## Chapter 20

# Navigating Dysphagia in Child Developmental Communication Disorders Using Telepractice Methods

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### **ABSTRACT**

Childhood and adolescence are crucial periods for physical and cognitive development, and dysphagia can negatively impact growth and development. Telepractice offers accessibility, convenience, and flexibility for pediatric dysphagia patients, allowing parents to engage with healthcare professionals from home while promoting a familiar setting and reducing travel. However, technical obstacles, limited physical assessment, and privacy concerns must be addressed. The aim of this chapter is to thoroughly pinpoint modern diagnostic and intervention methods performed by trained specialists to ensure accurate diagnosis and aid in the development of an individualized rehabilitation program in the era of telepractice. Critical considerations for the current and future usage of telepractice in pediatric dysphagia services are mainly presented in this chapter. Prioritizing feeding and swallowing problems are essential for survival and social engagement, making telepractice an innovative and sustainable solution for children with developmental communication disorders.

### INTRODUCTION

Feeding and swallowing are vital physiological functions necessary for the human body's survival, that affect growth, health, and socialization across the lifespan. Feeding and swallowing have an important social function as they set the occasion for social interactions. For example, participation in meals (e.g.,

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eating with family and/or friends) is extremely widespread among different cultures and is an important aspect of both daily and social life. These processes accompany a series of socialization events, during which the individual can develop dialogue and share thoughts, knowledge, feelings, stories, and experiences. In its social dimension, feeding enables the individual to integrate into society, to develop psychologically, culturally, and emotionally, and thus lead a better quality of life (Wilkinson et al., 2021).

Swallowing is a complex neuromuscular, dynamic, semi-autonomous sensorimotor, and cognitive process. As a physiological function, swallowing ensures the provision of adequate nutrition and hydration, through the simultaneous execution of the following three vital functions: a) airway protection, b) nourishment, and c) hydration, while significantly contributing to the maintenance of the human body (Rosenbek & Jones, 2007; Shaker et al., 2012).

### 1.1. Feeding and Swallowing Difficulties

As vital functions, feeding and swallowing require constant neurological control as well as the coordinated action of 30 muscle groups (mouth, pharynx, oesophagus, larynx), 5 cranial nerves, and 4 cervical nerves from the central nervous system (CNS) (Perlman & Schulze-Delrieu, 1996). Normal swallowing is a safe, efficient, pleasant, and smooth process and is related to organic, socio-cultural, psychological, and environmental factors. Swallowing is typically a safe, comfortable, and efficient process, affected by various organic, socio-cultural, psychological, and environmental factors. However, individuals may develop dysphagia if the anatomical integrity and function of the structures involved in swallowing are affected by any dysfunction, damage, or disorder.

During the initial developmental stage, newborns are typically fed through either breastfeeding or bottle-feeding. As infants reach their third month, their brainstem reflexes, such as the sucking reflex, disappear. Around six months of age, they begin to chew and consume different types of food with varying consistencies. This process helps in strengthening their oral muscles. Starting from the oral cavity, as infants and children grow and develop, the absolute and relative size and shape of oral and pharyngeal structures change, and chewing matures. The "adult" swallowing pattern is typically established during adolescence once all the necessary anatomical structures involved in swallowing have fully formed (van den Engel-Hoek et al., 2015).

### 1.1.1. Dysphagia

The term dysphagia is derived from the synonyms of the ancient Greek words "dis" + "efagon" meaning "difficulty" + "eat", respectively. In its synthesis the word "dysphagia" describes any difficulty or inability to effectively and safely manage and transfer saliva, food of any consistency (liquids, semiliquid, solids), and drugs/medication from the oral cavity, into the pharynx, the esophagus and finally into the stomach. The terms dysphagia, swallowing disorder, and deglutition disorder/dysfunction are frequently used interchangeably to describe the same condition (Paik & Kim, 2021; Perren et al., 2019).

According to Taber's Cyclopedic Medical Dictionary, dysphagia can be classified into five subcategories 1. Constricta - disorder of swallowing due to narrowing of the pharynx or the esophagus 2. Lusoria - swallowing disorder due to the compression of the esophagus by the right subclavian artery 3. Oropharyngeal dysphagia - difficulty transferring food from the mouth to the esophagus 4. Paralytica - swallowing disorder due to paralysis of the muscles of the mouth, pharynx, or esophagus 5. Spastica - swallowing disorder that arises from spasms of the pharynx or esophagus (Davis, 1993). However,

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