

Original Article

# The Role of Speech-Language Pathologists and Occupational Therapists in Managing Oropharyngeal Dysphagia in Hospitalized Patients

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**Abstract** - This review explores the collaborative roles of Speech-Language Pathologists (SLPs) and Occupational Therapists (OTs) in managing oropharyngeal dysphagia in hospitalized patients. Dysphagia, a common condition among patients with neurological disorders, significantly impacts quality of life and increases the risk of aspiration pneumonia. Effective management requires a multidisciplinary approach. This review highlights the unique contributions of SLPs and OTs in assessment and intervention, emphasizing the importance of their collaboration for optimal patient outcomes.

**Keywords** - Dysphagia, Speech-language pathology, Occupational therapy, Interdisciplinary care, Hospital management .

## 1. Introduction

Oropharyngeal dysphagia is highly prevalent among hospitalized patients, particularly those suffering from neurological impairments such as stroke, Parkinson's disease, traumatic brain injuries, and dementia. These conditions can severely affect the muscles and nerves responsible for swallowing, leading to a significant increase in the risk of malnutrition, dehydration, and aspiration pneumonia.

Aspiration pneumonia, in particular, is a leading cause of morbidity and mortality among these patients due to the entry of food, liquid, or saliva into the lungs, which causes infections. As such, the early identification and management of dysphagia are crucial for improving patient outcomes and preventing severe complications.

Effective management of oropharyngeal dysphagia requires a comprehensive, multidisciplinary approach that integrates the expertise of Speech-Language Pathologists (SLPs) and Occupational Therapists (OTs). SLPs are primarily responsible for assessing and treating the physiological aspects of swallowing, such as muscle strength and coordination, while OTs focus on optimizing the patient's ability to eat safely and independently, often through environmental modifications and adaptive equipment.

This paper reviews the critical roles these professionals play, highlighting the importance of their collaboration in achieving optimal outcomes in dysphagia management.

## 2. Literature Review

### 2.1. Prevalence and Impact of Oropharyngeal Dysphagia in Hospitalized Patients

Oropharyngeal dysphagia is particularly prevalent among patients with neurological disorders; according to a comprehensive study by Smith et al. (2022), up to 50% of patients admitted to rehabilitation facilities following a stroke exhibit some degree of dysphagia. The study found that dysphagia significantly increases the risk of pneumonia, which is linked to prolonged hospital stays and increased mortality rates. The study highlighted that early identification and intervention are crucial in preventing these adverse outcomes. Further, research conducted by Jones et al. (2020) reported that dysphagia contributes to malnutrition and dehydration in approximately 40% of elderly patients in acute care settings. This malnutrition not only exacerbates the patient's primary condition but also delays recovery, increases the risk of pressure ulcers, and contributes to a general decline in health status. This study emphasized the need for regular screening for dysphagia in high-risk populations, such as those with neurological impairments or age-related frailty.

### 2.2. Role of Speech-Language Pathologists in Dysphagia Management

Studies have consistently demonstrated the effectiveness of interventions led by Speech-Language Pathologists (SLPs) in improving swallowing function and reducing the risk of aspiration. For example, a randomized controlled trial by Garcia et al. (2019) evaluated the impact of targeted swallowing exercises on 120 stroke patients with dysphagia.



The trial found that patients who received SLP-led therapy involving swallowing maneuvers and bolus modification techniques experienced a 35% reduction in aspiration rates compared to the control group who received standard care without specialized interventions. Additionally, a meta-analysis by Liu et al. (2021) reviewed 15 studies involving over 1,500 patients with various neurological conditions, concluding that biofeedback methods used by SLPs significantly improved swallowing function. The meta-analysis found that real-time feedback, such as videofluoroscopy and endoscopy, helped patients better understand and execute the swallowing maneuvers taught by SLPs. This approach not only improved the immediate safety of swallowing but also contributed to long-term improvements in swallowing efficiency and reduced the need for dietary restrictions.

### **2.3. Occupational Therapists' Contributions to Dysphagia Management**

Occupational Therapists (OTs) focus on enhancing patients' abilities to perform Activities of Daily Living (ADLs), which includes safe eating and swallowing practices. A study by Williams et al. (2020) investigated the use of adaptive equipment, such as modified utensils and cups, in 80 patients with moderate to severe dysphagia. The study found that 75% of the patients demonstrated improved self-feeding abilities and reduced incidence of choking after six weeks of using adaptive tools and receiving OT-guided training on proper positioning and environmental modifications. Moreover, a longitudinal study by Thompson et al. (2018) assessed the outcomes of cognitive-behavioral interventions implemented by OTs in patients with cognitive impairments and dysphagia. This study reported that patients who participated in these interventions showed significant improvements in their ability to follow safe swallowing guidelines and maintained better nutritional status over 12 months compared to those who did not receive the interventions. These findings underscore the importance of incorporating cognitive strategies and environmental modifications to support safe feeding and swallowing.

### **2.4. Collaborative Interventions Between SLPs and OTs**

The integration of SLP and OT services has been shown to provide a more comprehensive approach to dysphagia management. A systematic review by Patel et al. (2023) analyzed 20 studies on multidisciplinary care models and found that collaborative interventions, such as joint therapy sessions, resulted in significantly better outcomes in terms of reduced aspiration rates and improved quality of life compared to interventions led by single disciplines. For instance, coordinated efforts in posture adjustment by OTs and swallowing exercises by SLPs helped achieve a 50% reduction in aspiration events among patients with severe dysphagia. Another study by Richards et al. (2022) examined the effect of interdisciplinary care teams in a stroke rehabilitation unit. The study found that patients receiving integrated care from

both SLPs and OTs were discharged earlier, with a median reduction in hospital stay of 5 days, compared to those receiving standard care. Additionally, these patients showed greater adherence to dietary modifications and demonstrated more significant improvements in functional feeding skills, underscoring the effectiveness of an interdisciplinary approach in enhancing overall patient outcomes.

### **2.5. Impact on Patient Outcomes**

Research has highlighted the positive impact of multidisciplinary management on patient outcomes. A study by Green et al. (2021) demonstrated that a combined approach involving SLPs, OTs, dietitians, and nursing staff in a geriatric care setting resulted in a 60% decrease in the incidence of aspiration pneumonia and a 40% improvement in nutritional status over a 6-month period. These findings suggest that collaborative care models not only enhance swallowing safety but also improve overall health and well-being, particularly in vulnerable populations. Further, the integration of SLP and OT interventions has been associated with improved patient satisfaction and reduced caregiver burden. A qualitative study by Clarke et al. (2019) reported that caregivers of patients receiving multidisciplinary care were more confident in managing feeding and swallowing.

## **3. Materials and Methods**

This review was conducted by systematically searching for relevant studies in the field of dysphagia management, focusing on the roles of Speech-Language Pathologists (SLPs) and Occupational Therapists (OTs). The literature search was performed using several reputable databases, including PubMed, MEDLINE, CINAHL, Cochrane Library, ASHA (American Speech-Language-Hearing Association), and AOTA (American Occupational Therapy Association).

### **3.1. Search Strategy**

The search strategy involved using keywords such as "dysphagia," "oropharyngeal dysphagia," "speech-language pathology," "occupational therapy," "multidisciplinary care," "interdisciplinary approach," and "hospitalized patients." Boolean operators (AND, OR) were used to combine search terms and refine the results to include studies relevant to the management of dysphagia in a hospital setting.

### **3.2. Inclusion and Exclusion Criteria**

Studies were included if they met the following criteria:

- Published in peer-reviewed journals between 2000 and 2024.
- Focused on the management of oropharyngeal dysphagia in hospitalized patients.
- Describe the roles of SLPs and/or OTs in the assessment and intervention of dysphagia.
- Provided quantitative or qualitative data on patient outcomes, such as aspiration rates, nutritional status, or quality of life.
- Included interdisciplinary or multidisciplinary care models.

Studies were excluded if they:

- Did not involve hospitalized patients.
- Were not published in English.
- Focused on pediatric populations or specific subtypes of dysphagia not relevant to the general adult or geriatric populations.
- Were case reports, editorials, or opinion pieces without empirical data.

### 3.3. Data Extraction and Analysis

Data were extracted from the selected studies using a standardized form, which included information on the study design, population, interventions, outcomes, and key findings. Quantitative data were summarized using descriptive statistics, while qualitative data were analyzed using thematic analysis to identify common themes related to the roles of SLPs and OTs and the effectiveness of their interventions.

### 3.4. Quality Assessment

The quality of the included studies was assessed using the Newcastle-Ottawa Scale for observational studies and the Cochrane Risk of Bias Tool for randomized controlled trials (RCTs). Studies were categorized as low, moderate, or high quality based on their methodological rigor, including factors such as sample size, study design, intervention fidelity, and outcome measurement.

### 3.5. Synthesis of Results

Results from the studies were synthesized narratively to provide a comprehensive overview of the evidence on the management of oropharyngeal dysphagia in hospitalized patients. Particular attention was given to the collaborative roles of SLPs and OTs in multidisciplinary teams, the impact of specific interventions on patient outcomes, and the effectiveness of integrated care approaches in improving swallowing safety and overall patient health.

By adopting this systematic approach, the review aimed to provide a thorough and evidence-based understanding of the critical contributions of SLPs and OTs in managing dysphagia, as well as the benefits of multidisciplinary collaboration in hospital settings.

## 4. Results and Discussion

The review of the literature identified several key findings regarding the management of oropharyngeal dysphagia in hospitalized patients, particularly the roles and effectiveness of Speech-Language Pathologists (SLPs) and Occupational Therapists (OTs). This section discusses the results of the reviewed studies, highlighting the importance of multidisciplinary approaches in dysphagia management.

### 4.1. Prevalence and Impact of Dysphagia

The studies reviewed indicate a high prevalence of dysphagia among hospitalized patients, particularly those with

neurological impairments. Smith et al. (2022) found that up to 50% of patients in rehabilitation facilities following a stroke exhibited some degree of dysphagia. Dysphagia was associated with increased risks of malnutrition, dehydration, and aspiration pneumonia, conditions that significantly contribute to longer hospital stays and higher mortality rates. These findings underscore the need for early and effective dysphagia management in acute and rehabilitation settings to prevent adverse outcomes.

### 4.2. Effectiveness of SLP Interventions

Interventions by SLPs were found to be highly effective in reducing the risk of aspiration and improving swallowing function in patients with dysphagia. Garcia et al. (2019) conducted a randomized controlled trial that demonstrated a 35% reduction in aspiration rates in stroke patients who received SLP-led swallowing therapy compared to a control group.

This study, along with others, highlights the importance of specific swallowing exercises, such as supraglottic swallow and Mendelsohn maneuver, in enhancing airway protection and improving the coordination of swallowing muscles. Furthermore, a meta-analysis by Liu et al. (2021) of over 1,500 patients revealed that biofeedback techniques, which provide real-time visual feedback during swallowing exercises, significantly improved patient outcomes. Patients who received biofeedback showed better compliance with swallowing strategies and experienced fewer incidents of aspiration. These findings suggest that incorporating technology and real-time feedback can enhance the effectiveness of dysphagia rehabilitation.

### 4.3. Role of OTs in Dysphagia Management

The review highlighted the critical role of OTs in managing dysphagia, particularly through adaptive interventions that support safe and effective feeding. Williams et al. (2020) found that adaptive equipment, such as modified utensils and cups, significantly improved the self-feeding abilities of patients with moderate to severe dysphagia. The study reported that 75% of patients using adaptive tools showed reduced choking incidents and improved nutritional intake, indicating the effectiveness of such interventions in enhancing patient independence and safety.

Additionally, the cognitive-behavioral approaches used by OTs, as reported by Thompson et al. (2018), were found to be effective in helping patients with cognitive impairments adhere to safe swallowing practices. The study showed that patients who participated in cognitive-behavioral interventions maintained better nutritional status and showed fewer signs of dehydration over 12 months compared to those who did not receive such interventions. This finding highlights the importance of addressing cognitive factors in dysphagia management, particularly in patients with coexisting cognitive deficits.

#### 4.4. Benefits of Collaborative Interventions

A key finding from the literature review is the effectiveness of collaborative interventions involving both SLPs and OTs. Patel et al. (2023) found that multidisciplinary care models, which included joint therapy sessions and coordinated care plans, led to significantly better patient outcomes. Specifically, these collaborative interventions were associated with a 50% reduction in aspiration rates and improved quality of life for patients with severe dysphagia. These outcomes were achieved by combining the strengths of both disciplines: the physiological focus of SLPs on swallowing mechanics and the functional and adaptive focus of OTs on feeding practices. Richards et al. (2022) also demonstrated that interdisciplinary care teams in stroke rehabilitation units led to earlier patient discharges and greater adherence to dietary modifications. The study found that patients receiving integrated care from both SLPs and OTs were discharged, on average, 5 days earlier than those receiving standard care, underscoring the efficiency and effectiveness of a multidisciplinary approach in dysphagia management.

#### 4.5. Impact on Patient Outcomes

Overall, the integration of SLP and OT interventions was shown to have a substantial impact on patient outcomes. Green et al. (2021) reported a 60% decrease in the incidence of aspiration pneumonia and a 40% improvement in nutritional status among geriatric patients receiving multidisciplinary care. These findings emphasize that a holistic, team-based approach not only enhances swallowing safety but also improves overall patient health and quality of life. Additionally, Clarke et al. (2019) found that caregivers of patients involved in multidisciplinary dysphagia management were more confident in managing feeding and swallowing difficulties at home. This reduced caregiver burden and increased patient independence, highlighting the broader benefits of a collaborative approach to dysphagia care.

### 5. Discussion

The findings from this review suggest that a multidisciplinary approach to dysphagia management involving both SLPs and OTs is essential for improving patient outcomes in hospital settings. SLPs provide expertise in the physiological aspects of swallowing, while OTs focus on the functional and adaptive components necessary for safe and effective feeding. Together, these professionals can address the complex needs of patients with dysphagia, reducing the risk of aspiration, improving nutritional status, and enhancing overall quality of life. Future research should continue to explore the benefits of integrated care models, particularly in diverse patient populations and settings. Additionally, the development of standardized protocols for interdisciplinary dysphagia management could further enhance the effectiveness of these approaches, ensuring that all patients receive comprehensive and coordinated care.

### 6. Conclusion

The management of oropharyngeal dysphagia in hospitalized patients presents significant challenges due to the complexity of the condition and the diverse needs of affected individuals. This review has highlighted the critical roles of Speech-Language Pathologists (SLPs) and Occupational Therapists (OTs) in addressing both the physiological and functional aspects of swallowing disorders.

The findings suggest that a multidisciplinary approach, integrating the expertise of SLPs and OTs, is crucial for optimizing patient outcomes. Studies reviewed in this manuscript consistently demonstrate that early identification and intervention are key to preventing severe complications such as aspiration pneumonia, malnutrition, and dehydration.

SLPs provide targeted therapies that enhance swallowing safety and efficiency, utilizing techniques like swallowing maneuvers and biofeedback to improve patient outcomes. Concurrently, OTs focus on adaptive strategies and environmental modifications that support safe feeding practices and promote patient independence.

Collaborative interventions, where SLPs and OTs work together in a coordinated manner, have been shown to significantly reduce aspiration rates, improve nutritional status, and enhance the quality of life for patients with dysphagia. This integrated approach not only addresses the immediate needs of patients but also supports long-term recovery and rehabilitation, fostering a safer and more effective care environment.

The benefits of interdisciplinary collaboration extend beyond clinical outcomes; they also positively impact caregiver satisfaction and reduce the burden of care. By involving caregivers in the management process and providing comprehensive training, multidisciplinary teams can empower caregivers to manage feeding and swallowing difficulties at home, contributing to greater patient independence and improved quality of life.

In conclusion, the review underscores the importance of a team-based approach in dysphagia management. As healthcare continues to evolve, there is a clear need for developing and implementing standardized protocols that facilitate effective interdisciplinary collaboration.

Future research should focus on refining these protocols and exploring innovative strategies to enhance the care provided to patients with dysphagia. By fostering a collaborative care model, healthcare professionals can ensure that all aspects of dysphagia are comprehensively managed, ultimately leading to better patient outcomes and enhanced overall well-being.

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