

Kinesio Tape as a Primary Modality for Pain Management: A Meta-Analysis

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PURPOSE: The purpose of this study is to evaluate the immediate and long term efficacy of Kinesio Tape (KT) as a primary modality for pain management, as compared to no treatment (NT) or a placebo tape (PT) application. **METHODS:** The electronic databases MEDLINE and ACADEMIC SEARCH PREMIERE were searched using the keywords “kinesio tape,” “kinesiotape,” “kinesio taping,” and “kinesiotaping.” The initial searches returned 115 articles, 14 of which met the inclusion/exclusion criteria and reported sufficient results to be included in the meta-analysis calculations. 83 comparisons were calculated from the 14 studies included. Data extracted for use in the meta-analysis calculations included the participants’ demographic characteristics, interventions performed, and results including group means, standard deviations, mean differences, standard errors, confidence intervals, p-values, and t-values. The MetaEasy Excel add-in (Kontopantelis & Reeves, 2009) was used to calculate the Cohen’s d effect size for each comparison. **RESULTS:** 22 comparisons contrasted the NT and PT groups, and demonstrated a significant placebo effect ($t(21) = 2.21$, $p = 0.038$, Cohen’s $d = 0.20$). 39 comparisons contrasted the NT and KT groups, and demonstrated a significant treatment effect ($t(38) = 8.36$, $p < 0.001$, Cohen’s $d = 1.05$). 22 comparisons contrasted the PT and KT groups, and demonstrated a significant KT effect ($t(21) = 4.69$, $p < 0.001$, Cohen’s $d = 0.70$). An additional comparison was tested in which the immediate (first data collection within one hour of taping) impact of KT was compared to the long-term (last data collection after 24 hours after taping) impact of KT. Controlling for the nature of the control group (NT v. PT), the long-term impact ($M = 1.15$, $sd = 0.70$) was significantly larger than the immediate impact ($M = 0.55$, $sd = 0.74$, $F(1,57) = 9.58$, $p = 0.003$). **CONCLUSION:** PT decreased pain compared to NT, evidencing a small placebo effect. KT showed a moderate effect when compared to PT and a large effect when compared to the NT control groups. Also, the effect on pain was greater in long-term trials compared to immediate results. The meta-analysis suggests that KT reduces the level of reported pain. Additional meta-analyses are needed on other outcome measures, including muscle strength, proprioception, swelling, and range of motion.