The association between bicycling, accidents and self-rated health satisfaction

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Abstract

In order to assess the benefits or consequences related to the transition from motorised to active transports, Health Impact Assessment (HIA) studies utilise results from separate studies regarding the associated benefits and consequences to different transport modes. In this study we propose an alternate method to evaluate the HIA of bicycling. By obtaining measures of self-rated health and perceived quality of life (QoL) via an online survey, this study aims to investigate the joint association between cycling, recent bicycle accidents and the self-rated health satisfaction or QoL. By evaluating cycling exposure, recent bicycle accidents, self-rated health satisfaction and perceived QoL from the same participant, we overcome the need to combine aggregated results from separate studies. The results show that increased weekly cycling exposure is associated to higher likelihood of being satisfied with one’s own health as well as a higher perception of one’s QoL. Specifically, the model estimation results in the identification of two levels of effect with regard to cycling exposure associated to the likelihood of optimal health satisfaction and QoL. People cycling 1-5 hours a week were twice as likely as people cycling 1 hour less to be at least satisfied with their health and perceiving the QoL as good. Meanwhile, people cycling more than 5 hours per week were more than 4 times as likely as the ones cycling 1 hour less to be at least satisfied with their health and perceiving the QoL as good. Involvement in recent bicycle accidents, was related to a decrease in the likelihood of being satisfied with one’s health and perceiving the QoL as good. However, the effect related to recent accidents was not significant and it was found that people cycling a lot, suffering many accidents, still had higher satisfaction with their health and perceived QoL than people cycling less.

Keywords: Health Impact Assessment, Self-rated health, Benefits of cycling, Survey study

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