



Facemasks and Deaf People: A Reflection on the Problems of the Silent People during the COVID-19 Pandemic

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Dear Editor-in-Chief,

The spread of COVID-19 has significantly impacted personal and social life, introducing issues like mask mandates and social distancing that were previously non-existent. The use of face masks surged during the pandemic, as global experts recommended them to mitigate virus transmission. However, deaf individuals and those with hearing loss have faced communication challenges due to the inability to read lips, leading to increased isolation, anxiety, and a reduced quality of life.

While surgical masks help reduce the spread of larger respiratory droplets, they do not fully prevent the transmission of smaller particles like the coronavirus. Therefore, it is crucial for legislative bodies to consider the needs of all individuals, especially those with disabilities, when enacting laws during crises. Including representatives from the deaf community in decision-making processes can help advocate for their rights. Additionally, transparent face masks and enhanced virtual health services can provide essential support for deaf individuals during the pandemic.

Key Words: Challenges, COVID-19, Deaf people, Facemasks.

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Coronavirus disease 2019 (COVID-19) is a contagious illness caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The first known case was identified in Wuhan, China, in December 2019, and the disease quickly spread worldwide, resulting in the COVID-19 pandemic. COVID-19 is primarily transmitted when people inhale air contaminated by droplets, aerosols, and small airborne particles containing the virus. Infected individuals release these particles when they exhale, talk, cough, sneeze, or sing. The risk of transmission increases with physical proximity; however, infection can occur over longer distances, particularly indoors (1-8).

The WHO (World Health Organization) and the US CDC (Centers for Disease Control and Prevention) recommend that individuals wear non-medical face coverings in public settings where there is an increased risk of transmission and where social distancing measures are difficult to maintain. This recommendation aims to reduce the spread of the disease by asymptomatic and pre-symptomatic individuals and complements established preventive measures such as social distancing (9-11). People with physical disabilities face numerous challenges under normal conditions, and the COVID-19 pandemic has exacerbated these issues for deaf individuals, who typically rely on facial expressions and lip reading for communication. Sign languages depend heavily on visual cues and movements; thus, when using sign language, the movement of lips is also necessary to convey meaning. However, face masks hinder a deaf person's ability to understand the speaker. While wearing a mask is a protective measure against contracting and transmitting the coronavirus, it complicates communication for the deaf community. The use of face masks to prevent the spread of the coronavirus remains a controversial issue. Notably, the World Health Organization does not recommend mask usage in all settings (12, 13). According to a WHO declaration in 2020, more than 5% of the global population (432 million adults and 34 million children) were deaf or hard of hearing (14). Deafness has varying definitions in cultural and medical contexts. In medical terms, deafness refers to hearing loss that prevents an individual from understanding spoken language and constitutes an audiological condition. In this context, deafness is defined as a degree of hearing difference such that a person cannot comprehend speech, even with amplification (15, 16).

Hearing loss can lead to various communication challenges, potentially resulting in isolation, depression, anxiety, an increased risk of dementia, and a reduced quality of life. Studies have shown that individuals with hearing loss often experience heightened feelings of loneliness and social isolation due to these communication barriers (17). An unintended consequence of widespread mask use during the COVID-19 pandemic is the additional social isolation experienced by deaf and hard-of-hearing individuals, impacting a significant portion of every society. Research indicates that masks hinder lip-reading and facial expressions, which are crucial for effective communication, particularly for those who are deaf or hard of hearing (18).

These challenges are amplified when deaf individuals are hospitalized, as medical staff often wear more extensive protective equipment and may not be familiar with sign language. In particular, masks make lip-reading impossible for deaf patients, complicating their ability to communicate effectively with healthcare providers. The barriers created by masks can significantly impede verbal communication in noisy environments like hospitals, further exacerbating the difficulties faced by individuals with hearing loss (19, 20).

Most deaf individuals and those with hearing loss use sign language as their primary mode of communication. While some may also use spoken language, they often face difficulties due to limited fluency and the challenges imposed by environmental conditions such as background noise, physical distance, and especially the inability to read lips when masks are worn. The COVID-19 pandemic has further intensified these barriers, as wearing face masks and maintaining physical distance have become necessary public health measures (21–24). Deaf individuals and those with hearing loss living during this period have faced specific challenges, including:

- Masks reduce the clarity and loudness of sounds.
- Cloth and surgical masks diminish speech volume by approximately five decibels.

- When wearing a mask, sounds are not only reduced but also muffled.
- Research indicates that using an N95 mask can decrease sound loudness by up to 12 decibels.
- Social distancing and protective barriers further exacerbate these communication difficulties (14, 23).

The following suggestions may help counter these challenges:

- **Promote preventive methods:** Evidence shows that while surgical masks can prevent the spread of larger respiratory particles from infected individuals to others, they do not block smaller particles, such as the coronavirus (12, 13). Given this issue, it is essential to provide extensive information through mass and social media—such as television, newspapers, and social networks—about ways to prevent the spread of the coronavirus (e.g., vaccination, proper ventilation by opening windows, handwashing, and using a tissue when sneezing) in language that everyone can understand.
- **Avoid speaking while moving:** Ensure that conversations occur while stationary to enhance clarity.
- **Maintain eye contact:** Look directly at the person and establish good eye contact while communicating.
- **Minimize background noise:** Try to reduce background noise or move to a quieter area if possible.
- **Ensure hearing aids are available:** If the person uses a hearing aid or listening device, make sure it is available and in use.
- **Speak clearly and at a moderate pace:** Talk clearly and slightly slower than usual, but avoid shouting.
- **Consider written communication:** The person may prefer to communicate by writing. This may take a little longer; be patient and respond in writing.
- **Be responsive in conversation:** Support understanding by using gestures, body language, and facial expressions to convey information, but avoid being overly dramatic. Remember to nod instead of saying "Hmmm."
- **Refer to visual aids:** Use visual information such as drawings, diagrams, or photographs during conversations.
- **Be prepared to repeat or rephrase information:** If necessary, be ready to repeat or rephrase what you have said.
- **Utilize remote working/studying tools:** Engage in e-learning and social networks for work or study from home.
- **Stay connected with others:** COVID-19 has forced many to rely on video-call technology instead of face-to-face meetings. This type of communication presents unique challenges for deaf and hard-of-hearing individuals. The video conferencing platform Zoom has seen a significant increase in users since the COVID-19 outbreak. For people with hearing loss, Zoom offers useful accessibility features like closed captioning (subtitles) and automatic transcripts.
- **Wear accessible face masks:** Utilize masks designed for better visibility of lips or those with transparent sections.
- **Learn new skills online:** Pursue online learning opportunities for improved communication and education.
- **Prioritize mental health:** Many deaf individuals are already familiar with feelings of isolation due to societal stigma, prejudice, and communication challenges. During the COVID-19 pandemic,

they experience similar mental health concerns as their hearing peers and seek out the same services to address these issues. However, unlike hearing individuals, deaf people do not always find equitable access to mental health services.

- **Utilize captioning resources for live streaming or video calls:** Ensure that live streams and video conferences include captioning options.
- **Use captioned phone services:** If there is an option for individuals with normal hearing to dial a phone number (e.g., for homework assignments or conference calls), there should also be an accessible option for students or employees who are deaf or hard of hearing.
- **Include representatives of the deaf community in decision-making meetings:** Invite representatives of deaf individuals to participate in decision-making meetings to reflect their opinions and address the challenges faced by this group in society (12-16, 23, 25-27).

Conclusion

Addressing the communication challenges faced by deaf and hard-of-hearing individuals, especially during the COVID-19 pandemic, is essential for fostering inclusivity and improving their quality of life. Practical strategies such as promoting preventive methods, leveraging technology, ensuring effective communication, and prioritizing mental health can help mitigate these barriers. Additionally, involving representatives of the deaf community in decision-making ensures their voices are heard. By implementing these measures, society can reduce isolation and create a more inclusive environment for all.

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