

Abstract 35:

The association between menstrual pattern, premenstrual syndrome and sleep quality among GCE A/L students in schools in the Jaffna Municipal Council Area

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Background and objective: The menstrual cycle involves monthly physiological changes preparing the body for pregnancy. Variations in menstrual patterns are common, especially among young females who are new to menstruation, and can be influenced by various factors. Understanding the association between menstrual patterns and sleep quality can help manage symptoms and improve overall well-being. This study aimed to describe menstrual pattern, premenstrual syndrome (PMS) and sleep quality among GCE A/L students studying in schools in the Jaffna Municipal Council area.

Methods: A descriptive cross-sectional study was conducted involving 345 students sitting for the GCE A/L Examination in 2025 using proportionate stratified sampling method. Ethical clearance was obtained prior to the study. Data were collected between December 2023 and March 2024 using a self-administered questionnaire. Data were analyzed with SPSS version 27, employing chi-square and t-tests, with statistical significance at a p-value of less than 0.05.

Results: In the sample, 61.5% (n=212) experienced significant dysmenorrhea, 8.1% (n=30) experienced PMS and 14.9% had irregular menstruation (n=51). A significant association was found between dysmenorrhea and sleep quality ($X^2=5.24$, $p=0.022$); 92.4% of participants with dysmenorrhea reported good sleep compared to 97.8% without dysmenorrhea. PMS also showed a significant association with sleep quality ($X^2=4.77$, $p=0.029$); 88.0% of those with PMS reported good sleep compared to 96.8% without PMS. No significant association was found between menstrual cycle regularity and sleep quality ($X^2=0.966$, $p=0.326$), although 96.7% of those with a regular menstrual cycle reported good sleep quality compared to the 93.7% of those with an irregular cycle.

Conclusions and recommendations: The study findings establish that there is a notable association between sleep quality and both PMS and dysmenorrhea. There is no evidence to suggest that menstrual regularity is associated with sleep quality. Further research is needed on menstrual patterns and sleep quality to design interventions to improve sleep outcomes in affected individuals.

Keywords: Menstrual pattern, Premenstrual syndrome, Sleep quality, Secondary school students, Jaffna