Volume 19 Issues 3 & 4 (2024)

Bridging the Communication Chasm Between Deaf Patients and Masked Medical Professionals

Renuka Sundaram

Independent Scholar

Abstract

The coronavirus pandemic drastically changed communication for individuals who are deaf and hard-of-hearing in the healthcare setting. Patients' need for quality healthcare was impacted when masks obliterated the usual facial expressions and lipreading methods, creating a vast gap in essential communication between patients and healthcare professionals. This article explores the impact of the pandemic on communication and the search for new innovative and creative solutions to bridge the chasm.

Keywords: awareness, communication, deafness, healthcare, inclusivity, medicine

Bridging the Communication Chasm Between

Deaf Patients and Masked Medical Professionals

The coronavirus pandemic seems to have deepened the chasm in communication between masked healthcare professionals and individuals who are deaf or hard of hearing. In their attempts to curb its spread, medical professionals failed to take into account the profound impact of masks and alternative communication methods to ensure optimal healthcare for individuals who are deaf or hard-of-hearing. In this extended personal reflection, I share from my experience as a profoundly deaf individual, the impact of the pandemic on optimal access to healthcare and subsequent lack of equitable communication in a mandated masked environment.

Historically, masks have long been used to minimize spread of infection. Ancient Iranian medical practices created masks made of cloth soaked in vinegar, onion, and garlic to prevent spread of disease (Taghizadieh et al., 2021). During the Bombay fever, scarves and veils were worn in India. Cotton masks were recommended in the US during the late 1800s; wealthy women in Paris wore lace veils in the early 1900s. Today's N95 surgical masks focus on minimizing the transmission of infectious diseases, especially respiratory infections (Loeb et al., 2009). Even though many of these historical articles center around patient physical well-being, none focus on the impact of masks on patient' emotional and mental well-being or optimal access to communication.

Fast forward to present, growing research continues to expand on the negative impact of the pandemic on patient-masked medical professional communication. In one of those studies, Chodosh et al. (2020) stress that "communication between patient and clinician is the heart of medical care" (p. 1). Carstairs (2020) attests that masks "impede communication for frail elders and the hearing impaired" (p. 4). The pandemic has, since its onset, changed drastically the interactive, in-person communication as we once knew it. No longer do those of us who are deaf or hard of hearing have consistent access to the facial cues and lip movements essential to daily communication. Masks severely challenge those of us who depend heavily on our vision as compensation for our inability to hear (Gutierrez-Sigut et al., 2022).

Personal Reflection

Although I have lived with my deafness from birth, stepping into an unprecedented masked world quickly made communication quite daunting. In a matter of seconds after the mask mandate became a reality, I was plunged into a world of bewildering and terrifying isolation with no access to my usual communication of lip-reading and facial expressions. Throughout most of my life, I could be surrounded by a sea of people yet feel completely alone. Not just for people like me who are deaf and oral, masks worsen the communication barriers for patients from other marginalized groups. Some examples are elderly patients, patients who are hard-of-hearing or late-deafened, and even medical professionals with their own hearing loss. I have not even touched the vast realm of other disabilities where providing

medical care behind masked faces could be at least just as overwhelming.

My journey started when I was turned away from an orthopedic medical office. The receptionist informed me quite bluntly that the doctor would not wear a clear mask or write things down. At my regular physician's office, the office staff kept talking to me behind their masks, despite the innumerable times I asked them to write on paper. While checking in at a local lab for bloodwork, the lab clerk kept talking behind his mask no matter how many times I explained that my deafness prevented me from understanding him and my requesting that he please write things down. At the pharmacy, I was shooed from one person to another, four people in total, while trying to pick up some medications for my child. Despite a thick clear plastic wall and a good six-foot distance between all four pharmacy technicians and me, no one wanted to help. After one hour of waiting on the side and watching the long line behind me get served, I finally left and returned in the afternoon when the supervisor was available. The supervisor lowered her mask behind the safety of the thick plastic barrier and the 6-foot distance, allowing me to see her face. At my son's medical appointments, doctors and nurses would tell him to interpret. Not only was their request unfair to him as he was the patient and a minor, but clearly it was not his responsibility to be my interpreter. Most recently this year, I had my sensorineural deafness re-evaluated and tested by an ENT. Despite this physician's daily exposure to deaf patients, he and his medical staff would not wear a clear mask; the receptionist refused to write anything down on paper for me. The physician himself finally

relented to writing 1-2 word responses for every question I had. Under such debilitating circumstances, I did not receive the optimal care or an accurate audiological evaluation. In all these cases during the pandemic, I quickly became an object of unkind and impatient stares from these medical professionals; my deafness seemed to create an extreme inconvenience given the masked mandate and my inability to see lips so essential for my communication needs. Since the onslaught of the pandemic, every day became an experience fraught with constant communication challenges whenever I hesitantly ventured beyond the safe, sheltered sanctuary of my parents' home. I soon came to dread even stepping out, knowing the battles and hurdles that awaited me no matter where I went.

As a result, my own personal encounters have spurred me to turn my negative experiences into an opportunity for positive reflection with the purpose of creating awareness and solutions. We now exist in a time when everyone has had to rapidly and drastically discard old, taken-for-granted ways of thinking and doing and, instead, create new ways of interacting and communicating. For many of us heavily dependent on visual cues, such an action now requires thinking outside the box and creating innovative solutions to ensure the highest level of continued medical care for patients regardless of condition, disability, and circumstance. How can these patients get the much-needed care if physicians and other healthcare professionals are not willing to accommodate them? Filing a complaint with the American Medical Association (AMA) or even the Americans with Disabilities Act (ADA) may bring temporary attention, but will not create effective, long-lasting reprieve or solutions. People

who are deaf and hard-of-hearing can turn the experience of the pandemic into an opportunity to don creative hats and devise solutions that will bring inclusivity, equity, and advocacy, with the ultimate goal of providing further education, communication choices, and more inclusive awareness that masks severely exacerbated.

Quality of Communication and Healthcare Access

Well before the onset of the pandemic and the unprecedented mask mandate, the overall quality of communication between patients with hearing loss and medical professionals was already being explored; general research consensus appears to indicate that communication was already strained between healthcare personnel and patients who are deaf or hard of hearing (Iezzoni et al., 2004). In another study, patients with hearing loss reported significantly lower ratings of patient-physician communication and less quality of healthcare than patients with without hearing loss (Mick et al., 2014). The study concluded that patients with hearing loss "may have had greater difficulty understanding or engaging in discussions with their physicians" (Mick et al., 2014, p. 2). Hospital settings may not be providing necessary and effective communication strategies with patients who are deaf or hard of hearing (Bluestein et al., 2020).

Furthermore, Pratt (2018) attests that patients with profound hearing loss, prelingual hearing loss, adventitious hearing loss, and signing individuals in the Deaf community are often "reluctant to access healthcare due to potential communication breakdowns and the rapid pace of medical delivery" of information (p. 2). She further points out that medical

professionals might be unaware of the communication discrepancies due to poor understanding of patients' nonverbal communicative needs or patients not understanding the medical information being relayed. Deaf patients who sign tend to need interpreters; their ability to communicate may also be impacted by lack of (or the quality of) interpreting and captioning services (King, 2020). If the patient communicates primarily through American Sign Language and if English is not the patient's first language, then their ability to access and understand written health information may be compromised (Meador & Zazove, 2005). Finding skilled and certified interpreters who can accurately translate medical terminology may be difficult despite the Americans with Disabilities Act requiring such provision from medical offices (Pratt, 2018). Deaf patients may also not want signing family members or friends to assist, preferring to maintain confidentiality.

With the hasty closure of nearly all in-person contact with medical personnel during the pandemic, patients who are deaf or hard of hearing experienced exacerbated challenges in accessing healthcare and communicating effectively with their physicians. Patients who use oral skills also experienced challenges, since the lips and facial expressions, on which they heavily depend, were obliterated by the mask mandate. Martin (2020) shares that face masks are known to "adversely impact" aspects of communication, which "created unique challenges for the hearing-impaired community who may be put at a greater communication disadvantage" than those with typical hearing (p. 1). In an online presentation for the 2021 Pacific Rim International Conference for Disabilities and Diversity, many attendees shared that they simply avoided seeing

their physician due to coronavirus safety mandates, invasive masks, and lack of access to proper communication channels (Sundaram presentation, February 2021). Pandi et al. (2011) further state that hearing loss contributes to greater barriers to health care with long-term negative consequences. The study deduces that adults with hearing loss tend to "experience difficulties and delays in accessing health care as compared to those who are not hard-of-hearing" (p. 5).

Goldin et al. (2020) critically point out the impact of medical masks on speech reception and that the "cornerstone of patient safety and quality healthcare is effective communication" (p. 8). The authors stress that such "effective communication" allows the patient to fully participate in his/her healthcare; the communication must occur appropriately based on age, understanding, and communication abilities; and that the medical professional needs to provide clear, complete, and accurate information to the patient. How does the physician then ensure high levels of healthcare quality and communication access if the physician's face is obstructed by a facial mask and in the presence of a patient who cannot hear?

Not only do masks obstruct visual cues for patients dependent on lipreading, but the masks also prevent the acoustics of the physician's voice from traveling clearly through the filters of the mask to patients with usable residual hearing. According to data gathered in this study, speech quality severely deteriorated, given that the masks worn by physicians obstructed transmission of high frequencies critical for speech comprehension with patients using hearing aids, cochlear implants or other acoustic technology. Blustein et al. (2020) clearly stress the

urgent need to address this communication chasm with the fitting title of their paper, “Time to Take Hearing Loss Seriously.” They further stress that most hospitals and medical care settings still do not routinely employ practices to ensure clinician-patient communication, especially for those with hearing loss.

Even more critically, physicians and other healthcare professionals who have their own hearing loss understand only too well the challenges patients who are deaf or hard of hearing face. These physicians struggle to ensure that they continue to provide the highest level of patient care. How can they if they cannot communicate with the patient, if they cannot attend rounds, if they can no longer lip-read other masked physicians? Grote and Izagaren (2020), both deaf physicians, share their struggles and the lack of available transparent masks for use in healthcare settings. Crume (2020), a deaf pediatric resident, shares her loneliness, isolation, and tensions from having “no idea what was going on” (p. 1). The General Medical Council in the United Kingdom states that “communication ‘in a way patients can understand’ is vital for informed consent, patient care, and safety” (p. 1). However, how do facial masks meet that goal when “60-70% of communication is based on non-verbal cues from lip patterns and facial expressions?” (p. 1). Grote and Izagaren (2020) further emphasize that the negative impact of masks on patients and professionals who are deaf or hard of hearing has been substantial, increasing the risk of isolation and detrimental mental health consequences.

Based on my own personal experiences and evolving research, solutions are being created to address the communication barrier between masked medical professionals and

patients who are deaf or hard-of-hearing. Many agencies and organizations, particularly those that focus on individuals who are deaf or hard-of-hearing, offer detailed and very helpful resources. For example, the Hearing Loss Association of America shares a guide on strategies and tools for communicating with medical professionals during the pandemic (HLAA, 2020). Other associations, such as the National Association for the Deaf (NAD, 2020), Alexander Graham Bell Association (AGBell), Greater Los Angeles Agency on Deafness (GLAD), local and state chapters for deafness or hearing loss, DeafBlind organizations, etc., all have valuable resources as well.

Ask patients for a preferred mode of communication

Chodosh et al. (2020) stress the importance of awareness in understanding the differing needs of deaf and hard-of-hearing patients. Rather than making assumptions about a patient's level of comprehension and communication abilities, masked doctors can start by simply asking the patient for their preferred mode of communication (Fuller & Howell, 2020). Patients also have the responsibility of notifying the office in advance of their communication preferences and requesting additional time for the appointment if needed. For example, a deaf patient may request an oral interpreter or a signing interpreter; the extra time to relay information back and forth may necessitate a 40-minute appointment instead of a regular 15-20 minute consultation. More time should be allocated for appointments with any other conditions, such as elderly patients needing more time, health literacy, education limits, socioeconomic factors, drug impairments, cultural issues, cognitive functioning, and any

mental health disorders (Dr. R. Koshy, email communication, March 18, 2021). Dr. Koshy (2021) further stresses the importance of having more time with the patient and "asking clarifying questions" to ensure clarity and comprehension of communication between physician and patient, especially if the patient or the physician has a hearing loss.

Other patients with hearing loss may wish for simple solutions, such as the physician speaking more clearly or slowly, not talking while washing hands or pacing the room, maintaining eye contact, checking in with the patient if they have any questions, or providing visual documentation if the patient requests it. Most hearing people are used to talking to each other without looking at each other; for deaf patients, that lack of eye contact simply does not work. Raising one's voice tends to be counterproductive and may only increase the anxiety and stress of the patient and compromise the effectiveness of communication. Physicians can further reduce breakdowns and miscommunication by reducing environmental distractions, reviewing patient notes prior to the appointment, knowing the reason for the patient's visit and the current treatment plan, and checking in advance past methods of communication. They can review critical health information, such as asking clarifying questions or explaining medical terminology, with the patient to prevent potential miscommunication (Iezzoni, O'Day, Killeen, & Harker, 2004).

Clear Masks

Many options for clear masks and facial shields now exist on the internet and in most

stores. However, the clear masks are still being perfected. Ashley Lawrence, a student at a midwestern university, studying deaf and hard-of-hearing education, was one of the forerunners of the clear mask. This enterprising student wished for deaf people to have continued access to lip reading and facial cues while adhering to the guidelines set by the Center for Disease Control and Prevention (Coyne, 2020). With clear masks, the plastic tends to fog or gather moisture, as well as attracting unwanted reflection from overhead lights. Since the light is not able to filter through the plastic barrier, its reflection bounces off the surface of the mask. These unintended factors make visual cues for communication through lip-reading very difficult. Many do not yet have FDA approval.

The "Communicator Surgical Facemasks with a Clear Window" appears to be one of the better clear masks available currently. FDA-approved, these masks are single-use and disposable and can be worn in medical and other health settings with sufficient protection. More details and prices can be found on the website: The Communicator™ Surgical Face Masks with Clear Window (Level 1). The "Transparent Face Mask," also FDA-compatible, has adjustable straps, and offers a large clear facial shield. However, fogging, condensation, and light reflection issues exist. More information can be found at this website: ClearMask - The Fully Transparent Mask. The Bendshape Mask is also another option available at https://bendshapemask.com/. Many creative, enterprising individuals have created their own clear masks, which will only continue to improve with time. Some websites where these masks can be found include Etsy, Pinterest, Amazon,

etc. Medical professionals can also create their own clear, non-reflective, condensation-free medical masks, FDA-approved, to enhance communication with their patients who are deaf or hard of hearing.

Telehealth (virtual consultation)

When all medical appointments were closed to in-person visits, unless for emergencies, patients soon had the option for telecommunication through online platforms, such as Zoom, Skype, Google Meet, Microsoft Teams, and Facetime. Some of these platforms have automatic captions. Live captions are also another option through captioning providers. Behind the safety of a virtual screen, patients and healthcare professionals could discard their masks and remain safe. However, online platforms have their limitations. Poor internet connection made access to facial cues, lip-reading, and other visual cues tricky. At times, the person's mouth and face would freeze into comical expressions, or essential signs from interpreters or the patient would abruptly halt in mid-air, cutting off critical communication access. Acoustics for patients who are hard of hearing could become distorted or muffled. Furthermore, physicians could not physically examine a patient; subsequently, they had to rely on patients' description of their symptoms and read past medical notes. Many patients were either not familiar with online platforms or wary of discussing their personal health issues via a relay operator or an interpreter. In addition, many patients did not have access to technology or lived in rural communities where the internet access was spotty, scarce or non-existent.

Written and Electronic Communication

With the 2000 HIPAA Privacy Rule, the 2009 HITECH Act, and the 2021 Cures Act, the U.S. Department of Health and Human Services Office for Civil Rights and the Office of the National Coordinator for Health Information Technology have provided patients with the opportunity to access their medical records. The most recent CURES Act, passed on April 5, 2021, provides the opportunity to improve communication, to provide post-discharge follow up, to access medical information critical for one's health, and, most of all, to strengthen patient-medical professional relationships (Morgan & Moriarty, 2016). According to Dr. Koshy (2021), if patients have access to their healthcare information, it "decreases the chance that information won't be seen or heard." Patients have always had that right to request written copies; they now have electronic access as well through safe and secure portals. More medical offices are creating these portals, although many others remain reluctant to flow with changing times. Patients, especially those who are deaf or hard of hearing, can also be proactive in accessing their records to help maximize their communications with masked healthcare professionals.

Voice-to-text applications

Numerous speech-to-text applications have been created. Otter Ai is one example of speech-to-text translation developed in California. The software provides captions for live speakers and generates transcription of the voice into written text (www.otter.ai). Other

applications are readily available, such as Google Assistant, Deepgram, Dragon Anywhere, Transcribe, Speechnotes, Notes, Speech Texter, and iTranslate Converse. Some of these dictation applications are free while others have a trial period or require subscriptions. Providing captions in person and through online platforms continues to be an evolving process.

Voice-to-sign and text-to-sign applications

In addition to voice-to-text applications, applications for translating voice and text into American Sign Language and other sign languages also exist. Hand Talk and Mimix3D are among some versions found on smartphones. Apple has its version, ASL Translator. Python, recently developed by organizations in India, converts speech to Indian Sign Language. The authors hope to improve the software by incorporating facial expressions along with the signs (Harkude et al., 2020).

Voice Enhancement Technology

For patients who are hard of hearing or who benefit from acoustic technology, voice enhancement technologies can help the doctor's voice travel better through mask filters. Some examples are Alango, BeHear ACCESS, BeHear NOW, or Williams Sound Pocket Talker. Smartphones and Apple phones have their own enhancement applications, such as Jacoti Listen App (Goldin et al., 2020). All these technologies can help the listener optimize any residual hearing used for listening and communicating. Other organizations, such as Diglo (formerly Harris Communications), Hearing Loss of America, National Association for the Deaf, AARP,

and ADCO Hearing Products all offer resources for clientele who are deaf or hard-of-hearing.

Translation

Languageline interpreting provides translation for at least 360 languages including sign language. Video, telephone, and in-person interpretation are offered depending on the client's needs. An on-demand phone and video services allow a client or an office, such as the doctor's office, to pre-schedule an interpreter for a certain time and location. Accounts vary such as pay-as-you-go or contracted ones. The Americans with Disabilities Act mandates that medical settings provide an interpreter based on the patient's needs. Other tools involve communication boards, voice to text relay services, signing relay services, and mobile apps (McGee, Moran, & Zazove, 2020).

Writing on Paper

This eternal time-tested method remains one of the oldest ways of communication through writing on paper, yellow pads, whiteboards, etc., if clear and visual-verbal communication is not possible. However, there may be some patients who may not be able to read written English. For those who know American Sign Language, this visual language does not follow the English syntax and grammatical structure (Holcomb, 2013). Other sign languages, including British Sign Language, may also not be similar to the written structure of their country's respective language(s). Grote and Izagaren (2020) indicate that if British Sign Language is a person's first language, then written notes may not always be the most effective.

The authors recommend trying clear signs, pictures, and other resources such as Cardmedic-digital communication flashcards. Other options are texting applications, such as through NOTES, WhatsApp, Messaging, etc., on iPhones and smartphones. Even more critical, how many physicians can accurately write word-for-word a spoken conversation? During my recent encounter with my ENT over an audiological evaluation, his abrupt, cursory 1-2 word written responses did not even begin to create any communication channel to ensure I was getting proper audiological care. How many interpreters can transmit medical jargon accurately to a patient heavily dependent on third party communication? At best, writing is better than no solution at all, but difficult to convey a full, true and accurate depiction of a verbal medical exchange between doctor and patient, crucial for the patient's optimal health.

Training for medical professionals and medical schools

Medical professionals and medical students could benefit from enhanced exposure to cultural and linguistic training for all healthcare professionals who work with patients who are from the Deaf community, and other minority groups. According to Pratt, (2018), "lack of awareness of their hearing loss and limited access and treatment options can further interfere with getting appropriate services" (p. 432). For example, learning American Sign Language as a second language to be able to communicate with deaf patients who sign, would be one option for medical professionals to consider. An American Sign Language Medical Dictionary exists which both signing patients and medical professionals can have on hand for medical office or hospital visits. For deaf patients who do not sign, who may be hard-of-hearing or late-deafened,

who speak, lip-read, and depend on facial cues, medical professionals can explore alternative communication strategies for those patients by asking them for their preferred choice of communication. However, it is also the patient's responsibility to check with their medical professional ahead of time to ensure their communication needs are met and honored.

Pratt (2018) further indicates that deaf people have different social and communication criteria that naturally differ from those of hearing people. Most people who are deaf or hard of hearing may come across as different, simply because they are desperately trying to communicate their needs but are not being "heard." Many hearing people themselves can also be perceived in similar ways in how they come across to their patients or other people. Hearing physicians and other medical professionals may also contribute to the communication breakdown since they may lack that necessary understanding or tolerance of the differing communication styles of patients who are deaf, hard-of-hearing, late-deafened, or identify with the Deaf community (Mick, Foley, & Lin, 2014). It is all a matter of the perspective from where the person is coming. Fuller and Howell (2020) suggest multiple tools medical professionals can add to their communication repertoire to re-instill trust and repair the patient-clinician relationship.

Most hearing people seem to take for granted their ability to communicate. They can easily chat with each other without any eye contact. For a person who cannot hear or who depends heavily on visual communication, not establishing eye contact is considered a huge deterrent to effective communication, mask or no mask. Hearing professionals tend to talk over a person who is deaf or hard-of-hearing by talking, instead, to any hearing person that might

have accompanied the person with the hearing loss. Deaf people are used to touching each other to get their attention; touching a hearing medical professional to get his/her attention may be natural to a person who is deaf or hard-of-hearing, but the hearing professional may not view it that way. With users of American Sign Language, facial expression is critical in understanding the meaning of signs. One sign can have multiple meanings, just like English words. However, the person who is deaf or hard-of-hearing may rely heavily on facial expressions and context to make sense of the signs. American Sign Language does not follow English grammatical structure, making reading and writing comprehension difficult for people whose first language may not be English. Imagine how much worse the entire communication process has become for the patient who is deaf or hard-of-hearing dealing with a masked face obliterating all access to lip-reading and facial cues (Goldin et al., 2020).

Recommendations for Further Research

Given that masks will remain in our lives for a long time to come, increased proactivism on both the part of patients who are deaf or hard-of-hearing and medical professionals is needed to bridge the communication chasm. Fuller and Howell (2020) stress that "communication is at the core of the patient-physician relationship (p. 1). Conducting further research on divergent communication methods within populations who are deaf or hard-of-hearing would be a starting foundation on which to expand communication options. Iezzoni et al. (2004) share six themes in their research: conflicting views between physicians and patients about being deaf or hard of hearing, differing perceptions of what defines effective communication (lip-reading,

writing notes, sign language interpretation, etc.), medication safety and other risks from inadequate communication, communication problems during physical examinations and procedures, difficulties in interacting with office staff (in office, waiting room, etc.), and problematic telephone communication.

To gather more accurate and comprehensive data of the communication between patients who are deaf or hard-of-hearing and masked medical professionals, further research should include these six themes. In-person interviews can be facilitated with physicians and patients on how masks impact communication and subsequently quality of healthcare for patients. Interviews can be facilitated in the patient's preferred mode of communication (Iezzoni et al., 2004). Mick et al. (2014) mention using the Consumer Assessment of Healthcare Providers and Systems (CAHPS) to rate patient-physician communication. Possibly, this research tool could be used to assess communication between patients who are deaf or hard-of-hearing and masked medical professionals during the pandemic. A pre-post test study could be done assessing communication and quality of healthcare before solutions are implemented and then testing the efficacy of the solutions afterward. Research could also include the differing communication abilities of patients with hearing loss or who are deaf across borders of other health conditions and medications, age, language, ethnicity, socio-economic status, and geographic location to broaden understanding of factors that create those gaps (Ries, 1994).

Exposing medical professionals to Deaf culture, communication styles of patients who

are deaf or hard-of-hearing, as well as providing viable communication options would greatly improve communication access and increase optimal quality of health care. Late-deafened patients and a longer-living geriatric population come with their own degree of hearing loss. Their perspectives are valuable. Hearing physicians and other medical professionals can also learn from their own medical colleagues who are deaf or hard of hearing. As Crume (2020) pointed out, her colleagues were highly receptive to implementing changes to improving communication and increasing her access to information. However, Crume (2020) was proactive in implementing those much needed accommodations. Having more physicians who are deaf or hard of hearing would be a valuable asset to the healthcare community. Other health professionals (such as counselors, audiologists or nurses) who are also deaf or hard of hearing could make a huge contribution among the healthcare community in ensuring equitable communication and access.

Additionally, curriculum in medical schools on diversity, inclusion, and advocacy should be assessed. Courses could involve awareness and education on alternative communication tools such as taking sign language courses. Are medical students receiving the necessary training to be able to communicate in alternative ways with patients who are deaf and hard of hearing? What about medical residencies or internships with the Deaf community? Medical schools and organizations that offer continuing medical education could have guest speakers who are deaf or hard of hearing speak to the audience about effective communication strategies. Are physicians also getting such education and awareness through continuing medical education credits? Pratt

(2018) mentions the importance of professional training, counseling, community outreach, and multidisciplinary activities to help remove barriers between patients with hearing loss and healthcare professionals.

Conclusion

Even to this day, my journey continues to focus on educating healthcare professionals on equitable communication to ensure optimal healthcare for their patients. I also seek to empower patients who are deaf or hard-of-hearing to learn their options and self-advocate. Healthcare settings are, for the most part, receptive and willing to improvise. The medical office that canceled my orthopedic appointment was startled when I still showed up and insisted on speaking with the doctor in person. Once the doctor saw me and realized my deafness was not so intimidating, he became quite open to the solutions I had brought: Notes app on my iPhone, a box of transparent face masks, and an old-fashioned pad of paper. By realizing he could communicate through the microphone on the Notes app, he was able to then use the voice-to-text feature without having to lower his mask.

Another doctor was quite willing to accommodate me by standing at the entrance of the room and lowering her mask while I sat at the furthest corner at the opposite end of the room and lip-read her. However, not everyone can lip-read tiny lips from such a far distance. Another doctor accepted the box of packaged clear transparent face masks I had brought and passed them out to her staff at the office for future use. She also was not aware of the Notes option until I demonstrated how to use the app. My son's medical doctor switched to video

telecommunication through Zoom. The doctor did not need to wear a mask; I was able to lipread the conversation, and my son got the critical care he needed. The doctor also connected me with an electronic portal where I could easily access medical notes and communicate with him and the nurses. I was so grateful for the efforts made on our behalf.

Most physicians and other medical professionals tend to have the patient's highest well-being in mind; the communication breakdowns can be addressed if both the masked physician and the patient are willing to work together and create solutions to bridge the communication chasm. Maru et al. (2021) summarized communication beautifully: "Communication is more than just spoken language." The authors add, "good communication techniques and awareness encourages inclusivity which can address the isolation and marginalization of people with hearing loss," with the goal of rebuilding patient satisfaction, trust, and optimal communication (p. 1). McKee et al. (2020) remind us that patients who are deaf and hard-of-hearing already faced communication struggles pre-COVID; this is all the more reason to not forget that "effective clinician-patient communication" continues to serve as the cornerstone for optimal patient care and satisfaction (p. 4).

Our journey in this masked world-for those of us who are deaf, hard of hearing, or other disabilities-continues every day, everywhere. The communication chasm exists not just within the medical setting, but also in one's own home when a masked plumber comes by to fix a leak, in the coffee shop trying to order a hot beverage with a masked employee, in the

post office being shooed away by a masked postal clerk who refuses to write things down, or in the grocery store searching for a seasonal item but not being able to ask masked faces for help.

Ample opportunity exists in such times of adversity. We can use these experiences to pave the way for change, to address and acknowledge the unique communication abilities of people who are deaf or hard of hearing, and for physicians to continue to provide the highest level of safe and ethical medical care. Like anyone else, patients who are deaf or hard of hearing (or have other disabilities) deserve to be treated with compassion, dignity, and, ultimately, feel that they were heard and listened to regarding their medical needs. All we ask for is some understanding, compassion, and decency as we, the deaf and hard-of-hearing, navigate added adversity in uncharted masked waters. As Dr. Gutierrez-Sigut (2022) shares, "We are so thankful deaf and hard of hearing shared their experiences and we hope we can make their voices seen and heard" (p. 2).

References

Blustein, J., Wallhagen, M., Weinstein, B., & Chodosh, J. (2020). Time to take hearing loss seriously. *The Joint Commission Journal on Quality and Patient Safety*, *46*(1), 53-58. https://doi.org/10.1016/j.jcjq.2019.10.003

Carstairs, C. (2020). *A brief history of masks from the 17th-century plague to the ongoing coronavirus pandemic*. The Conversation, 1-5. https://theconversation.com/a-brief-history-of-masks-from-the-17th-century-plague-to-the-ongoing-coronavirus-pandemic-142959

Chodosh, J., Weinstein, B., & Blustein, J. (2020). Face masks can be devastating for people with hearing loss. *BMJ*, *370*, 1-2. https://www.bmj.com/content/370/bmj.m2683

Coyne, M. (2020). *This see-through mask lets the deaf communicate while staying safe.* Forbes. https://www.forbes.com/sites/marleycoyne/2020/04/04/this-see-through-mask-lets-the-deaf-communicate-while-staying-safe/?sh=181cc5705257

Crume, B. (2020). The silence behind the mask: My journey as a deaf pediatric resident amid a pandemic. *Academic Pediatrics, 21*(1), 1-2. https://doi.org/10.1016/j.acap.2020.10.002

Fuller, G., & Howell, M. (2020). Can you hear me now? Communicating across the COVID-19 PPE chasm. *Texas Medical Association,* 1-5. https://www.texmed.org/TexasMedicineDetail.aspx?id=54301

Goldin, A., Weinstein, B., & Shiman, N. (2020). How do medical masks degrade speech

reception? *The Hearing Review*, *27*(5), 8-9. https://hearingreview.com/hearing-loss/health-wellness/how-do-medical-masks-degrade-speech-reception

Grote, T., & Izagaren, F. (2020). Covid-19: The communication needs of D/deaf healthcare workers and patients are being forgotten. *BMJ*, *369*, 1-2. https://doi.org/10.1136/bmj.m2372

Gutierrez-Sigut, E., Lamarche, V. M., Rowley, K., Ferreiro Lago, E., Pardo-Guijarro, M. J., Saenz, I., Frigola, B., Frigola, S., Aliaga, D., & Goldberg, L. (2022). How do face masks impact communication amongst deaf/HoH people? *Cognitive Research: Principles and Implications*, *7(81),* 1-23. https://cognitiveresearchjournal.springeropen.com/articles/10.1186/s41235-022-00431-4

Harkude, A., Namade, S., Patil, S., & Morey, A. (2020). Audio to sign language translation for deaf people. *International Journal of Engineering and Innovative Technology, 9*(10), 30-34. https://www.ijeit.com/Vol%209/Issue%2010/IJEIT1412202004_05.pdf

Hearing Loss Association of America. (2020). *How do I communicate with doctors, nurses, and staff at the hospital during COVID-19?* https://www.hearingloss.org/communication-access-recommendations-hospitals-covid-19

Holcomb, T. K. (2012). Introduction to American Deaf Culture. Oxford University Press.

Iezzoni, L. I., & O'Day, B. L., Killeen, M., & Harker, H. (2004). Communicating about health care: Observations from persons who are deaf or hard of hearing. *Annals of Internal Medicine, 140*(5), 356-362. https://doi.org/10.7326/0003-4819-140-5-200403020-00011

King, N. (2020). Building a bridge between the deaf community and art therapy. *Art Therapy: Journal of the American Art Therapy Association, 37*(2), pp. 97-98. https://doi.org/10.1080/07421656.2020.1757393

Loeb, M., Dafoe, N., Mahony, J., John, M., Sarabia, A., Glavin, V., Webby, R., Smieja, M., Earn, D. J. D, Chong, S., Webb, A., & Walter, S.D. (2009). Surgical mask vs N95 respirator for preventing influenza among health care workers: A randomized trial. *JAMA, 302*(17), 1865-71. http://doi.org/10.1001/jama.2009.1466

Medanta Medical Team (2020). *History and evolution of mask*. https://www.medanta.org/patient-education-blog/history-and-evolution-of-mask/

Martin, L. (2020). The acoustic challenges posed by face coverings for people with hearing loss. *The Hearing Review, 27*(10), 28-29. https://hearingreview.com/hearing-products/accessories/infection-control/nal-update-impact-of-face-masks-and-face-shields-on-communication

Maru, D., Stancel-Lewis, J., Easton, G., & Leverton, W. EJ. (2021). Communicating with people with hearing loss: COVID-19 and beyond. *BJGP Open,* 1-3.

https://bjgpopen.org/content/5/1/BJGPO.2020.0174

McKee, M., Moran, C., & Zazove, P. (2020). Overcoming additional barriers to care for deaf and hard-of-hearing patients during COVID-19. *JAMA Otolaryngology Head Neck Surgery, 146*(9), 781-782. https://jamanetwork.com/journals/jamaotolaryngology/fullarticle/2768217

Meador, H. E., & Zazove, P. (2005). Health care interactions with deaf culture. *JABFP, 18*(3), 218-222. https://doi.org/10.3122/jabfm.18.3.218

Mick, P., Foley, D.M., & Lin, F.R. (2014). Hearing loss is associated with poorer ratings of patient-physician communication and healthcare quality. *Journal of American Geriatric Society*, *62*(11), 2207-2209. https://doi.org/10.1111/jgs.13113

Morgan, S., & Moriarty, L. (2016). 21st century Cures Act & the HIPAA access right: Empowering patients by improving patient access to electronic health information (EHI). https://www.healthit.gov/sites/default/files/2018-12/LeveragingHITtoPromotePatientAccess2.pdf

National Association for the Deaf. (2020). COVID-19: Deaf and hard of earing communication access recommendations for the hospital. https://www.nad.org/covid19-communication-access-recs-for-hospital/

Pandhi, N., Schumacher, J. R., Barnett, S., & Smith, M.A. (2011). Hearing loss and older adults' perceptions of access to care. *Journal of Community Health*; *36*(5), 748-755. https://doi.org/10.1007/s10900-011-9369-3

Pratt, S.R. (2018). Profound hearing loss: Addressing barriers to hearing healthcare. *Seminars in Hearing, 39*(4), 428-436. https://pubmed.ncbi.nlm.nih.gov/30374213/

Ries, P. W. (1994). Prevalence and characteristics of persons with hearing trouble: United States, 1990-91. National Center for Health Statistics. *Vital Health Statistics,10*(188), 1-17. https://pubmed.ncbi.nlm.nih.gov/8165784/

Taghizadieh, A., Ghazi-Sha'rbaf, J., Mohammadinasab, R., & Safiri, S. (2021). The first use of face mask in the history of medicine. *Infection Control & Hospital Epidemiology, 43*(7), 961-962. https://www.cambridge.org/core/services/aop-cambridge-core/content/view/92F90EF6C8350ACAC5B31FE64000DF7E/S0899823X21001574a.pdf/the-first-use-of-face-mask-in- the-history-of-medicine.pdf

Bridging the Communication Chasm Between Deaf Patients and Masked Medical Professionals by Renuka Sundaram https://rdsjournal.org/index.php/journal/article/view/1054 is licensed under a Creative Commons Attribution 4.0 International License. Based on a work at https://rdsjournal.org.