

# EFFECTIVENESS OF COGNITIVE BEHAVIORAL THERAPY AND YOGA IN MANAGING ANXIETY AND STRESS IN SCHOOL GOING CHILD WITH PRIMARY DYSMENORRHEA

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## Dear Editor,

We would like to share our experience with the Medicina Academica Integrativa audience regarding the common symptoms of anxiety and stress experienced by adolescent girls during menstruation due to dysmenorrhea. Dysmenorrhea is categorized into primary and secondary types. Primary dysmenorrhea involves severe cramping in the lower abdomen before or during menstruation, lasting 8-72 hours and peaking on the first or second day. Additionally, the pain is often accompanied by systemic symptoms like nausea, vomiting, diarrhoea, fatigue, and insomnia. In contrast, a number of distinct pathological conditions, such as endometriosis, adenomyosis, fibroids (myomas), and pelvic inflammatory disease, can cause secondary dysmenorrhea pain. (Iacovides, Avidon & Baker 2015)

The severity of dysmenorrhea varies, affecting women differently. While some experience mild to moderate discomfort, others endure extreme pain, leading to negative effects on emotions, social life, and physical well-being. Dysmenorrhea is also linked to anxiety and stress, commonly found in school girls. Anxiety and depression levels, which have been linked to a variety of pains, are believed to be linked to dysmenorrhea as well. Menstrual cycle issues and dysmenorrhea are more common in those with emotional and behavioural issues (Sahin et al. 2018). Many girls experience embarrassment and social withdrawal due to fear of pain and discomfort, leading to heightened stress, avoidance behaviors, and a negative self-image. This often results in school absenteeism among young women, impacting various aspects of life. Reports indicate high rates of absenteeism due to dysmenorrhea. The perceived severity of the pain and its related morbidities influence the frequency of absenteeism from school. Research has also indicated that even individuals who are able to attend school could struggle to focus or engage in their coursework. The academic achievement of the student will be impacted by school absences, particularly if they become a regular occurrence (Ezebialu, Ezenyeaku & Umeobika 2021)

Cognitive Behavioral Therapy (CBT) has been shown to improve mood swings, academic performance, and participation in daily physical activities, while also enhancing attention, concentration, and tolerance to pain (Akbar et al. 2024; Hassan et al. 2021). Yoga, as an alternative therapy, reduces dysmenorrhea pain, lowers stress, and enhances physical and mental well-being

through practices like asanas, pranayama, and meditation (Rakhshae 2011). Yoga combines breathing exercises, meditation, and physical activities to strengthen muscles and relieve tension.

Regular yoga practice encourages relaxation, reduces stress reactions, and helps individuals feel less anxious. Consistent practice also teaches the mind to feel more in control, manage emotions, and remain present. Notably, both yoga and CBT reduce dysfunctional thought processes, but yoga may lessen the likelihood of these thoughts occurring in the first place. Whereas, CBT teaches individuals to recognize and replace dysfunctional thoughts. The combination of yoga and CBT may be beneficial, as yoga can reduce the propensity for negative thoughts, while CBT can substitute maladaptive thoughts. This integrated approach may effectively lessen anxiety, highlighting the potential benefits of combining yoga and CBT.

This case study was approved by the Institutional Scientific Review Board (ISRB number: 01/009/2023/ISRB/SR/SCPT). Informed assent was obtained, and the subject's anonymity was preserved. A 16-year-old girl diagnosed with dysmenorrhea experienced severe cramping, pain, and discomfort, leading to heightened anxiety and stress. This resulted in minimum 2 and maximum 4 days of school absenteeism per cycle, affecting her academic performance and social life. Initial assessments were conducted using the Generalized Anxiety Disorder-7 (GAD-7) and Perceived Stress Scale (PSS) revealed moderate anxiety (14/21) and high stress (28/40). A 12-week integrated intervention combining Cognitive Behavioral Therapy (CBT) and Yoga was administered, consisting of three 40-minute sessions per week. The intervention included CBT principles, yoga asanas, and relaxation techniques.

Post-intervention assessments showed significant improvement, with decreased GAD-7 (6/21) and PSS (11/40) scores, indicating mild anxiety and low stress. School absenteeism reduced to 2 days in 3 months, and the participant reported increased confidence and reduced anxiety, leading to improved participation in school activities. This case study demonstrates the effectiveness of combining CBT and yoga in managing psychological distress associated with primary dysmenorrhea in school children. The findings of this study contribute to the application of CBT and yoga in future research.

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