Barriers to Bicycle Use in Inner City East Christchurch, a low-income community.

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Contents:

Page:

literature that supports this hypothesis. The majority of the existing literature is from a council or governmental perspective that analysed cycling infrastructure in low-income neighbourhoods compared to high-income neighbourhoods. The majority of existing literature also used census data and national travel survey data to base their analysis on (Pistoll and Goodman 2014; Taylor 2009; and Goodman 2013; Plaut 2005). When reviewing the literature on economic barriers to bicycle use at an individual or household level, it became clear that information about the economic barriers to cycling for low income communities was missing.

2.2. Barriers for youth and adolescents

Children represent a disadvantaged group in terms of accessibility. Ensuring that cycling is an accessible means even to children within areas of deprivation is crucial.

The review into barriers to cycling for young people found that as private vehicle use has increased, active modes of transport have decreased - w

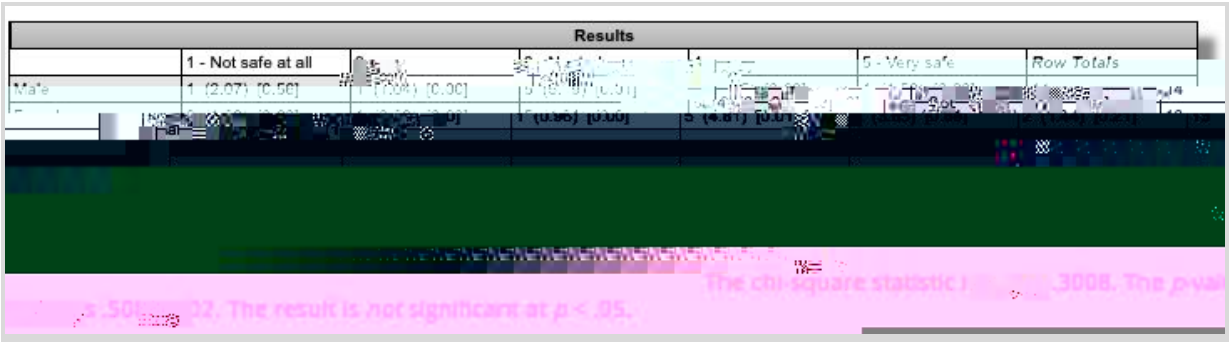
Results
1 - Not safe at all
5 - Very safe
Row Totals
Male
1 (2.07) [0.56]
5 (4.81) [0.00]

Table 2

4.2 Interview Results:

Three 10-15 minute interviews were conducted. Two out of three owned a bike, but all three rarely cycled. In these interviews, three themes emerged as key barriers or motivating factors to cycling. They were safety, security and fitness.

Safety

A female 23 year old interviewee said, “my shifts often end at 11pm, so I don’t want to ride my bike in the dark just in case something happens.” She brought up a spout of attacks to give context to her concern. Her concern about riding her bike at night time supported the idea that there are gender differences when it comes to feelings of safety. It also reflected the patterns we saw in our surveys.

Both male participants also raised concerns about safety. However, this was in relation to unsafe traffic rather than the possibility of assault, with a 29 year old male saying “... So long as the [expletive] cars don’t kill me.” and a 41 year old male saying “If the cycle paths were designed better so I didn’t have cars trying to cross me and park to my left, that’d be great.” These two comments show concern about inadequate infrastructure, and driving behaviour in the ICE.

Security

Two out of three interviewees expressed concern about crime rates in the neighbourhood, with the 29 year old male saying, “when I don’t have a bike, there’s no bike to steal!” and the 23 year old female retelling a story of her friend having her bike stolen in the area.

Health and fitness

All interviewees spoke about health and fitness as potential motivational factors that may make them want to bike more. One participant said he was time-poor due to work, but recognises the value of cycling: “I think it’d be a real good family activity, you knr ka2n

5. Discussion

5.1 Bike Ownership

Cycling needs to be understood in relation to the societies which it exists in (Cox et al., 2016). This study found that residents within the ICE struggle with bike ownership and accessibility. As shown in Figure 2, 60% of survey residents did not own a bike. Handy et al., (2008) found that bike ownership is a natural precursor to bicycle use, highlighting that ownership and availability are key factors in determining an individual's preferred mode of transport. On the basis of this study, there is no strong correlation between bike ownership and gender. Table 1 indicates that 8 women in our survey owned a bike, compared to 10 male survey respondents. Although this shows a difference, the correlation is not strong enough for us to make the claim based on our research that gender influences bike ownership.

This was rather surprising as when collating literature at the beginning of the research process, gender was continually highlighted as a component which greatly influenced cycling experiences (Shaw et al., 2020, Shirazi et al., 2019., Song et al, 2018). Handy et al., (2008), stated that women and men experience different barriers to cycling as a result of their societal stance. Women generally experience greater fears of their safety and well being while partaking in cycling. Handy et al., (2008), argues that women are more risk averse than men and tend to perceive more negative consequences of sharing the roads with vehicle traffic than men do. Drawing on past researchers and projects, it is clear that there is a relationship between gender and cycling experiences. It is reasonable to assume that the negative connotations women may have with cycling could influence bike ownership.

Our survey results show that regardless of gender, lack of bike ownership is an issue in the ICE. This study recommends Te Whare Roimata keep engaging with the community through their ICEcycles workshops to keep costs of bike maintenance to a minimum. As well as looking into developing a bike sharing network within the community similar to the ‘Next Bike’ initiative which runs within Christchurch CBD.

5.2 Attitudes

A person’s attitude towards cycling is a major factor to whether they cycle or not and how often (Unwin, N.C. 1995). It can encompass many things such as feelings of safety, environmental awareness, awareness of the health benefits and whether they enjoy cycling. Our results show a generally positive trend of attitudes towards cycling (Figure 3) even if the participant did not cycle. As Unwin, N.C. (1995) says, non-cyclists identify unpleasantness towards cycling whereas cyclists identify cheapness, health and enjoyment with cycling. So it is positive to see that the residents of the ICE have a generally positive attitude towards cycling. For Te Whare Roimata, this general positivity towards cycling is beneficial as it means that levels of engagement may be quite high if people are enabled to cycle.

5.3 Barriers to Cycling

We asked respondents to identify what hindered them from cycling. As displayed in Figure 4, safety is the greatest deterrent to cycling amongst those in the ICE. When investigating this in more depth, ‘safety’ can be broken down to: lack of ockaccycn

creating safe cycleways to enhance cyclist safety is the ‘highest ranked concern’ when designing cycling infrastructure.

As initially hypothesized, economic factors act as a barrier to cycling in the ICE. This is clear as many of the respondents indicated that cheaper bikes would encourage them to cycle more. Clearly identifying through the voices and experiences of respondents that cheaper, more affordable bikes would encourage people to cycle more, indicates that this would be a worthwhile area for further research in future projects.

6. Limitations

Throughout our research project we encountered many limitations that affect to

7. Future Research

This research has created a benchmark on bicycle use for residents of the Inner-City East. For future research it is essential to collect more data to establish a more accurate representation of the area. In terms of data collection, implementing focus groups would be beneficial. Focus groups could be held to get more qualitative data, as they allow for more in-depth conversations. This is important as it might unearth barriers that were not obvious to us as researchers. Another useful method would be to place surveys in prepaid envelopes in mailboxes, along with an incentive for completing the survey.

The surveys could have gone into more detail in each of the different themes we analysed in our literature reviews, for example, financial barriers or attitudes to!

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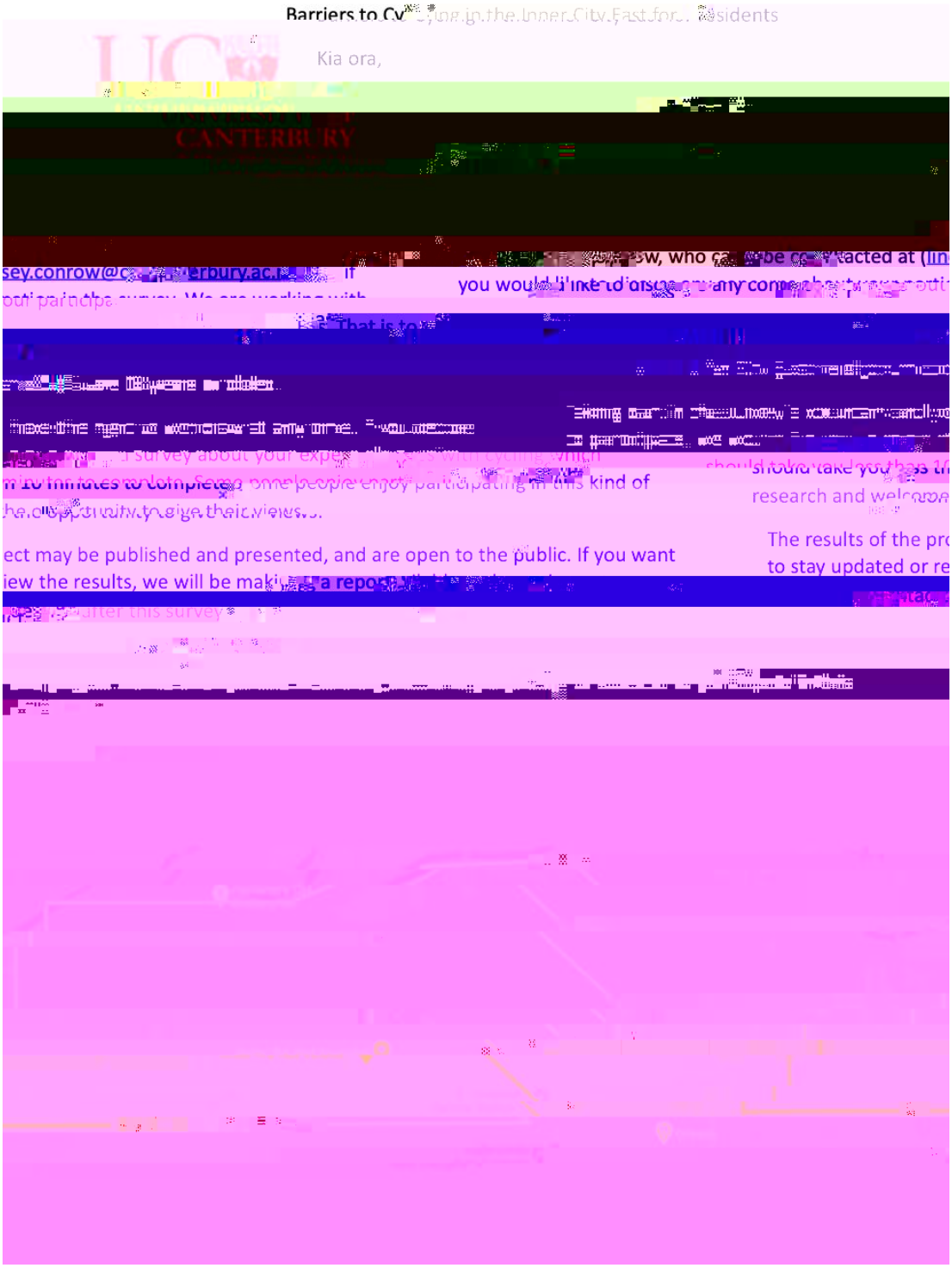
11. Appendices:

Appendix I - Copy of the Consent Form and Survey

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Appendix II - Copy of the poster