

What are the health and well-being outcomes of using an e-bike as an alternative mode of transport?

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Background

Little research has been undertaken in Australia that examines the health and well-being effects of using electric bikes (e-bikes) as an alternative mode of transport (Langford et al. 2016). A systematic review by Bourne et al. (2018) suggests more research is needed to investigate the psychological impacts of using e-bikes.

Objectives

To assess the potential for e-bikes to reduce commuter car travel in the Noosa Shire and to assess the health and wellbeing impacts related to e-bike usage.

Methods

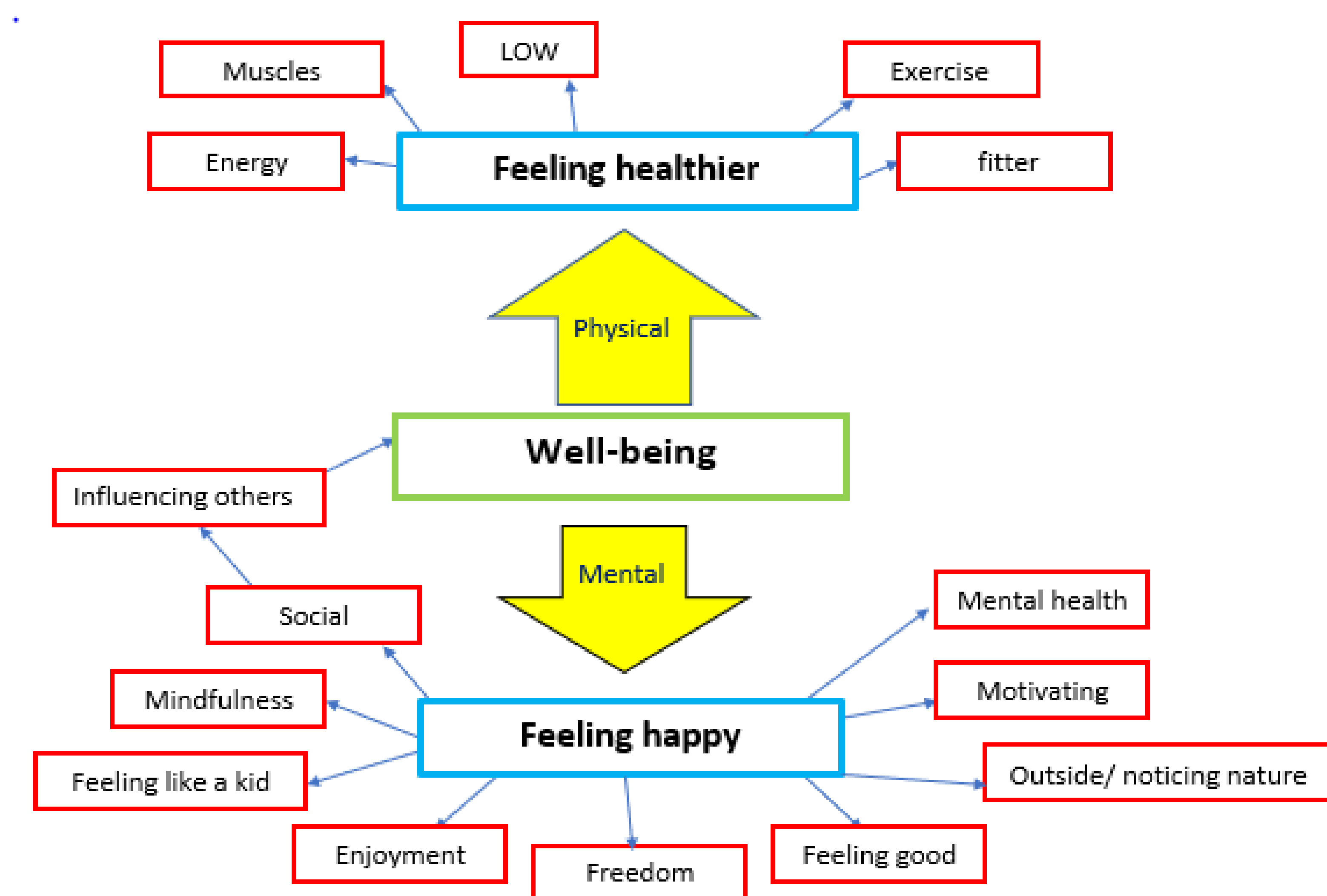
Mixed Methods approach

- 20 participants (BMI between 25-50, inactive, drove to work regularly)
- 12 weeks
- Physical health assessments
- Bicycle safety workshop
- Survey tools
 - *RAND: Measures of Quality of Life short form
 - *Subjective Happiness Scale
 - *DASS 21
 - *Active Australia Survey (eight questions)
- Semi structured interviews



Results

- Mental health benefits (feeling happy, decreased levels of stress, depression and anxiety)
- Increased levels of physical activity (high use - increased by 16hrs 54min/w; low use – increased by 7hrs 40 min/w)
- Influenced family and friends (thereby influencing mental health of others)



Conclusions

Local and national campaigns are needed to encourage e-bike use as an alternate form of transport. A twofold effect: public health would improve, and carbon emissions would be reduced.

References

- Bourne, J., Page, A., Leary, S., Andrews, R., England, C., & Cooper, A. (2019). Electrically assisted cycling for individuals with type 2 diabetes mellitus: Protocol for a pilot randomized controlled trial. *Pilot and Feasibility Studies*, 5(1), 1-13.
- Langford, Cherry, Bassett, Fitzhugh, & Dhakal. (2017). Comparing physical activity of pedal assist electric bikes with walking and conventional bicycles. *Journal of Transport & Health*, 6, 463473.