
ORIGINAL RESEARCH

INVESTIGATING THE EFFECTIVENESS OF KINESIO® TAPING SPACE CORRECTION METHOD IN HEALTHY ADULTS ON PATELLOFEMORAL JOINT AND SUBCUTANEOUS SPACE

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ABSTRACT

Background: Limited quantitative, physiological evidence exists regarding the effectiveness of Kinesio® Taping methods, particularly with respect to the potential ability to impact underlying physiological joint space and structures. To better understand the impact of these techniques, the underlying physiological processes must be investigated in addition to the examination of more subjective measures related to pain in unhealthy tissues.

Hypothesis/Purpose: The purpose of this study was to determine whether the Kinesio® Taping Space Correction Method created a significant difference in patellofemoral joint space, as quantified by diagnostic ultrasound.

Study Design: Pre-test/post-test prospective cohort study

Methods: Thirty-two participants with bilaterally healthy knees and no past history of surgery took part in the study. For each participant, diagnostic ultrasound was utilized to collect three measurements: the patellofemoral joint space, the distance from the skin to the superficial patella, and distance from the skin to the patellar tendon. The Kinesio® Taping Space Correction Method was then applied. After a ten-minute waiting period in a non-weight bearing position, all three measurements were repeated. Each participant served as his or her own control.

Results: Paired *t* tests showed a statistically significant difference (mean difference = 1.1 mm, $t_{[3,1]} = 2.823$, $p = 0.008$, $g = .465$) between baseline and taped conditions in the space between the posterior surface of the patella to the medial femoral condyle. Neither the distance from the skin to the superficial patella nor the distance from the skin to the patellar tendon increased to a statistically significant degree.

Conclusions: The application of the Kinesio® Taping Space Correction Method increases the patellofemoral joint space in healthy adults by increasing the distance between the patella and the medial femoral condyle, though it does not increase the distance from the skin to the superficial patella nor to the patellar tendon.

Level of Evidence: 3

Key words: Diagnostic ultrasound, Kinesio® tape, patellofemoral joint space, tibiofemoral joint

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