Personal hygiene care in persons with spinal cord injury during the COVID-19 pandemic and lockdown: an Indian perspective

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Received: 17 June 2020 / Accepted: 5 August 2020 © International Spinal Cord Society 2020

To the Editor:

Globally 2.1 billion people lack safe water at home [1], yet it is indispensable to maintain health and hygiene. In a
developing country, basic hygiene with soap and clean water is the most effective and economical way to prevent
many respiratory, gastrointestinal and skin infections. Coronavirus Disease 2019 (COVID-19) is an infectious disease
cauicted by Severe Acute Respiratory Syndrome Coronavirus 2 (SAR-CoV-2). This pandemic has reinforced the need for
basic hygiene. From frequent handwashing to wearing
masks, COVID-19 has set our life-style to a new normal.

We would like to highlight the barriers to personal
hygiene in persons with Spinal Cord Injury (SCI) during
this pandemic and lockdown in India. We would also like to
point out how these barriers may influence rehabilitation in
similar developing country settings and ways to
overcome them.

In India, COVID-19 cases have crossed half a million
[2]. In conjunction with this pandemic, we emphasize that
people with SCI are susceptible to infection [3, 4] and can
present with atypical symptoms of a SAR-CoV-2 infection
[5]. Hence, optimum hygienic practice is of utmost impor-
tance to prevent infections in these individuals, and hand
hygiene remains the most important measure to prevent
SARS-CoV-2 infection [2]. Soap-water use for hygiene is
the most economical measure compared to alcohol-based
sanitizer for persons with SCI, as they usually belong to
lower economic groups, and identifying physical,
environmental, resource-related, educational and psycholo-
gical barriers (lack of availability of caregivers for cleaning,
washing, lack of education and information on personal
hygiene maintenance, anxiety, panic, lack of resources such
as toilets, etc) to hygiene will help in sustaining optimum
health and functioning. In sum, we must not forget that
providing customized socioeconomic solutions to the pro-
blem is an important step of rehabilitation during the
pandemic.

Regarding hygienic practice, the story of the individuals
with SCI has turned out to be different from that of able-
bodied individuals. Until this pandemic, people with SCI
have learned to live within their functional abilities. How-
ever, the impact of COVID-19 has restricted the attainment
of optimal functional ability medically, psychologically,
and socioeconomically. As susceptibility to infections
increases in individuals with SCI [3, 4], removing restric-
tions and maintaining proper hygienic practices are impor-
tant. Specific studies in people with SCI during this
pandemic are lacking, but it is conspicuous that mobility
restriction and environmental barriers are two important
hindrances to optimal hygienic practice among people
with SCI.

A study conducted in developing countries showed that
people with disabilities ‘may have poorer quality of access’
to adequate water, sanitation, and hygiene within their
households [6]. A recently published survey on COVID-19
and SCI also highlighted the need for studies regarding the
concerns among people with SCI during this pandemic [7].

Common issues with hygiene in India and other devel-
oping countries are lack of access to safe water, water
constraints, difficulty getting access to soap [8], lack of
enough flooring and overcrowding in homes, and problems
with open defecation and waste and excreta disposal,
amongst other issues. An increasing population and socio-
economic differences also affect health and hygiene in India
[9]. COVID-19 has aggravated these pre-existing issues, in
particular among people with SCI. Furthermore, in the view
of an increasing number of COVID-19 cases, and

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Published online: 20 August 2020
considering the population of disabled and susceptible individuals, we would recommend to increase health education at the community level regarding personal hygiene. In conjunction with COVID-19, we have noticed different impacts in individuals with SCI. First, mobility restrictions directly hinder hand hygiene. Furthermore, people with pre-existing contagious skin infections like scabies, need more vigorous hygienic practice but this is more difficult with SCI, and thus makes people more dependent. Second, COVID-19 has made people with SCI more dependent on care providers and related fear (fear of transmission, sense of insecurity regarding the adequacy of own hand-hygiene due to functional restriction, etc.) has resulted in a need for increased assistance in clean intermittent catheterizations. Mobility restrictions and greater isolation at home have increased the duration of bed time and sitting time, and decreased the frequency of exercises, outdoor activities, and wheelchair mobility that individuals with SCI would previously perform. This hampers adequate pressure relief techniques and pressure injury hygiene. Proper menstrual hygiene is a concern in females with SCI and a lack of awareness and knowledge regarding the hygiene of assistive aids is another issue. Finally, in the financial crisis, worldwide COVID-19 has had a negative impact on employment and income. This leads to a vicious cycle where a financial crisis leads to a constraint on materials essential for personal hygiene and subsequent poorer hygiene, making people more vulnerable to infections, especially for people from a low socioeconomic group. People with SCI are in particular vulnerable in this situation which eventually, results in increased expenditure on health and a deeper financial crisis.

Further studies are needed to address the concerns of individuals with SCI during pandemics in developing countries. In times of pandemics, vulnerable individuals are particularly in need of good education regarding the importance of proper health hygiene. Telerehabilitation approaches (using telephonic calls, stored customized videos, messages etc.,) would be applicable in an Indian setting [10] and to other low to medium-income countries during pandemics, and also in situations where travel distances and travel costs would be a hindrance to proper follow-up. Considering the current scenario of social distancing, various telerehabilitation initiatives [11, 12] would be an optimal solution for people with SCI, so that they can stay home, stay functional, and stay safe.

Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

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References

1. World Health Organization Website. 2020. https://www.who.int/water_sanitation_health/monitoring/coverage/jmp-update-2017-graphics/en/. Accessed 30 June 2020.
2. World Health Organization Website. 2020. https://www.who.int/. Accessed 30 June 2020.
3. Held KS, Steward O, Blanc C, Lane TE. Impaired immune responses following spinal cord injury lead to reduced ability to control viral infection. Exp Neurol. 2010;226:242–253. https://doi.org/10.1016/j.expneurol.2010.08.036.
4. Brommer B, Engel O, Korp MA, Watzlawick R, Müller S, Prüss H, et al. Spinal cord injury-induced immune deficiency syndrome enhances infection susceptibility dependent on lesion level. Brain. 2016;139(Pt 3):692–707.
5. Dicks MA, Clements ND, Gibbons CR, Verduzco-Gutierrez M, Trbovich M. Atypical presentation of Covid-19 in persons with spinal cord injury [letter]. Spinal Cord Ser Cases. 2020;6:38. https://doi.org/10.1038/s41394-020-0289-2.
6. Mactaggart I, Schmidt W-P, Bostoen K, Chunga J, Danquah L, Halder AK, et al. Access to water and sanitation among people with disabilities: results from cross-sectional surveys in Bangladesh, Cameroon, India and Malawi. BMJ Open. 2018;8:e020077. https://doi.org/10.1136/bmjopen-2017-020077.
7. Stillman M, Capron M, Alexander M, Longoni M, Scivoletto G. COVID-19 and spinal cord injury and disease: results of an international survey. Spinal Cord Ser Cases. 2020;6:21. https://doi.org/10.1038/s41394-020-0275-8.
8. Centers for Disease Control and Prevention Website. 2020. https://www.cdc.gov/healthywater/hygiene/ltdc/index.html. Accessed 30 June 2020.
9. Asaria M, Mazumdar S, Chowdhury S, Mazumdar P, Mukhopadhyay A, Gupta I. Socioeconomic inequality in life expectancy in India. BMJ Glob Health. 2019;4:e001445. https://doi.org/10.1136/bmjgh-2019-001445.
10. Tyagi N, Amar Goel S, Alexander M. Improving quality of life after spinal cord injury in India with telehealth. Spinal Cord Ser Cases. 2019;5:1–5.
11. Irgens I, Rekand T, Arora M, Liu N, Marshall R, Biringer-Sorensen F, et al. Telerehabilitation for people with spinal cord injury: a narrative review. Spinal Cord. 2019;56:463–55.
12. Sustain Our Abilities [YouTube channel]. 2020. https://www.youtube.com/channel/UCqtl5Ua105qD-dxwyODdsw/. Accessed 20 June 2020.