

Effect of pedometer-based walking on depression, anxiety and insomnia among medical students

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Introduction: Insomnia, anxiety, and depression are some of the psychological symptoms reported by college going students, including those pursuing a medical degree. Physical activity helps students remain healthy and improves physical function.

Aim of the study: To evaluate the effect of a pedometer-based walking on anxiety, insomnia, and depression among medical students.

Material and Methods: In this study, 120 second year MBBS students were randomly assigned to two groups (n = 60 in each group). Anxiety, insomnia, and depression levels were assessed using the GHQ-28 and Beck questionnaires in the 4th, 8th, and 12th week of intervention. Participants of intervention group downloaded pedometer app in smart phones, and were asked to increase their steps by 500 per week. Data were analyzed using the independent t-test, chi-square, and repeated measures tests.

Results and Conclusion: Anxiety and insomnia level decreased in the 8th (4.7 ± 1.8 vs. 5.8 ± 3.1 , $P = 0.01$) and 12th week (3.9 ± 1.4 vs. 6.2 ± 3.7 , $P < 0.001$) in the intervention group, compared with the control group. The depression level decreased in the intervention group, compared with the control group, after 12 weeks (12.7 ± 4.8 vs. 19.6 ± 5.7 , $P < 0.001$). The intervention group increased their step count from 78,357 steps per month in the first month, to 109,368 in the third month. This study showed the pedometer-based walking had a positive effect on depression, insomnia, and anxiety among medical students. A walking training program can be considered for students to manage anxiety insomnia and depression.