

Barriers to personal hygiene in persons with spinal cord injury during the COVID-19 pandemic and lockdown: A rehabilitation perspective of two cases

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ABSTRACT

Personal hygiene is the most important measure to prevent coronavirus disease 19 (COVID-19). The pandemic has put persons with disabilities into various challenges. People with spinal cord injury (SCI) are facing these obstacles more because of their altered physiology and increased susceptibility to COVID-19. Through telerehabilitation, hurdles were identified in two paraplegic individuals, such as safe water sources, concerns regarding self-catheterization, increased dependence on care partner, hygiene of assistive aids/wheelchairs, availability of dressing materials for pressure injury dressing, and sanitary pads for menstrual hygiene. To the best of our knowledge, these are the first cases to describe hygiene concerns of SCI people during the COVID-19 pandemic and its rehabilitation implications. Considering the population with disabilities, we should improve access to primary care at the community level regarding personal hygiene. For a large population with disabilities such as SCI who are at risk, simple health education, awareness, and economic ways of hygienic practices can be a saviour.

Keywords: Barriers, COVID-19, hygiene, pandemic, rehabilitation, spinal cord injury

Introduction

People with disabilities in developing countries 'may have poorer quality of access' to adequate water, sanitation, and hygiene (WASH) within their households.^[1] Moreover, safe water is inaccessible to 663 million people globally. Basic hygiene with soap and clean water is the easiest and most effective way to prevent a variety of infections, and the coronavirus disease 19 (COVID-19) pandemic has brought extra attention to these hygienic practices.^[2]

Regarding hygienic practice, people with spinal cord injury (SCI) during this pandemic have faced different difficulties from that of the general population.^[3] Before this pandemic, people with SCI have learned to live with their condition within the given functional abilities. The COVID-19 pandemic has hampered the attainment of these functional abilities physically, psychologically, and socioeconomically. As susceptibility to infections increases in SCI people, removing restrictions and maintaining proper hygienic practices are very important.^[4] Although specific studies in the SCI population during this pandemic are lacking, it is very clear that mobility restriction is probably an important hindrance to optimum hygienic practice in SCI. As a first contact, primary care providers (PCPs) have an immense role in cases of SCI and in cases of hygienic practice and health education at the community level, which would help in the health promotion of differently abled people during the pandemic.^[5,6] Barriers to

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personal hygiene in persons with SCI during the COVID-19 pandemic and lockdown have been highlighted through two (male and female) cases.

Case Scenarios

A 30-year-old male with paraplegia (Patient A) with L1 American Spinal Injury Association (ASIA) impairment scale A SCI was admitted for in-patient rehabilitation before this COVID-19 outbreak. At discharge, he was able to ambulate himself with bilateral knee-ankle-foot orthosis (KAFO) and bilateral elbow crutches. He was also trained with a wheelchair for community ambulation. He had multiple complications such as one grade 4 pressure injury over the right ischium, scabies, neurogenic bladder, and bowel. At discharge, scabies was resolved, pressure injury was healing well, and self-intermittent catheterization 4-hourly was followed. After his discharge as the COVID-19 outbreak started to increase, considering his history of multiple hygiene-related complications, he was contacted over a telephonic conversation. Also considering the current situation of increasing COVID-19 cases, lockdown, social distancing, and increased susceptibility of the SCI population, telephonic conversation was preferred.

Another patient (Patient B), a 23-year-old female with D6 ASIA impairment scale (AIS) A SCI, was also admitted for in-patient rehabilitation during the same time. At discharge, she was able to ambulate herself with a wheelchair only and achieved therapeutic standing with bilateral HKAFO within the standing frame only. She had a neurogenic bladder and bowel. She was taught self-clean intermittent catheterization (CIC) 4-hourly, but during the pandemic, she quit self-CIC and started care-partner-assisted CIC. Regarding menstrual hygiene, she is managing well, but there is increased dependence on the caregiver because of fear of infection during the pandemic. Self-reported hygiene-related concerns of both the patients during the pandemic have been summarised [Table 1].

Table 1: Patients' self-reported hygiene-related concerns during COVID-19

Patient A	Patient B
Problems with hand washing practice as the water source is outside the house. Even if his wife brings water, he has to be completely dependent for hand washing practices.	Problems with frequent hand washing because of mobility restriction.
Stopped self-feeding now because of hand washing problems.	Self-feeding occasionally, but decreased self-feeding because of hand washing problems.
Concerns regarding washing of KAFOs and crutches.	Concerns regarding washing of KAFOs and crutches.
Stopped wheelchair use as he is staying completely at home.	Reduced wheelchair use, staying at home, using a wheelchair at home only.
Pressure injury dressing materials and medicine availability during lockdown.	Fear and difficulty during menstrual hygiene practices. Concerns exist regarding availability and safety of sanitary pads during lockdown.

Previous literature reviewed telerehabilitation in SCI, stating it 'socioeconomically and environmentally favourable', and considering the current pandemic, we preferred telerehabilitation through phone calls. Advice regarding hygienic practices and precautions was given following the recent recommendations of the International Spinal Cord Society (ISICOS) and the Centers for Disease Control and Prevention (CDC).^[7,8]

Discussion

To the best of our knowledge, these are the first cases to describe the hygiene concerns of SCI people during the pandemic and its rehabilitation implications. In view of an increasing number of cases and considering the population of disabled and susceptible such as SCI, we should increase health education at the community level regarding personal hygiene.^[2,3,7,8] For a 'better point of care', PCPs can play an essential role during this pandemic.^[5,6] From this case, the rehabilitation challenges and barriers identified are as follows: first, in SCI, mobility restriction directly hinders hand hygiene practices. Second, people with pre-existing contagious skin infection (scabies here) need more vigorous hygienic practice, but it gets more difficult rendering the SCI patient more dependent. Third, the pandemic has made SCI patients more dependent on caregivers during activities of daily living in which patients were previously independent. Fourth, because of fear of infection, self-CIC became caregiver-assisted CIC. Fifth, mobility restriction and staying at home have increased the duration of sitting time and decreased the duration and quantity of exercises, activities, and wheelchair mobility, which the patient used to do before this outbreak. It hampers proper pressure relief techniques and pressure injury hygiene. Sixth, the lack of awareness and knowledge about the hygiene of assistive aids during this pandemic has also directly impacted the overall hygienic status of a disabled person. Keeping these barriers in mind would help family care or PCPs to cater services at the individual and community levels.^[5,6]

Findings of these cases are important during this pandemic because of a few reasons: first, hand and personal hygiene is the most important measure to prevent severe acute respiratory syndrome coronavirus 2 infection; second, soap and water use for hygiene is the most economical compared to alcoholic hand sanitizers for the SCI population belonging to a lower economic status; third, identifying barriers to hygiene in the SCI population will help in breaking those barriers for optimum health and functioning; fourth, the SCI population is susceptible to infection,^[4] and hence, optimum hygienic practice is very important to prevent infections in these people; and fifth, providing an economical solution to problems is an important step of rehabilitation during this pandemic in developing countries.^[7,8] Furthermore, improved access to PCPs would help in better knowledge and breaking of such barriers. Such primary care services at the community level would be economical and help promote equitable distribution of health services for people with disabilities.

Conclusion

Further studies are needed to address those concerns of the SCI population during pandemics among different socioeconomic statuses in developing and developed countries. Simple health education, awareness, improved access to PCPs, and the simplest economic ways of hygienic practices can be a saviour for SCI people during the pandemic, and at the same time, they may accelerate the rehabilitation process positively.

Patients' consent

Written informed consents were obtained from two patients.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

Compliance with ethical guidance

Institutional ethics committee clearance is not required for case reports.

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Conflicts of interest

There are no conflicts of interest.

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