

## ***ABSTRACT***

***Background:*** Flat foot is a deformity of the pedis that refers to the loss of the medial longitudinal arch of the pedis, resulting in the pedis area being closer to the ground or in contact with the ground. This can cause pain, irritation and discomfort to the pedis and joints of the lower limbs as well as impaired balance..

***Objective:*** To determine the relationship of flat foot to balance disorders in Jambi University FKIK Medicine study program students.

***Methods:*** Observational analytic research with a cross sectional study research design with a sample of 416 students of the FKIK UNJA Medical Study Program who met the inclusion and exclusion criteria. Research time March - April 2023. Primary data in the form of balance disorders and images of the soles of the feet. Bivariate analysis using the Chi-square test.

***Results:*** Based on the results of the balance test, and the wet foot print test obtained students who experienced flat feet amounted to 43 people (89.7%), who experienced static balance disorders amounted to 254 people (61.1%), who experienced dynamic balance disorders amounted to 293 people (70.4%), and who experienced balance disorders both amounted to 280 people (67.3%). Based on the results of Chi-square analysis, there is a relationship between flat foot and dynamic balance disorders (*p* value 0.02), the relationship between flat foot and static balance disorders (*p* value 0.011), and the relationship between flat foot and both balance disorders (*p* value 0.01).

***Conclusion:*** There is a relationship between balance disorders and flat foot in FKIK UNJA Medical Study Program students.

***Keywords:*** Flat foot, static balance disorder, dynamic balance disorder

## ABSTRAK

**Latar Belakang :** *Flat foot* adalah kelainan bentuk pedis yang mengacu pada hilangnya archus longitudinal medial pedis, mengakibatkan daerah pedis tersebut semakin dekat ke tanah atau berkontak dengan tanah. Hal ini dapat menyebabkan rasa sakit, iritasi dan ketidak nyamanan pada pedis dan sendi sendi tungkai bawah serta gangguan keseimbangan.

**Tujuan :** Untuk mengetahui hubungan *flat foot* terhadap gangguan keseimbangan pada mahasiswa program studi Kedokteran FKIK Universitas Jambi.

**Metode :** Penelitian analitik observasional dengan desain penelitian studi *cross sectional* dengan sampel 416 mahasiswa Program Studi Kedokteran FKIK UNJA yang memenuhi kriteria inklusi dan ekslusi. Waktu penelitian maret – april 2023. Data primer berupa gangguan keseimbangan dan gambaran telapak kaki. Analisis bivariat menggunakan uji *Chi – square*.

**Hasil :** Berdasarkan hasil tes keseimbangan, dan *wet foot print test* didapatkan mahasiswa yang mengalami *flat foot* berjumlah 43 orang (89,7 %), yang mengalami gangguan keseimbangan statis berjumlah 254 orang (61,1%), yang mengalami gangguan keseimbangan dinamis berjumlah 293 orang (70,4%), dan yang mengalami gangguan keseimbangan keduanya berjumlah 280 orang (67,3%). Berdasarkan hasil analisis *Chi – square* menunjukkan terdapat hubungan antara *flat foot* dengan gangguan keseimbangan dinamis (*p value* 0,02), hubungan antara *flat foot* dengan gangguan keseimbangan statis (*p value* 0,011), dan hubungan antara *flat foot* terhadap gangguan keseimbangan keduanya (*p value* 0,01)

**Kesimpulan :** Terdapat hubungan antara gangguan keseimbangan dengan *flat foot* pada mahasiswa Program Studi Kedokteran FKIK UNJA

**Kata kunci :** *Flat foot*, gangguan keseimbangan statis, gangguan keseimbangan dinamis