

174 The role of outdoor recreation during the COVID-19 pandemic and its impacts on recreational behavior and attitudes towards nature in Finland

Liisa Tyrväinen, Anne-Mari Sepponen, Tuija Lankia, Marjo Neuvonen, Natural Resources Institute Finland (Luke), Finland

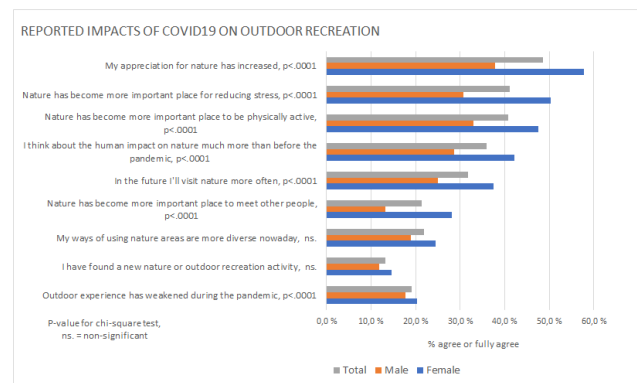
The overall participation in outdoor recreation has been high and remained rather stable in 20 years' time of outdoor recreation monitoring in Finland. A long-term trend also indicates slight increase in outdoor recreation visits among the Finnish adult population. Moreover, the importance of health and well-being benefits from nature have steadily increased and boosted at least partly by continued urbanization and adoption of modern lifestyles. These health supporting benefits are also more intentionally sought for among recreationists (Neuvonen et al. 2019, Tyrväinen et al. 2019).

The outbreak of covid-19 pandemic changed globally dramatically everyday life routines and increased in many countries demand for recreation opportunities particularly in urban areas (e.g. Derks et al 2020). In Finland, there has not been any use restrictions of natural areas during the pandemic. The ongoing national inventory of outdoor recreation (2019-2021) gave a unique opportunity to study effects of pandemic of people's outdoor recreation behavior on a national level. In order to understand the importance of green spaces in supporting people's well-being during pandemic, we studied i) how pandemic affects people's recreation behavior and experiences ii) which population groups rely on nature areas the most and iii) what kind of impacts pandemic may have on attitudes and values of people towards nature and outdoor recreation.

The data used in this study was collected in a national outdoor recreation inventory (round 4, LVVI3) in the autumn 2020 that included questions specifically targeting the effects of covid-19 on outdoor recreation (n=1500). Data consist of a random sample of Finns aged from 15 to 80 years. Data collection was conducted in cooperation with Statistics Finland.

The set of questions focused on identifying changes regarding frequencies and patterns in visiting nature during pandemic compared to normal situation. Moreover, we studied to what extent

outdoor recreation was found to help in adapting to the changed situation and restrictions set for travelling and spending leisure time and, what kind of access people had to nature during the pandemic. We also investigated motivations to visit nature and, for example, how pandemic may have impacted the appreciation of green areas and access to or attitudes towards nature. Moreover, were interested to know if quality of outdoor recreation experiences changed during the pandemic.



The results show that outdoor recreation participation increased during the pandemic. Nearly half of the respondents reported increased appreciation towards the nature. Clear gender differences in attitudes were found. Female respondents reported higher increase in appreciation towards nature as well as have gained more well-being benefits from nature such as improved stress reduction, possibility for physical exercise and for maintaining social contacts compare to male respondents. Moreover, female respondent expressed to have more intentions to visit nature also in the future compared to male respondents.

We also found that residents living in cities reported more impacts on covid-19 on their outdoor recreation possibilities and choices compared to residents living in the rural areas. Young respondents (15-24 years of age) reported to have found new outdoor activities more often compared to other age groups. Most frequently mentioned motives for visits were up-keeping physical condition, peace and

quietness, beautiful nature landscapes, stress recovery and relaxation and possibility for own time. Two thirds of respondents reported no changes in the use of their typical outdoor recreation area during the pandemic. Every tenth respondent (10%) reported that they had to use another area located further away implying the need for increased travelling and the use of a car. Moreover, 11% of all respondents reported not have been able to visit their typical nature area due to other visitors. Fifth of female respondents assessed that their outdoor recreation experience had weakened during the pandemic.

This study provides insights into the role and importance of outdoor recreation to citizens when adapting to changes during pandemic. The results suggest that good provision of recreation opportunities increases the adaptive capacities of the societies during the pandemic. Moreover, in growing urban areas such as Helsinki MPA increased used of nature during pandemic revealed potential problems linked to supply of green areas if number

of users would substantially grow. In consequence, pandemic triggered discussions regarding what is an adequate supply of recreation areas in the future as rather strong compaction city structure and infill on nature areas is anticipated in the whole MPA in the future.

The research results also provide more detailed information on the role of nature areas on human health and well-being during pandemic and help communities to plan mitigation effects of possible pandemic for the future. The study highlights the important role of nature spaces for public health in urban areas. It also supports spatial and management planning of the areas to sustain adequate provision of green areas in changing conditions in the future.

References

Derks, J., Giessen, L. & Winkel, G. 2020. COVID-19-induced visitor boom reveals the importance of forests as critical infrastructure. *Forest Policy and Economics*. Vol. 118. <https://doi.org/10.1016/j.forpol.2020.102253>.
Neuvonen, L., Kangas, K., Ojala, O., & Tyrväinen, L. 2019. Urban nature promoting residents' physical exercise in Helsinki. *Liikunta & Tiede* 56 (6), 77–86. <https://www.lts.fi/liikunta-tiede/vertaisarvioidut-tutkimusartikkelit.html> (In Finnish).
Tyrväinen, L., Bauer, N & O'Brien, L. 2019. Impacts of forests on human health and well-being. In: Marusakova, L. & Sallmanshofer, M., *Human health and sustainable forest management. FOREST EUROPE Study, FORESTS EUROPE, Liaison Unit Bratislava*, ISBN 978 - 80 - 8093 - 265 - 7. p.30-57. https://foresteurope.org/wp-content/uploads/2017/08/Forest_book_final_WEBpdf.pdf