Table
Long Arm Orthosis Wear

Subject	Wrist Cock-Up Used Prior	Length of LAO Wear (days)
1	NO	N/A
2	NO	47
3	NO	45
4	YES	19
5	YES	21
6	NO	35
7	NO	34

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The Effects of Kinesio Tape® and No Tape for Muscle Facilitation and Inhibition, for Collegiate Athletes With Self-Reported Shoulder Pain

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Purpose: The use of Kinesio Tape® as a therapeutic modality is a common intervention used in occupational therapy. However, there is a lack of research on the benefit of using Kinesio Tape®, especially during the occupation of sports. The purpose of this research was to determine if Kinesio Tape® causes a difference in muscle facilitation, inhibition, and pain, between Kinesio Tape® and no tape for collegiate athletes with self-reported shoulder pain.
Methods: This quantitative non-randomized design used a convenience sampling method. There were eleven participants with self-reported shoulder pain who were athletes on the men's and women's lacrosse and tennis teams from a division III university. Each participant attended one 30-45 minute session for data collection. During this session, each participant received all three taping conditions and performed four repetitions of 120 degrees of active shoulder flexion for the three separate trials (no tape, Kinesio Tape® inhibition, and Kinesio Tape® facilitation). Surface electromyography (sEMG) electrodes were placed on the anterior deltoid, supraspinatus, and lower trapezius to measure muscle facilitation and inhibition. Each participant completed the visual analogue scale (VAS) before and after each trial to measure pain. A one-way analysis of variance (ANOVA) with a Tukey post hoc test was utilized.
Results: No statistical significance was found for pain scores on the VAS between the taping methods of facilitation, inhibition, and no tape ($p = .118$). No statistical significance was found for the percentage of change in muscle function for each taping method; Anterior deltoid ($p = .993$), supraspinatus ($p = .997$) and lower trapezius ($p = .922$).
Conclusion: Based on the results Kinesio Tape® appears to not have an effect on muscle function or pain when utilizing the facilitation or inhibition taping method when compared to no tape.

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Collaborative Curriculum - Advancing Ergonomics Education by Incorporating the Expertise of a Certified Hand Therapist

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Purpose: Dental professions are at a high risk of experiencing musculoskeletal disorders (MSDs), with estimates indicating that between 60% and 96% of the workplace is impacted. [1] The dental hygiene studies (DHS) program at Pacific University previously included standardized ergonomics education in their curriculum, however these principles were reinforced predominantly through passive techniques (posters and brochures). In 2017, Pacific adopted a plan for ergonomics curricular revision that incorporated the expertise of a faculty member in Pacific's Physical Therapy (PT) program; this involved introducing the Core Four activity set to incoming DHS student cohorts by a PT who is a Certified Hand Therapist.
Methods: This study was approved as 'exempt' by the Pacific University IRB. First year DHS students at Pacific received the standard ergonomic curriculum in both the 2018 and 2019 (n = 32 each) graduating cohorts. Starting with the 2020 cohort, students received curriculum from experienced DHS and PT faculty members through a collaborative revision. As part of this enhanced model, the 2020 cohort received instruction in daily performance of the Core Four routine after every clinical-based course. Data from the 2018 and 2019 cohorts will be used as control data; the 2020 and 2021 data will serve as the experimental group. Each group of students was assessed using a set of standardized outcome measures, including the Neck Disability Index, the Upper Extremity QuickDASH, the Visual Analog Scale and a scale of self-efficacy for management of MSDs. Data collection for the control group will be complete in the spring of 2019 and the experimental group data will be available by the spring of 2021.
Results: The results of this investigation are pending; preliminary data for our control group will be ready for analysis by April 2019 and results will be disseminated at the meeting.
Conclusion: Ergonomic-based education through a collaborative model incorporates additional evidence, structure and strategies that may alleviate the potential for MSDs and promote corrective habit formation. In order to promote best practice, including input from both DHS and PT faculty to disseminate optimal instruction may advance ergonomic curriculum for first-year DHS students. Recommendations will be formally established once data analysis is complete.

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Outcome Trajectories for Pain, Disability, and Health Following Surgical Intervention for Peripheral Nerve Disorders

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Purpose: This research examines trajectories of pain, disability and health pre-surgery to 12 weeks post-op (PO) for patients diagnosed with an upper extremity peripheral nerve disorder (UE-PND) to describe overall recovery as well as compare trajectories between patients undergoing nerve decompression (ND) versus nerve reconstruction (NR).
Methods: Adult patients (n=149) undergoing 1 surgery by 1 surgeon for UE PND over a 3-year period participated in this study. Our sample included 60.4% males (n=90) with a mean age of 50.8 (range 18-85). Outcome data included pain on a 100-point visual analogue scale (VAS), self-rated disability with the Disabilities of the Arm, Shoulder and Hand (DASH), and self-reported health with the Short-Form 8 (SF-8) producing mental (MH) and physical (PH) component scores. Scores were converted to a 100-point scale with higher scores denoting better PH and MH and lower scores less disability and pain.

Ninety-seven patients had ND and 52 had NR. Example procedures for ND include carpal tunnel release or ulnar nerve transposition. NR includes nerve transfers and nerve grafting, or patients undergoing both ND and NR. Number of days PO for each visit was calculated and categorized into 1-week intervals to 12 weeks. The week with the poorest rating, return to baseline level, and 12-week PO as well as rates of change (ROC) between each time-point were computed for total sample population and each surgical group. Results from available outcome measures were placed in appropriate time categories to create trajectory graphs for total sample population and surgical groups.
Results: While rates and timing varied among outcome measures, all measures demonstrated similar trends following surgery with poorest rating occurring a few weeks PO, return to baseline, and