Title

Prevalence of Dysmenorrhea and its association with Hemoglobin Levels Among Saudi Females

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Abstract

Dysmenorrhea is a gynecological condition characterized by mensural pain, it is prevalent among Saudi females, impacting their overall well-being. This study aims to explore the prevalence of dysmenorrhea and its association with concentration of blood hemoglobin in this population, providing valuable insights into potential strategies for improving menstrual health. To conduct the study, a cross-sectional pilot was performed at the University of Hafr Albatin in Saudi Arabia involving 136 university students. Participants underwent capillary blood collection to measure hemoglobin levels and completed a survey detailing demographic information and dysmenorrhea characteristics. Statistical analyses were then used to identify the association between hemoglobin levels and dysmenorrhea severity. Demographic analysis revealed that over half of the participants were aged between 21 and 23, and almost 98% experience varying degree of dysmenorrhea. Nearly 50% of participants were anemic. The mean hemoglobin level was 12.07 g/dl, with anemic participants showing a lower mean of 10.7 g/dl. Further analysis indicated a significant association ($p=0.027$) between hemoglobin levels and the severity of dysmenorrhea. It was observed that females with low hemoglobin level were more likely to experience severe dysmenorrhea compared to non-anemic females who reported mild to moderates menstrual pain. Among anemic participants, dysmenorrhea severity varied, with diverse menstrual patterns and associated symptoms. Monthly pain significantly interfered with daily activities, and concentration during lectures was notably affected. The majority reported a medium level of pain, lasting 1-2 days, and 53% reported 1–3 absences from classes every month. In conclusion, this study highlights a high prevalence of dysmenorrhea among Saudi females affecting as many as 98% of the study participants. The findings also demonstrates a significant association between blood hemoglobin concentration and the severity of dysmenorrhea in this population group.

These findings stress the importance of targeted interventions and support systems for improving females health and quality of life . Future research should focus on exploring strategies and longitudinal approaches to gain an understanding of how hemoglobin levels relate to dysmenorrhea.