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Short Report

Occupational Therapy Dysphagia Management in Selected Philippine Hospitals During the Time of the COVID-19 Pandemic

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Abstract

Due to the nature of dysphagia management, the continuation of its delivery by occupational therapists (OTs) during the COVID-19 pandemic is challenging. The high risk of infection and transmission associated with dysphagia management calls for innovative, safe, and effective strategies. The purpose of this report is to describe the current practices in dysphagia management by OTs in selected Philippine hospitals. Current practices include integrated infection control, telehealth, indirect service delivery, use of acrylic barriers, and exercise videos. The effects of the COVID-19 pandemic are shaping the practice of occupational therapy in dysphagia management in the current time and beyond.

Key Words: *COVID-19, dysphagia, infection control, telehealth, occupational therapy*

INTRODUCTION

The COVID-19 pandemic that started in the first quarter of 2020 profoundly affected people's lives worldwide. Health systems were shaken, highlighting the lack of preparedness and continuity plans in the face of a widespread viral outbreak.[1] In the Philippines, we have observed that some hospital services had to close down to redirect services towards the quick establishment of COVID-19 wards. Tertiary health care services, including occupational therapy, had to cease operations for more than six months due to a lack of existing health guidelines about infection control. It is widely recognized that the COVID-19 transmission route is mainly through physical contact and respiratory droplet exposure.[2] Thus, the following months saw the development of institutional guidelines and service-delivery strategies adopted by occupational therapy clinics in hospitals to enable the continuity of services amidst the pandemic.

OCCUPATIONAL THERAPY AND DYSPHAGIA MANAGEMENT

Dysphagia is a medical condition characterized by a swallowing disorder. Management of dysphagia involves an interprofessional team, commonly comprising of medical doctors, speech-language pathologists (SLPs), and occupational therapists (OTs), to name a few. OTs have a role in the assessment in the management of eating, which requires swallowing.[3] Occupational therapy in dysphagia management involves providing direct services addressing performance issues involved in eating across diagnoses and age groups. In the

Philippines, dysphagia management occurs in hospitals, clinics, or in the clients' homes. While dysphagia management is a team approach, direct therapeutic services have mainly been referred to OTs due to the lack of SLPs in the Philippines.[4-5] Hospital-based OTs working with adult and elderly clients manage dysphagia-related problems at bedside or in the clinic. Due to the sudden and profound effect of the COVID-19 pandemic, occupational therapy services in hospital settings had to cease operations for several months until guidelines and strategies were developed to manage infection control. Nevertheless, the Filipino clients' need for occupational therapy services continues and has been evident.

Continuation of occupational therapy is needed, but with consideration on infection control and within local and institutional health guidelines[6-7] because dysphagia management is a non-invasive aerosol producing procedure that might cause OTs to be in contact with viral particles. When occupational therapy services resumed, operations were scaled down, affecting the number of clients served and clinic hours. Furthermore, most clients needing dysphagia management are elderly people who have diseases such as cerebrovascular accident, coronary disease, or respiratory disease, increasing their risks of developing a severe form of COVID-19.[8] Herein, we describe the current dysphagia management practices recounted by occupational therapy managers among three tertiary hospitals within the National Capital Region of the Philippines.

OCCUPATIONAL THERAPY DYSPHAGIA MANAGEMENT DURING THE COVID-19 PANDEMIC IN THE PHILIPPINES

During hospital-based occupational therapy services suspension, occupational therapy staff members had to be re-assigned to other infection control-related duties (i.e., triage, infection control). These experiences have provided them with the knowledge and skills necessary to help develop their own institutional guidelines and develop strategies aimed at the resumption and continuation of hospital-based services amidst the pandemic. However, when this report was written, most hospitals offering occupational therapy were limited to the provision of services among COVID-19 negative clients. The succeeding section identifies the most common and interesting occupational therapy practices in dysphagia management during the COVID-19 pandemic among several tertiary hospitals.

Enforcing infection control guidelines. Standard precautions involve strategies to decrease the risk of infection and transmission of pathogens.[9] Previous practice in dysphagia management before the pandemic minimally involved the use of a surgical mask and gloves.10 However, the current practice now involves using other protective personal equipment (PPE) such as face shields, long-sleeved gowns and aprons, and surgical caps.[8,10] During the period of service cessation, OTs have been educated on current guidelines on infection control. Thus, dysphagia management practices now include stringent procedures of sterilization and disinfection. Occupational therapy practice has now adopted strict hand hygiene before and after treatment, ultraviolet radiation area in the clinic used for sterilization of PPEs, installation of high-efficiency particulate air filters inside treatment areas, and frequent sterilization of the clinic following recommended practices.[8,11,12] Feeding utensils and food used in dysphagia management come from the hospital's dietary services, where standard cleaning and sterilization procedures are performed (i.e., use of water with detergent or chemical cleaners, utensil washer-sanitizer, sterilization of metal utensils in a high-temperature water bath, disinfection of plastic utensils in disinfecting solution).

Pre-pandemic, occupational therapy referrals for dysphagia management come from physiatrists. However, at present, clients must be cleared by the hospital's infection control committee (IPCC) as COVID-negative. An additional triage is performed in hospital-based clinics to further screen clients who are suspected of having the infection. Nevertheless, OTs must have a working knowledge of laboratory results (i.e., complete blood count (CBC), chest x-ray (CXR)) when receiving referrals. They must be able to monitor the client's condition and vital signs to decide whether sessions can continue or be deferred. Working closely and collaboratively with institutional infection specialists, OTs contribute,

implement, monitor, and provide feedback on the procedural algorithm enforced in the hospital.

Recently, changes in the health protocol in hospitals are being implemented by their respective IPCC because of the possible surge of COVID-19 infection last December 2020. More stringent measures are being implemented to prevent the possible infection of health workers. At present, for a client to receive dysphagia management, they must have a negative reverse transcription-polymerase chain reaction with supporting laboratory results (i.e., CBC, CXR) and standard symptom monitoring measures (i.e., temperature checks, oxygen saturation, client-reported symptoms), and have been endorsed by the hospital IPCC. These pre-requisites likewise extend to a designated caregiver assigned to accompany the client during therapy sessions. These tests need to be repeated and updated every two to four weeks.

Use of telehealth. Telehealth in occupational therapy refers to the use of information and communication technologies needed to deliver services.[13] In the Philippines, due to the increasing infection rate at the start of the pandemic, telehealth was suggested to be adopted for the safe continuation of occupational therapy service delivery.[6] During the periods of clinic cessation (or when clients cannot physically acquire services), OTs met their clients in the virtual environment. OTs provided synchronous dysphagia management, which included: thermotactile stimulation (i.e., anterior faucial arches were stimulated using a Q-tip dipped in iced water), oral-pharyngeal exercises (i.e., performed facial, buccal, oral, and lingual exercises), and when appropriate, trial feeding (i.e., graded presentation of varying texture of foods and liquids) and medicine swallowing (i.e., practiced training on swallowing liquid and solid medicines). This was facilitated by coaching the client and caregiver on how these are executed.

Pre-pandemic, dysphagia management has mainly been conducted in an in-person face-to-face session, which consisted of laboratory procedures, physical and cognitive evaluation, and delivery of direct services.[10] With the restrictions faced by Filipino OTs because of the COVID-19 pandemic, telehealth approaches were explored to provide continuity of dysphagia management, albeit in a virtual environment. The current telehealth practices adopted by OTs reported herein are moving towards universal strategies to evolve traditional dysphagia management into a telehealth form of practice in the new normal.[12,14]

Education, coaching, and supervision. Due to the high-risk mode of viral transmission associated with COVID-19, hospital guidelines recommend shorter direct contact with clients. Indirect interventions should be considered, where the OT services are provided to a client's family member or caregiver. Thus, in order to facilitate dysphagia management, OTs have adopted the role of educator and coach. As an educator, Filipino OTs taught clients, their families, and caregivers about feeding interventions and strategies. This is accomplished by demonstrating the strategies first and then asking the client or caregiver to provide a return demonstration. OTs provided feedback and standby assistance as necessary.

On the other hand, coaching involved indirect service provision, accomplished through electronic mails, phone calls, short messaging services, or direct messages through social media sites. The OTs provided recommendations (e.g., strategies, resources, exercise gradations). Supervision of client cases has likewise evolved to using novel communication strategies (e.g., video conferencing, direct messages through social media sites) to monitor clients' progress and any issues arising during the periods when direct face-to-face dysphagia management was unavailable. These are indirect interventions in contrast to previous practices, where the OT delivers the intervention. This was a welcome change because clients are enabled to participate in eating more independently in their contexts.

Continuity of rehabilitation at home has been a challenge in the management of dysphagia. Hence, OTs provided caregiver education as part of their occupational therapy session among clients with dysphagia. What we see these days is a shift in focus and underscores the invaluable role of caregivers.[15] Provision of indirect occupational therapy interventions that aim to empower caregivers with knowledge and skills to ensure dysphagia management continuity in

place should be the prevailing standard henceforth.

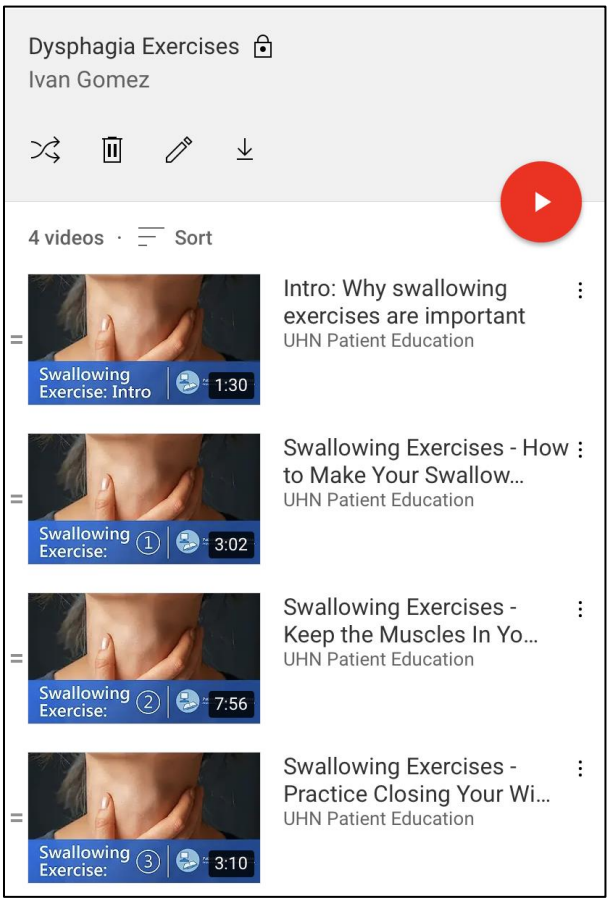
Use of acrylic barriers. Dysphagia management exposes both OTs and the client to the risk of droplet infection due to close contact with oral-pharyngeal musculatures. In order to facilitate the delivery of dysphagia intervention, OTs developed an acrylic barrier used during face-to-face sessions (Fig. 1). Inspired by the swab-testing booths used in COVID-19 testing, these barriers enabled the delivery of close-contact dysphagia intervention but reducing the risk for viral infection or transmission.

Fig. 1. Occupational therapists using an acrylic barrier during dysphagia management (simulated).

The use of acrylic barriers to prevent COVID-19-related infection has been reported elsewhere.[16-17] However, recent evidence supports aerosol transmission of the SARS-CoV-2 virus, especially in indoor spaces.[2] The evidence on whether acrylic barriers provide the needed protection to prevent virus transmission during dysphagia management will need to be explored. Nevertheless, this practice highlights the innovative minds of OTs to support continuity of dysphagia management among their clients during the COVID-19 pandemic.

Video-assisted oral-pharyngeal exercises. Oral-pharyngeal musculature is necessary for swallowing. However, with the risk of COVID-19 infection and transmission, OTs are mandated to wear surgical masks all the time. This prevents the demonstration of facial and buccal exercises. OTs use video resources (e.g., self-produced, curated YouTube videos, Dynamed resources) to enable this intervention (Fig. 2). OTs had to look for either available resources on the internet, or in some cases, produced their video materials where the camera is focused on facial or buccal features while performing different exercises. In cases when face-to-face dysphagia management is permitted, these sessions were recorded by the client's caregiver. These videos were shared with the client and their families to practice the exercises at home.

Fig. 2. Sample of curated YouTube videos used for video-assisted oral-pharyngeal exercises (Source: UHN Patient Education. https://www.youtube.com/user/UHNPatientEducation).



Previous research recommended using video exercises to support dysphagia management, especially after discharge[18] even before the pandemic. Its utility and relevance have been more evident in the current times.[12,14] OTs must be guided by the best available evidence when

recommending video-assisted oral-pharyngeal exercises.

IMPACT TO PRACTICE

The effects of the COVID-19 pandemic on individuals' health and well-being are shaping how OTs respond to global health issues.[13] Local strategies to ensure the safe delivery of occupational therapy services are needed.7 The use of various forms of technology is evident in extending the continuity of occupational therapy services across contexts. These innovative strategies informed by evidence and local knowledge may eventually become the status quo in the "new normal." While the scientific community is continuously learning new things about COVID-19, standard precautions for infection control and the role of occupational participation in one's health and well-being remains. Therefore, there will be a need to synthesize practices from other hospitals and share these experiences at a national level to develop a uniform approach to the situation and reach an agreeable consensus. The practices in selected Philippine hospitals reported in this article may help in considering options to enable safe, effective, and relevant dysphagia management in the current time or even beyond.

The dysphagia management practices described in this article provide insight into how Filipino OTs responded to restrictions brought about by the COVID-19 pandemic on the delivery of occupational therapy services. While these practices enabled the continuation of dysphagia management for the Filipino clientele, it likewise presented approaches to modifying policies and processes for the safety and protection of OTs working in hospital-based settings. A key finding is the renewed focus on the importance of caregiver education as an adjunct strategy to ensure continuation of dysphagia management to support clients' participation in feeding occupations in their own contexts. This has implications on the timing of caregiver education that should be facilitated in parallel to direct dysphagia management so that families and caregivers are empowered and capacitated to continue intervention strategies in case of client discharge, whether planned or unplanned.

CONCLUSION

Dysphagia management continued to be an essential service among OTs. The effect of the global COVID-19 pandemic has shaped how occupational therapy services in Philippine hospitals were delivered safely and effectively. In order for occupational therapy dysphagia management to continue, Filipino OTs integrated infection control into their intervention session, used telehealth approaches, employed indirect service delivery through education and coaching, used acrylic barriers during face-to-face sessions, and provided exercise videos for clients and their caregivers to practice at home.

The effects of the COVID-19 pandemic are shaping the practice of occupational therapy in dysphagia management in the current time. Clinicians' expertise and client values may have differed, leading to context-specific dysphagia management practices. However, the response and strategies by Filipino OTs described in this report offer options to consider towards the development of best practices in dysphagia management in the time of the COVID-19 pandemic or even beyond.

Individual author's contributions

All authors contributed equally.

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Conflicts of interest

The authors are part of the editorial board of PJAHS.

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