

Perceived Community Environmental Usability as Predictors of Quality of Life and Self-Efficacy Among Individuals With Spinal Cord Injury

Yan-hua Huang¹, Elisabeth Bolten, Nader Abolhosn, Heather Bocianski, Julia Adams

¹California State University Dominguez Hills, Carson, CA, USA

DOI: 10.5014/ajot.2022.76S1-PO169

Date presented: April 2, 2022

Primary Author and Speaker: Yan-hua Huang, yhuang@csudh.edu

PURPOSE: The current clinical reasoning for addressing environmental barriers among people with physical disabilities is the belief that it may contribute to not only improved occupational performance but increased participation, life satisfaction, health, and quality of life (Healthy People, 2020; Wong et al., 2015; Reinhardt et al., 2020). Unfortunately, the spinal cord injury (SCI) population is highly susceptible to experiencing discord between one's client factors and the demands of their environment (Heinemann, 2015). The purpose of this study is to investigate how perceived facilitators and barriers to community engagement correlate to perceived quality of life and self-efficacy among individuals with SCI.

DESIGN: Researchers used a quantitative survey research design and included participants who were 18 years or older, English-speaking, and sustained a spinal cord injury at least one year prior to taking the survey.

METHOD: 204 individuals with a SCI completed an online survey consisting of the Facilitators and Barriers Survey for People with Mobility Limitations version 2 (FABS-Mv2), 36-Item Short Form Survey (SF-36), and Moorong Self-Efficacy Scale (MSES) to measure environmental facilitators and barriers, environmental barriers, quality of life, and self-efficacy. Pearson correlation and linear regression analysis were used to determine predictors of quality of life and self-efficacy.

RESULTS: The results suggest there is a positive relationship between FABS-Mv2 Community Site Usability and SF-36 QoL measures ($r = .22, p < .01$) as well as Moorong Self Efficacy ($r = .37, p < .01$). Specifically, limitations from the FABS-Mv2 Transportation ($r = -.14, p < .05$), Specialized Equipment ($r = -.18, p < .05$), Personal Assistance ($r = -.19, p < .01$), and Restroom Usability ($r = .15, p < .05$) correlated with SF-36 scores. Additionally, participants' FABS-Mv2 scores indicated the perception of community site usability ($b = 0.32, t(47) = 2.53, p < 0.05$), community built features ($b = -0.376, t(47) = -2.98, p < 0.01$), and limitations of community accessibility due to personal assistants ($b = -0.31, t(47) = -2.40, p < .05$) were predictors for total SF-36 scores. Furthermore, MSES was predicted by educational level ($b = .176, t(193) = 2.57, p < 0.05$), annual income ($b = .196, t(193) = 4.65, p < .01$), and whether an individual has sustained a complete or incomplete SCI injury ($b = .176, t(193) = 2.57, p < 0.01$).

CONCLUSION: Those with SCI who experience barriers in transportation, specialized equipment, personal assistance, and restroom usability may have lower quality of life. Furthermore, there were significant differences between self-efficacy scores based on the individual's annual income, education level, or whether they have a complete or incomplete injury. Occupational therapists can use the results from this study to advocate that the identified community usability limitations be addressed because environmental barriers play an important role in quality of life. Additionally, it is crucial occupational therapists take the identified person factors into account when treatment planning.

References

- Reinhardt, J. D., Middleton, J., Bökel, A., Kovindha, A., Kyriakides, A., Hajjioui, Abderrazak, Kouda, K., & Kujawa, J. (2020). Environmental barriers experienced by people with spinal cord injury across 22 countries: Results from a cross-sectional survey. *Archives of Physical Medicine and Rehabilitation, 101*(12), 2144-2156. <https://doi.org/10.1016/j.apmr.2020.04.027>
- Silver, J., Ljungberg, I., Libin, A., & Groah, S. (2012). Barriers for individuals with spinal cord injury returning to the community: A preliminary classification. *Disability and Health Journal, 5*(3), 190-196. <https://doi.org/10.1016/j.dhjo.2012.03.005>
- Tsai, I.-H., Graves, D. E., Chan, W., Darkoh, C., Lee, M.-S., & Pompeii, L. A. (2017). Environmental barriers and social participation in individuals with spinal cord injury. *Rehabilitation Psychology, 62*(1), 36-44. <https://doi-org.libproxy.csudh.edu/10.1037/rep0000117>
- Whiteneck, G., Meade, A. M., Dijkers, M., Tate, G. D., Bushnik, T., & Forchheimer, B. M. (2004). Environmental factors and their role in participation and life satisfaction after spinal cord injury. *Archives of Physical Medicine and Rehabilitation, 85*(11), 1793-1803. <https://doi.org/10.1016/j.apmr.2004.04.024>