Urban Cycling Project (CityStudio)

Investigating the Influences for Cycling Behaviour in Older Adults

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The purpose of this study is to conduct semi-structured interviews with seniors in the Greater Vancouver area in order to gain insight how the city can improve existing bike routes to promote and increase the use.

Cycling infrastructure in healthy cities has the opportunity to improve the health of citizens1. Recreational or transportation-based cycling can be health-promoting[2]. Infrastructure and design can facilitate ridership in 'older adult' populations by controlling traffic speeds, creating safe street crossings, and more importantly creating bike routes which are completely separated from traffic[2].

The older adult population is increasing relative to the Canadian population as a whole[3], and it is important to address the specific needs of 'older adults' when designing and constructing cycling infrastructure for All Ages and Abilities (AAA). Our study takes a critical look at what the citizens view regarding the cycling infrastructure of Vancouver.

METHODS

The purpose of this study is to determine how older adults perceive bike routes with regards to safety and comfort. The methodology from this study follows a qualitative design. We are gathered qualitative information, data in the form of semi-structured interviews[4].

All participants were asked about the same broad topics, but focused more on some areas by asking follow up questions, which allowed us to capture context within the individual experiences[4].

We engaged with older adults, ages 65 and over, who reside in the Greater Vancouver area to discuss this topic in a face-to-face interview style survey. We collected data from different areas around Vancouver that were nearby major bike routes such as Creekside Community Center and UBC's BodyWorks gym.

A total of 5 participants, 4 male and 1 female, were interviewed through random sampling. Participants were then recorded with a voice recorder in order to collect data which was transcribed after the interview.

DATA COLLECTION AND ANALYSIS CHALLENGES:

Weather restrictions: Participants were reluctant to sit down and take part in the interview when they were wet and soaking from the rain.

Amount of participants: The opportunities to approach likely participants were few and far between.

Disinterest in the study: Some of the participants we approach did not like the idea of being recoded or having to sign the consent form.

FINDINGS & DISCUSSION

Data was transcribed verbatim, and initial broad codes were generated from the transcribed interviews to highlight the data[5]. Phase three solidified the overarching theme brought up by our research[5] – '**safety**' – due to the high recurrence of this theme in each of our interviews with participants and in most avenues of dialogue.

TWO KEY SUB-THEMES WERE BROUGHT UP UNDER THE OVERARCHING THEME OF 'SAFETY':

(1) Continuous routes – preferably those separated from other road users – were described as those which were the most effective at engaging participants in health-promotive physical activity along Vancouver's cycling infrastructure.

(2) All five participants voiced concerns surrounding the shared road use (pedestrians, cyclists, and motorists), and all five participants voiced concerns that all three road users may at times operate according to their own 'set' of rules.

Results from our thematic analysis identified safety concerns as the primary factor influencing adoption of cycling in older adult populations. The findings echo the research of Van Cauwenberg et al. (2018) who found that older adults were deterred to cycle due to factors such as safety, and younger cyclists were likely deterred by variables such as distance and duration – safety was of less concerns to younger riders[6].

The findings showed that 4/5 participants interviewed would refuse to ride on major thoroughfares and would consider route safety above all other factors when choosing to cycle for physical activity or active transport – older adults are likely not using much of the existing cycling infrastructure which is frequently or intermittently unprotected from traffic.
Our study faced several challenges. For example we were able only to recruit the bare minimum (5) of participants, yet our interviews with our participants were adequate in length – exceeding 20min, some as long as 30-40 minutes – providing us with information-rich data for our later analysis. Our research project might be conducted on a larger scale, and a larger scale project with more participants would provide significantly better insight into our research question: how to influence older adults to cycle for active transport or physical activity.

While the findings of our study are limited, due to the size of our participant sample, we believe that replicating the study on a larger scale would provide relevant insights for making Vancouver's cycling infrastructure friendlier to riders of all ages and abilities, including older adult cyclists.

RECOMMENDATIONS

1. An increased amount of physically separated bike lanes in order to ensure consistent safety of both riders and drivers. Additionally, we recommend the implementation of a resource, such as a map on the City of Vancouver website, not only to highlight the bike routes but also to provide information about the current level of security of the infrastructure.

2. Encourage health-promoting behaviours by creating programs for older adults to be incentivized through their active involvement in cycling and active transport. Similarly, programs can be created to provide incentive to individuals who complete cycling safety programs by remuneration or discounts at local bike shops.

3. Pamphlets outlining some common "rules of the road" should be offered to those purchasing a bicycle, similar to a booklet for receiving a driver's licence, or community workshops to inform the public of how to keep everyone safe on the road.

4. Another recommendation would be incentives for participating in formal safety refresher courses. Another aspect to this incentive would be discounted bikes and parts. This ties into the culture around cycling around the community and future outlook for alternative means of transportation.

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