

STUDY PROTOCOL

Official Title: The Effects of Kinesio Taping on Proprioception, Alignment, and Dynamic Balance in Individuals with Chronic Ankle Instability: A Randomized Controlled Trial

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Title of the Study

The Effects of Kinesio Taping on Proprioception, Alignment, and Dynamic Balance in Individuals with Chronic Ankle Instability: A Randomized Controlled Trial

Background and Rationale

Chronic ankle instability (CAI) is a common consequence of repeated ankle sprains, leading to impaired proprioception, misalignment, and deficits in postural control. Kinesio taping is a therapeutic technique widely used in clinical settings to enhance proprioception, support joint alignment, and improve neuromuscular control. However, there is limited high-quality evidence on the efficacy of Kinesio taping in individuals with CAI. This study aims to investigate the effects of Kinesio taping on proprioception, alignment, and dynamic balance.

Objectives

Primary Objective:

To evaluate the effects of Kinesio taping on proprioceptive ability in individuals with chronic ankle instability.

Secondary Objectives:

To assess changes in lower extremity alignment and dynamic balance following the intervention.

Study Design

This study is designed as a single-blind, randomized controlled trial with two parallel groups:

Intervention group: receiving Kinesio taping

Control group: receiving no taping

The intervention will last for 4 weeks, with assessments at baseline and post-intervention.

Participants

A total of 40 individuals aged 18–35 years with a clinical diagnosis of chronic ankle instability will be recruited from university clinics and local physiotherapy centers.

Inclusion criteria:

History of at least one ankle sprain

Self-reported episodes of instability

Score below 24 on the Cumberland Ankle Instability Tool (CAIT)

Intervention

The intervention group will receive standardized Kinesio taping applied to the ankle and lower leg three times per week for four weeks by a certified physiotherapist.

The control group will receive no taping. Both groups will continue with routine activities but will be asked to refrain from other physiotherapy modalities during the study period.

Outcome Measures

Primary Outcome:

Proprioception assessed by Joint Position Sense Test (measured at baseline and post-intervention)

Secondary Outcomes:

Lower extremity alignment assessed using the Q-angle and navicular drop test

Dynamic balance assessed using the Star Excursion Balance Test (SEBT)

Data Analysis

Data will be analyzed using SPSS. Descriptive statistics will be used to summarize participant characteristics. Between-group comparisons will be performed using ANCOVA, adjusting for baseline values.

A significance level of $p < 0.05$ will be considered statistically significant.

Ethical Considerations

Ethical approval has been obtained from the institutional review board. Written informed consent will be obtained from all participants prior to participation.