Prevalence of dysmenorrhea and associated risk factors among university students in Zimbabwe

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Abstract

Background: Dysmenorrhea is an often incapacitating condition that is characterized by painful menstruation and general body malaise. In Zimbabwe, this condition is understudied, and its associated risk factors are poorly understood.

Objectives: To investigate the prevalence and associated risk factors of dysmenorrhea among female students at Midlands State University in Zimbabwe.

Design: This is a cross-sectional study that employed simple random sampling technique to obtain data from 382 students using pretested and self-administered questionnaires.

Methods: Data were analyzed using STATA version 16. Associations between dysmenorrhea, menstrual, socio-demographic, and lifestyle characteristics were measured using chi-square test and logistic regression model.

Results: The prevalence of dysmenorrhea was 75.9%, with 28.6% of sufferers describing their pain as severe. Dysmenorrhea significantly affected the school/daily activities of respondents ($\chi2 = 18.22$, $p < 0.001$). Family history ($\chi2 = 4.28$, $p = 0.04$), age of menarche ($\chi2 = 14.8$, $p < 0.001$), regularity of menstrual cycle ($\chi2 = 18.1$, $p < 0.001$), and parity ($\chi2 = 8.8$, $p = 0.03$) were associated with the prevalence of dysmenorrhea. The risk of developing dysmenorrhea almost doubled with positive family history (prevalence odds ratio = 1.68 (95% confidence interval: 1.03 to 2.75, $p = 0.040$)); increased with decrease in age of menarche (prevalence odds ratio = 0.19 (95% confidence interval: 0.10 to 0.45, $p < 0.001$)) and decreased with increase in parity (prevalence odds ratio = 0.15 (95% confidence interval: 0.03 to 0.82, $p = 0.029$)). However, the risk was low among those with irregular menstrual cycles (prevalence odds ratio = 0.14 (95% confidence interval: 0.10 to 0.33, $p < 0.001$)). Physical exercise, smoking, alcohol, and coffee consumption were not associated with the prevalence of dysmenorrhea ($p > 0.05$).

Conclusion: Dysmenorrhea is common among female students at Midlands State University, and it significantly affects their academic activities. Family history, regular menstrual cycle, nulliparity, and lower age of menarche were risk factors. More awareness is recommended including studies on impact and management strategies.