# PREVALENCE OF FLATFOOT AND ITS CORRELATION WITH AGE, GENDER AND BMI AMONG UNDERGRADUATES AT THE FACULTY OF ALLIED HEALTH SCIENCES, GENERAL SIR JOHN KOTELAWALA DEFENCE UNIVERSITY, SRI LANKA

KA Jayabandara[1], SADK Rodrigo[1], HKS Nadeeshan[1], C Wanniarachchi[1#], RMAPI Rajathewa[1], PTR Makuloluwa[2] and ADP Perera[1]

[1]Faculty of Allied Health Sciences,
General Sir John Kotelawala Defence University, Sri Lanka
[2]Faculty of Medicine, General Sir John Kotelawala Defence University, Sri Lanka
[#]*chathusupathmi@gmail.com*

Flatfoot, also known as pes planus is a postural deformity, congenital or pathological due to collapse of foot arches. It leads to entire sole of foot to contact ground completely or near-completely. The objectives of this study were to determine the prevalence of flat foot among Allied Health undergraduates and its correlation with age, gender and BMI (Body Mass Index). A cross-sectional study was conducted among 533 male (n=131) and female (n=402) participants (mean age 23.009) enrolled through convenient sampling. Interviewer-administered questionnaire was used to collect demographic data. Height and weight measurements were obtained to calculate BMI. Footprints were obtained using Modified Harris Mat. Arch index ratio was used to determine the foot type. The data were analyzed using SPSS version 23. $P<0.05$ was considered statistically significant. The overall prevalence of flat foot in the age group studied (19-26 years) was 34.7% (n=185), the majority (73.5%) with bilateral flat foot. Though a notably higher percent of females (74.1%; n=137) compared to males (25.9%; n=48) had flat foot, the study failed to find a statistically proven correlation with gender (p=0.069) and with age (p=0.540). However, flatfoot showed a statistically significant association with BMI (p=0.000) with relatively higher prevalence (n=164, 52.4%) among overweight and obese categories of BMI (23–24.9). The prevalence of flatfoot among Allied Health undergraduates was notably high requiring screening for early detection and appropriate referral for corrective measures.

**Keywords:** Flatfoot, Gender, Body Mass Index