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INVITED COMMENTARY

Sex and Gender Issues for Individuals With Acquired Brain Injury During COVID-19: A Commentary



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Abstract

Worldwide, the rehabilitation community has been affected by coronavirus disease 2019 (COVID-19). The effect of COVID-19 has been disproportionately devastating for individuals with disabilities, particularly those with acquired brain injury (ABI) owing to injury-related cognitive or sensory and physical difficulties. Many physical and psychological symptoms of COVID-19 are already well-known issues for individuals with ABI. Even in a fully functional social and health care system, post-ABI deficits can pose greater challenges to women and other marginalized groups, such as lesbian, gay, bisexual, transgender, gender-nonconforming, and queer or questioning-identified individuals. The restrictions and changes brought about by COVID-19 have the potential to broaden the existing disparities and limitations. This commentary highlights 3 key areas to attend to during this pandemic to help assuage such disparities and limitations.

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Acquired brain injury (ABI), which includes traumatic (eg, fall, motor vehicle collision, penetrating injury) and nontraumatic (eg, aneurysm, anoxia, stroke, tumor) injury, frequently results in persistent and debilitating physical, cognitive, and emotional deficits and long-term or permanent disability.¹⁻⁷ According to the Global Burden of Disease Study in 2016, the incidence of traumatic brain injury was 1,221,494 in North America and 27,082,033 across the globe.⁸ Similarly, the incidence of stroke, which is only one etiology of nontraumatic brain injury, was 812,285 in North American and 13,676,761 globally.⁹ Combined, these numbers still underestimate of all types of ABI worldwide. This suggests that a notable proportion of the population are living with the effect of ABI-related disability.

Even in a fully functional social and health care system, individuals with disabilities face greater challenges. For individuals with ABI, these challenges are directly or indirectly related to physical or cognitive deficits secondary to their injury. Within the ABI population, there are additional disparities, the most explored and notable among women (by sex or gender) as well as the less explored marginalized groups, such as lesbian, gay, bisexual, transgender, gender-nonconforming, and queer or questioning-identified (LGBTQ+) individuals. Although men have

significantly higher rates of ABI, women and LGBTQ+ individuals have worse long-term outcomes and experience higher rates of social, financial, and structural barriers than men with ABI.¹⁰⁻¹²

Worldwide, the rehabilitation community has been affected by coronavirus disease 2019 (COVID-19). The effect of COVID-19 has been disproportionately devastating for individuals with disabilities, particularly those with ABI owing to injury-related cognitive or sensory and physical difficulties. Between December 2019 and July 18, 2020, COVID-19 was confirmed in 14,280,571 cases, with 601,268 deaths and 8530,951 individuals who recovered, in 213 countries around the world.¹³ This global threat, characterized by the World Health Organization as a pandemic,¹⁴ typically presents clinically with infections in the respiratory and gastrointestinal tracts and with symptoms similar to viral pneumonia such as severe acute respiratory syndrome and Middle East respiratory syndrome,¹⁵ with more extensive lung disease in men.¹⁶

According to one meta-analysis of 16 clinical COVID-19 symptoms, fever, cough, and fatigue were the most common.¹⁷ Although women and men appear to contract COVID-19 at the same rate, more severe morbidity and overall mortality rates are much higher in men.^{18,19} However, in general, both men and women with COVID-19 have been shown to have higher rates of anxiety, depression, anger, loneliness, hazardous and harmful alcohol use, posttraumatic stress symptoms, and lower mental wellbeing than the general population.^{20,21} Furthermore, women

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around the world are at a greater risk for intimate partner violence (IPV) as a result of COVID-19,²² with one police department reporting triple the incoming statements of IPV in February 2020 compared to February 2019.²³ Similar to COVID-19 and ABI, IPV causes isolation as well as additional physical, psychological, and sexual reproductive health issues for women,²⁴ including headaches, depression, posttraumatic stress disorder, anxiety, sleep difficulties, gastrointestinal symptoms, substance misuse, and poorer overall health.¹⁴ Unfortunately, most of these physical and psychological symptoms are already well-known issues for individuals with ABI.

Previous experience with natural disasters suggests that marginalized groups experience substantially more negative consequences in times of natural disaster, which warrants enhanced support and advocacy. For example, LGBTQ+ individuals are at a disadvantage, both for greater risk of COVID-19 mortality²⁵ and poorer ABI related treatment,¹² such as “lack of specialized and knowledgeable screening, education, and treatment for reproductive health, sexuality, and sexual performance related issues.”^{12(p377)} Although the current COVID-19 pandemic is certain to lead to many unknown and unanticipated outcomes in this and other groups, there are specific areas known to affect women and LGBTQ+ individuals with ABI, namely IPV, social and financial disparities, and technological accessibility. Disparities in these domains can be expected to be exacerbated by the current state of the world and lead to further marginalization, making them critical to highlight as potential intervention targets.

Women and LGBTQ+ individuals in general, and especially those with ABI, are more likely to be victims of abuse and violence, including IPV, which almost always results in multiple repeat injuries, including traumatic brain injury.^{26,27} Unfortunately, COVID-19 has increased the likelihood of this occurrence. Because the perpetrator is most likely to be a romantic partner, caregiver, or another individual within the home, stay at home orders increase the exposure of the victim to the victimizer, increasing the probability of abuse. The social distancing guidelines and closing of many services, such as shelters and other social programs, minimize the opportunity for escape. Furthermore, the surge of COVID-19 in medical settings likely reduces the chances of the abused seeking medical care for their injuries.

Women and LGBTQ+ individuals with ABI are faced with greater social and economic disparities, as well as general and technological accessibility issues, which are expected to be worsened by the current pandemic. Women and LGBTQ+ individuals with ABI are more likely to be affected by poverty, social isolation, lack of familial support, lack of transportation, and lack of community resources.¹² Furthermore, women report more symptoms of depression, anxiety, fatigue, and sleep disturbance than men with ABI.²⁸ The restructuring of the social and health care system (eg, conversion of rehabilitation units into COVID-19 units²⁹ and some therapy services being deemed nonessential³⁰) are likely to magnify the inequities in the

accessibility of necessary services among women with ABI. Although all individuals with ABI may experience greater challenges in accessing essential services in light of the shift in how these services can be accessed (eg, changes in business operations, social distancing guidelines, greater reliance on the internet, curbside pick-up may not be wheelchair accessible, limited public transportation may limit the ability to get to medical noncancelled appointments, medical transportation services may be extremely limited or also cancelled.), women with ABI are more likely to lack the resources (internet access or even a computer) and support (family member, caregiver) to help them navigate these increased challenges.

Along these lines, with the majority of essential services and everyday activities, including shopping, health care, and even social interactions, transitioning to electronic online formats, individuals with cognitive and sensory deficits are faced with navigating these complex and unfamiliar environments that are rarely accommodating to their unique post-ABI challenges. In the setting of social distancing, they may be left without much-needed technical assistance. Even when individuals are able to access in-person health care services, the landscape of these services is significantly altered. Having an aide or family assistant attend appointments with the individual with ABI to offset their cognitive difficulties in the provision and gathering of critical information is limited or completely disallowed. Mental health services may be limited to telehealth (which has accessibility limitations noted above) or unavailable, which could further increase suicide rates.³¹

ABI leads to chronic debilitating physical, cognitive, and emotional difficulties that compromise daily function and contribute to long-term disability in a large proportion of individuals. Although more men are afflicted with ABI, women and LGBTQ+ individuals are disproportionately affected by poorer outcomes, many of which are systemic. The restrictions and changes brought about by COVID-19 have the potential to broaden the existing disparities and exhaust the limited functional resources of these individuals. Special attention and intervention is warranted in the areas of (1) IPV, especially in the current environment of greater social isolation and less accessible resources for physical escape and psychological support; (2) accessibility of basic goods and health care services, especially with regard to the use of technology and web-based forums that are not optimized for individuals with ABI-related cognitive and sensory deficits; and (3) availability and accessibility of financial, social, and emotional support.

Keywords

Brain injuries; Coronavirus; Gender identity; Rehabilitation; Sex

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List of abbreviations:

ABI	acquired brain injury
COVID-19	coronavirus disease 2019
IPV	intimate partner violence
LGBTQ+	lesbian, gay, bisexual, transgender, gender-nonconforming, and queer or questioning-identified

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