Sustainability | Individual communication

IC - (21395) - WALKING AND WALKABILITY IN THE FACE OF THE PANDEMIC

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Background and objectives
The implementation of emergency measures during the first pandemic lockdown dramatically changed the travel habits of the population. People, young and old, were at home, telecommuting, or in distance learning. Grocery stores, convenience stores, and pharmacies were the only businesses open, with access limited to one person per household. How did it affect people's amount of walking? Did areas with higher walkability indices keep people walking? How did more peripheral, car-friendly, areas performed with traffic drastically reduced?

Process and methods (for empirical research)
This communication compares the walking weekly time before and during the 2020 Spring confinement of 893 respondents from the MAVIPAN longitudinal panel web survey (Leblanc et al. 2020). The self-reported measures were also georeferenced based on postal codes with three first digits to verify if the tendency to walk more in neighborhoods with higher walkability indexes fades during the confinement period, such as work, schools, shopping, and entertaining no longer acted as generators of active travel.

Main results (or main arguments in the case of critical reviews)
The results of the analyses revealed a general downward trend of 11% in weekly walking time during the confinement (negative binomial repeated measures regression model, TI=0.894, p=0.060). Two binomial negative regression models also confirmed that before the confinement, respondents who lived in higher walk score areas (TI=2,762, p=0,001*) and in more central neighborhoods (TI=0,930; p=0,052*) walked more than those living in less walkable areas and more remote areas. In contrast, during the confinement, there was no longer any differences detected (TI=1,004, p=0.931; TI=1,246, p=0,579). In times of strict confinement, the best predictors of weekly walking, revealed by a multivariate regression model combining 18 indicators, are the respondent's age– the older the more walking (T1=1,011, p=0,001) – and the level of cardiovascular activity before confinement – the higher, the more walking (T1=1,189, p=0,001). Neither income, gender, being a single parent, student, teleworker, or health professional, nor feeling physically or mentally healthy or not during confinement were significant, nor did having access to large bodies of water, parks, local services, or sidewalks.

Implications for research and practice/policy | Importance and originality of the contribution
Further analyses are needed but the dimensions of the built environment associated with the walkability index do not seem to be good predictors of walking during confinement. The impact of telework on lowering high traffic levels and its related nuisances (pollution, noise, pedestrian safety), as well as the free time it generated for recreative walking, needs to be further investigated.

Palavras-chave : Physical activity, walking, walkability, confinement, urban design