

# **THE EFFECT OF STRENGTHENING EXERCISE ON POSTURAL BALANCE AND FUNCTIONAL ABILITY IN CHILDREN WITH FLATFOOT**

Salsabila Salma Ripdianawati<sup>1</sup>, Alinda Nur Ramadhani<sup>2</sup>

[Salsabilasalma47@gmail.com](mailto:Salsabilasalma47@gmail.com)

<sup>1,2</sup>Universitas 'Aisyiyah Surakarta

## **ABSTRACT**

**Background:** Long-term flatfoot deformity will cause foot, ankle and knee pain. In addition, it will cause repeated acute trauma until foot deformity occurs. The constant pressure experienced by the muscles due to prolonged abnormal posture and repetitive movements will provide neurological adaptations and change biomechanics, causing muscle imbalance. One of the interventions that physiotherapy can provide in dealing with flatfoot is strengthening exercise.

**Objectiv::** to determine the effect of strengthening exercise on postural balance and functional ability in flatfoot. **Method:** This study used a quantitative method of quasy experimental type with a one group pre test and post test design. The sample was 32 respondents with purposive sampling technique. Measurement of postural balance using the pediatric balance scale and measurement of functional ability using the oxford ankle and foot questionnaire. Strengthening exercise intervention with a dose of 3 times a week for 4 weeks. **Results:** Based on the Wilcoxon test, the results obtained with a significance value on postural balance of 0.004 ( $p < 0.05$ ) and on functional ability of 0.008 ( $p < 0.05$ ). **Conclusion:** There is an effect of strengthening exercise on postural balance and functional ability in flatfoot children.

**Keywords:** Child; Flatfoot; Strengthening Exercise