

EVALUATION OF FOOT POSTURE, MUSCLE STRENGTH, FUNCTIONAL PERFORMANCE, AND POSTURAL CONTROL IN CHILDREN WITH ISOLATED GASTROCNEMIUS MUSCLE SHORTNESS

Fatma EREN ZENGİN

ORCID: 0000-0003-2348-1153

BEZMIALEM VAKIF UNIVERSITY
INSTITUTE OF HEALTH SCIENCES
DEPARTMENT OF PHYSIOTHERAPY AND
REHABILITATION MASTER'S PROGRAMME WITH
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SUPERVISOR

Deniz TUNCER, Asst. Prof

ORCID: 0000-0003-4975-827X

BEZMIALEM VAKIF UNIVERSITY
INSTITUTE OF HEALTH SCIENCES
DEPARTMENT OF PHYSIOTHERAPY AND REHABILITATION
ISTANBUL – TURKEY
dtuncer@bezmialem.edu.tr

THESIS ABSTRACT

This thesis aimed to evaluate foot posture, muscle strength, functional performance, and postural control in children with isolated gastrocnemius muscle shortness (IGMS). Fourteen children followed for IGMS by the Orthopedics and Traumatology Department of Bezmialem Vakif University Hospital were included in the IGMS group, and 14 healthy children without gastrocnemius muscle shortness were included in the control group. Demographic information of the children was collected using a sociodemographic evaluation form. Clinical evaluations of both groups were conducted. Our study demonstrated that in children with IGMS, foot posture, muscle strength, functional performance, and postural control were poorer compared to their healthy peers. It also highlighted the need to consider the possibility of IGMS, particularly in children with observed pes planus.

APPLICATION AREAS OF THE THESIS RESULTS

Physical therapy and rehabilitation programs for children with isolated gastrocnemius muscle shortness can play a significant role in improving postural balance and overall motor functions by increasing muscle flexibility. Targeted programs can enhance mobility and quality of life in children with IGMS.

ACADEMIC ACTIVITIES

1. A case presentation titled 'Physiotherapy and Rehabilitation Practices in a Case Diagnosed with Fucosidosis' was made at the 5th International Haliç Multidisciplinary Scientific Research Congress held on 15-16 January 2023.
2. An oral presentation titled 'Evaluation of Hand Eye Coordination in Children with Isolated Gastrocnemius Muscle Shortness' was made at the Nuh Naci Yazgan National Health Sciences Congress held on 1-2 May 2024.



KEYWORDS

- Gastrocnemius
- Foot Posture
- Muscle strength,
- Functional Performance
- Postural Control



CONTACT

erenfatma.654@gmail.com

