup> Yoga education as a structure that enhances the sexual and reproductive health of adolescent girls that are suffering from dysmenorrhea and other menstrual discomforts can be a supportive tool, which is ready to be implemented. The deep knowledge of these methods can be a powerful treatment and a health education that accompanies the adolescent girl to the future life stages as an adult, a woman, a mother. Wise, early investments provide future positive results.

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### Conflicts of interest

None

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