

# Mental Health of Persons with Aphasia during the COVID-19 Pandemic: Challenges and Opportunities for Addressing Emotional Distress

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## Abstract

Aphasia refers to the acquired language deficits, most commonly caused by a stroke, that affect one's verbal understanding, oral expression, reading, and writing. Approximately 31% of stroke survivors exhibit depression or some depressive symptoms that can impede functional recovery. Since the onset of the COVID-19 pandemic in March 2020, many reports have discussed its psychological and mental impacts on different people worldwide, including both unimpaired individuals and those with chronic illnesses or medical conditions. At present, relatively little has been published on the topic of mental health changes, distress, and/or concerns among persons with aphasia (PWA). Nevertheless, the current evidence reported thus far suggested that PWA had equally suffered from emotional symptoms as a result of the coronavirus outbreak, similar to other disorder populations. With reference to recent reports, the challenges posed to management of aphasia are summarized. Some potential opportunities to address PWA's needs, with an emphasis on their emotional distress, amid and after the pandemic are proposed and discussed.

## Keywords

COVID-19, Aphasia, Mental Health, Emotional Distress, Well-Being

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## 1. Aphasia

One of the common sequelae of stroke is acquired language deficits, or aphasia. It is a disorder of language functions that negatively and selectively impacts on a person's understanding, speaking, reading, and writing (Worrall et al., 2016), with symptoms manifesting across various levels of performance such as word,

phrase, sentence, and discourse processing (Kong, 2016). Aphasia is present in approximately 40% of first-time stroke survivors and can still be found in up to 60% of survivors in the chronic stage one year post-onset (Engelter et al., 2006). It has also been reported that about 31% of stroke survivors exhibit depression or depressive symptoms that can impede functional recovery (Hackett & Pickles, 2014). Other common etiologies of aphasia include dementia, traumatic brain injury, and brain tumors.

## 2. COVID-19 and Its Psychological Impacts

COVID-19 was declared a pandemic on March 11, 2020 (World Health Organization, 2020). At the time this paper was prepared, the world has battled COVID-19 for over 15 months. Many reports have revealed its psychological and mental impacts on different people, including the general elderly population (e.g., Grolli et al., 2021; Meng et al., 2020), children and adolescents (e.g., Saubh & Ranjan, 2020), pregnant women (e.g., Rasmussen et al., 2020), teachers (e.g., Stachteas & Stachteas, 2020), and healthcare workers (e.g., Luo et al., 2020; Tan et al., 2020). Similar studies focusing on specific vulnerable populations have also emerged, such as individuals with dementia (e.g., Keng et al., 2020), Parkinson's disease (e.g., van der Heide et al., 2020), cancer (e.g., Ng et al., 2020), intellectual and developmental disabilities (e.g., Navas et al., 2021), autism spectrum disorders (e.g., Colizzi et al., 2020), neurodevelopmental disorders (e.g., Summers et al., 2021), and caregivers (e.g., Altieri & Santangelo, 2021; Ng et al., 2020).

These investigations have commonly reported a wide array of psychological consequences provoked by the pandemic—fear, anxiety, depression, stress, indignation, boredom, and helplessness. There were a range of sources that had contributed to these negative feelings, such as prolonged home-stay, concerns for family members and friends, existing health conditions, worry about health and loved ones, quarantine and lockdown measures, disruption of daily life and normal routine, reduction of leisure and social activities, and discrimination. Risk factors that might worsen existing poor psychological well-being included lower socioeconomic status, contraction of COVID-19, lack of up-to-date and accurate COVID-related information, social isolation, reduced peer and family support, and social stigma.

## 3. Effects of COVID-19 on Persons with Aphasia

At present, relatively little has been published on the topic of mental health changes, distress, and/or concerns among persons with aphasia (PWA). Regular social engagement as well as meaningful relationships and activities are important to promote and maintain positive psychosocial well-being in PWA (Bronken et al., 2012). However, the evolving regulatory measures on social distancing in response to the COVID-19 pandemic have broadly disrupted and limited these opportunities. Adoption of new activities or schedules may be needed in some PWA. More critically, the ongoing societal disruptions since its rapid onset more than a year

ago have posed a huge challenge to conventional face-to-face, facility-based management of aphasia (e.g., speech and language therapy assessment and training sessions, community support group meetings and gatherings) and to PWA's community activities (e.g., leisure peer interactions, recreation and sport activities); these could subsequently lead to difficulties in ensuring a good mood, psychosocial well-being, and quality of life in PWA (Lee, Lee, Choi, & Pyun, 2015).

One of the very few reports was a recent retrospective interview-based study that investigated how the psychosocial difficulties experienced by Italian PWA have worsened due to COVID-19 (Pisano et al., 2020). A group of 73 chronic PWA previously discharged from rehabilitation services before the COVID-19 emergency were interviewed twice, one month before and one month after the COVID lockdown. With reference to the results of the hospital anxiety and depression scale (Rishi et al., 2017), the PWA demonstrated a significantly higher level of depression and anxiety at the second interview. There was also a significant deterioration in their self-rated quality of life, as reflected by the results of the stroke and aphasia quality of life scale (Hilari et al., 2003). What needs to be highlighted was that the observed negative changes did not vary as a function of factors such as PWA's aphasia severity (mild, moderate, and severe), age, education, or gender, possibly indicating that COVID-19 had equally affected various subgroups of PWA.

Similar findings have been reported by another comparable investigation focusing on chronic PWA residing in Hong Kong (Kong et al., 2020). Specifically, a survey study was conducted to determine whether and how social distancing measures implemented to mitigate COVID spread have impacted PWA's mental health and psychosocial well-being. The adapted scales of psychological well-being (SPWB; Ryff, 1989) was implemented to reflect six dimensions of PWA's mental functioning, including 1) autonomy, 2) purpose in life, 3) environmental mastery, 4) personal growth, 5) positive relations with others, and 6) self-acceptance. Preliminary results based on 15 PWA suggested more distress in the first two dimensions of SPWB in PWA, on top of their higher degree of induced anxiety, depression, and stress than 7 control participants.

In summary, COVID-19 had an elevated risk for exacerbating social isolation and associated negative psychological symptoms in PWA, who inherently are dealing with pre-existing struggles of communication, social, cognitive, and/or intellectual disabilities. As concluded by a recent review article (Kong, 2021), there are still significant knowledge gaps about the short- and long-term impacts of COVID-19 on PWA; this warrants special attention given by different stakeholders to adequately address the psychosocial and rehabilitation needs of PWA during and after the COVID-19 era.

#### **4. Challenges and Opportunities for Addressing Emotional Distress in Aphasia**

With no doubt, the COVID-19 pandemic has led to dramatic and unprecedented-

ed changes to many people's life globally. Not only did it pose a threat to public health, but also to how care can be adequately provided when addressing patient needs. The post-COVID-19 era will become different from the world we have known. Thus far, the majority of the literature has discussed how previous and existing social distancing measures have affected PWA in a negative way. However, one must also not neglect the potential disparate opportunities that have created new initiatives for managing aphasia.

**Table 1** summarizes how the pandemic can act as a double-edged sword in

**Table 1.** Challenges and opportunities to address PWA's emotional distress.

	<b>Challenges amid the pandemic (Current limitations)</b>	<b>Opportunities to improve care of aphasia (Future directions)</b>
1. Overall emotional distress in PWA	<ul style="list-style-type: none"> <li>PWA have experienced various levels of emotional distress about COVID-19 and its impact on them, their loved ones, and their communities</li> </ul>	<ul style="list-style-type: none"> <li>To conduct more research investigations to examine the short- and long-term effects of COVID-19 on PWA's psychosocial well-being (Kong, 2021)</li> <li>To review and expand existing phone or online outreach programs or "check-in" services (e.g., Ryan, 2020) to supplement regular aphasia therapy</li> </ul>
2. Telepractice for PWA	<ul style="list-style-type: none"> <li>Telehealth for PWA has been around for years but has not been the most popular option (Kurland, Liu, &amp; Stokes, 2018)</li> <li>Some PWA might not be able to transition to teletherapy amid COVID due to digital inequality (Menger, Morris, &amp; Salis, 2016)</li> </ul>	<ul style="list-style-type: none"> <li>To continue to advocate and promote the application of telepractice, with reference to the COVID-related public health guidance and telehealth policy changes</li> <li>To explore application of online programs that treat and prevent stress-related disorders in PWA (e.g., Weiner et al., 2020)</li> <li>To monitor the sudden and unexpected growth of telepractice during COVID, which may evolve and prompt a new trend of remote or virtual PWA care in the future</li> </ul>
3. Use of technology	<ul style="list-style-type: none"> <li>COVID-19 prompted more PWA to turn to mobile applications and online resources for conducting home-based practice</li> <li>Available "Aphasia apps" are still limited (Vaezipour, Campbell, Theodoros, &amp; Russell, 2020) and predominantly available in English (National Aphasia Association, 2015)</li> </ul>	<ul style="list-style-type: none"> <li>To explore the use and effectiveness of digital tools (e.g., evidence-based websites, smartphone applications, or conversational agents) by PWA to ameliorate psychological symptoms (Zhang &amp; Smith, 2020)</li> <li>To develop more aphasia-specific applications in the future (Vaezipour, Campbell, Theodoros, &amp; Russell, 2020)</li> <li>To develop new and to further refine existing mobile health applications</li> <li>To monitor the clinical use of some new initiatives on family-mediated digital aphasia training</li> </ul>
4. Accessible information about COVID-19	<ul style="list-style-type: none"> <li>On average, most current government/official materials with information about COVID-19 are too complex for many readers (Hirsch, 2020)</li> <li>PWA had limited access to comprehensible and reliable health information about COVID-19</li> <li>PWA need communicatively accessible (i.e., aphasia friendly; Rose, Worrall, Hickson, &amp; Hoffmann, 2011) written health information about COVID-19</li> </ul>	<ul style="list-style-type: none"> <li>To improve and empower PWA to obtain, read, understand, and use information to make appropriate health decisions (i.e., health literacy; National Institutes of Health, 2021)</li> </ul>
5. Family support	<ul style="list-style-type: none"> <li>Caregivers of PWA assumed multiple important roles in the rehabilitative process and were overwhelmed (Shafer, Shafer, &amp; Haley, 2019)</li> </ul>	<ul style="list-style-type: none"> <li>To examine and gain a better understanding of psychological trauma caused by COVID-19 among caregivers of PWA (Sun et al., 2020; Xiang et al., 2020)</li> </ul>
6. PWA receiving training at home	<ul style="list-style-type: none"> <li>Home-based intervention was relatively less common (or unavailable) in the pre-COVID era</li> </ul>	<ul style="list-style-type: none"> <li>To increase use of virtual clinical visits conducted from PWA's home, given the convenience to receive therapy (which is also an incentive that PWA continue with teletherapy; Chiu, 2020)</li> <li>To examine if and how PWA respond differently to home-based therapy, as PWA feel less intimidated in a familiar environment</li> </ul>

aphasia management. Specifically, with reference to recent reports, the challenges posed to management of aphasia (i.e., current limitations caused by COVID-19) are summarized. Some potential opportunities (i.e., future directions to improve care of aphasia) to address PWA's needs, with an emphasis on their emotional distress, amid and after the pandemic are proposed.

## 5. Conclusion

The COVID-19 pandemic has negatively influenced PWA in many ways but, at the same time, provides unique opportunities for robust evaluation of pre-outbreak interventions. Most treatment studies in the literature of Aphasiology have focused on improving the communication aspect. With the psychological implications to PWA, more research is warranted to help us understand the short- and long-term effects of COVID-19 on PWA's psychosocial well-being.

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## Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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