

This thesis aimed to demonstrate the effect of Dynamic Neuromuscular Stabilization autotherapy on functional foot disorders in comparison with autotherapy according to the analytical approach.

The theoretical part summarized the findings regarding foot and gait kinesiology, developmental kinesiology as a pivotal period for gait development and foot formation, the relationship between foot and posture, and functional foot defects.

METHODOLOGY: In this study, 26 probands aged 20-26 years were divided into two groups, namely, the DNS group and the Analyst group. The names of the groups were chosen according to the type of self-therapy. At the beginning of this work, an initial measurement was conducted where probands in both groups were measured using Physionesnig platform in selected five tests. These tests are Static analysis, Unilateral Stance, Sit-to-stand, Weight bearing squat, Dynamic analysis. After the initial measurement using the Physiosensing platform, individual probands were instructed and coached by the physiotherapist in self-therapy regarding the given exercise set-up. After a 6-week autotherapy session, a second measurement was performed. The measured data were statistically processed using the Jamovi program, version 2.3.26.0.

RESULTS: The main results of the study show that neither group improved in more than half of the measured parameters after 6 weeks of autotherapy, as we expected. Despite this, significant results were obtained.

Autotherapy according to both the DNS and Analytical Approach had a statistically significant effect on the reduction of mean plantar pressure; both in static and dynamic measures.

After 6 weeks of autotherapy, the DNS group improved statistically significantly more in the Maximum Pressure parameter compared to the Analytic group.

Autotherapy according to DNS significantly influenced the reduction in maximum plantar pressure during walking, specifically Max Pressure, where $p < .001$ and Cohen's $d = 1.4402$.

CONCLUSION: The results of this study confirm that the 6-week autotherapy in both groups had an effect on some selected parameters assessing foot function in the five selected tests. The DNS group showed significant improvement in 9 measured parameters, while the Analytic group showed improvement in only 6 measured parameters.