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POWER WEB, RESISTIVE HAND EXERCISER AND HAND PUTTY EXERCISES FOR PINCH STRENGTH IN DENTAL PROFESSIONALS

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ABSTRACT

Hand and wrist pain are more prevalent among dental professionals than the general public, due to the sustained grips and prolonged awkward postures throughout the day. Up to 40% of dentists and nearly 75% of dental hygienists experience frequent hand pain and wrist pain. An important risk factor for these disorders is forceful pinching. Hence the objective of this study is to identify and prevent the occurrence of wrist and hand related musculoskeletal problem in budding dental professionals by providing early intervention by assessing the pinch strength and to rule out the improvement of pinch strength after the exercise program. The subjects in Group A underwent exercises involving Power web and Resistive hand exerciser while Group B underwent exercises with Hand Putty . The duration of intervention was for 30 minutes for 3 weeks. The outcome measure was palmar pinch strength, which was evaluated by Pinchometer. The results showed a significant improvement in palmar pinch strength in both the groups. (mean difference for Group A, mean difference for group B). Also, the difference between the two groups was significant at the level of <0.05 (p= 0.047). On the basis of mean difference obtained for both the groups the study concluded that even though there was improvement in pinch strength for both the groups, palmar pinch strength of participants in Group A (Power web and Resistive Hand Exerciser Exercises) is more as compared to group B. The results of the study indicate that participants who underwent power web and Resistive Hand Exerciser had performed better than the participants who underwent Hand Putty exercises in Palmar Pinch strength as measured by Pinchometer

KEYWORDS: Power Web, Resistive Hand Exercise, Hand Putty Exercise, Palmar Pinch Strength