

where a numerical value between one and seven was assigned to each participant's swallowing competency.

Appropriate parametric and non-parametric tests were employed within this research, including a 2

evidence for the Shaker exercise improving thyrohyoid muscle shortening, a muscle contraction required for UES opening.

All of these studies provide information that is of high importance to the clinical field of speech-language pathology. In a study conducted by Jones, Knigge and McCulloch, 2014, 206 speech language pathologists completed a survey in which they were asked to indicate the type of management they most commonly recommended. Respondents were divided into two groups. 73% of the first group and 84% of the second group indicated that the Shaker exercise was the exercise that they most commonly recommended for the treatment of dysphagia. Therefore, the results of this survey reflect the need for best practice guidelines for clinicians working with patients that have dysphagia.

The evidence within this research is suggestive of a moderate grade in recommendation. While the level of evidence is strong based on the RCT designs being employed, the sample size and participant control limitations decrease the grading of recommending the Shaker exercise in clinical practice. There is positive evidence for the use of the Shaker exercise in rehabilitating swallowing function in individuals with dysphagia due to UES dysfunction, however due to the limitations within these studies, it is recommended that further research be performed that includes more participants and a higher level of control over exercise completion.

C o n c l u s i o n

The studies reviewed suggest that the Shaker exercise can rehabilitate swallowing function in those with dysphagia due to UES dysfunction. Positive results have been found for the Shaker exercise improving hyoid and laryngeal movement, UES opening, thyrohyoid muscle shortening and reducing postswallow residue as well as enabling tube-fed patients to return to oral feeding. However further research is needed involving an RCT design with a larger sample size and more control over the patient's completion of the exercise.

C l i n i c a l I m p l i c a t i o n s

Rehabilitating swallowing function is important to the health and ultimately the survival of patients with dysphagia. Therefore, it is essential that speech

language pathologists provide individuals with effective intervention that will rehabilitate their swallowing function. Although additional research is needed that involves more participants and a higher level of control over subject participation, the Shaker exercise may be an effective approach in rehabilitating swallowing function in individuals with dysphagia due to UES dysfunction.

R e f e r e n c e s

Antunes, E.B. & Lunet, N. (2012). The effects of the head