Construction of Pediatric Dysphagia Screening Tool

Thesis Submitted for Partial Fulfillment of Medical Degree in Phoniatrics

By

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Summary

Dysphagia is a difficulty in feeding and/or swallowing. Approximately 1% of children in the general population will experience swallowing difficulties **(Bhattacharyya, 2015)**; the incidence rate is much higher in some clinical populations, e.g. children with cerebral palsy, traumatic brain injury, and airway malformations **(Lefton-Greif & Arvedson, 2008**).

There are many adults validated screening questionnaires for early and easy detection of dysphagia which include the Eating Assessment Tool (EAT-10) **(Belafsky et al, 2018)**, swallowing disturbance questionnaire (**Manor et al, 2007; Cohen &Manor,2011)**, Sydney Swallow Questionnaire **(Wallace et al, 2000; Holland et al,2011)**.

There was no validated simple tool for pediatric dysphagia at the beginning of this study in 2016, however Pediatric version of EAT-10 was published in 2017 **(Arslan et al, 2017**). There is high variability among the many assessments available in the area of feeding and swallowing function in pediatrics. There is limited information available on the validity and reliability of these assessments. Thus, most assessments need to be used with caution **(Heckathorn et al, 2016)**.

The present study aimed at construction of an easy tool for detection of dysphagia among pediatric population and evaluation of its validity and reliability for early detection of dysphagia and avoid its complications.

This study consisted of 60 children having different disorders may predispose to or a result of dysphagia as neurological disorders, Down syndrome, congenital

anomalies with orofacial deficit, submucus cleft palate, unexplained underweight. By applying the PDQ (the designed questionnaire), clinical feeding- swallowing observation and FEES for all children of the study group, results revealed that the PDQ was an easy applicable tool with an acceptable reliability and validity in detecting dysphagia among children and predicting aspiration which is a serious complication. A cut of score $\geq$ 3 predicted dysphagia with 97.9% sensitivity and 100% specificity and cut of score 9 predicted aspiration with 84.2% sensitivity and 85.4% specificity. These results were agreed with EAT-10 and PediEAT-10 which are the most common easily applicable dysphagia questionnaires.