

Reported changes in cycling habits among older adults during the early months of the COVID-19 pandemic, New South Wales, Australia

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Keywords: cycling, older adults, participation, COVID-19.

1 INTRODUCTION

The impact of the 2020 COVID-19 pandemic and the associated public health measures enacted by governments globally had a significant impact on all aspects of human life including economic activity and mobility. One of the main public health measures designed to reduce the transmission of the SAR-CoV-2 virus have been the implementation of various levels of lockdowns that limited mobility and resulted in almost half of the world's population under some form of confinement [1]. Many governments, including in Australia, UK, and Norway, enacted flexible forms of lockdowns that allowed daily outdoor exercise, while adhering to safe physical distancing, in recognition of the role of physical activity in reducing the mental and physical consequences of confinement [2]. Australia saw first strict lockdown restrictions over March/April 2020 with progressive easing of restrictions during May and June 2020.

Emerging evidence from these countries has indicated that physical activity, particularly cycling, increased over the lockdown period and the following months as some restrictions were eased [3,4]. However, many have warned of a decline in physical activity with serious health consequences among older adults who were at a higher risk of morbidity and fatality associated with COVID-19 and were more likely to be confined to their homes for longer periods compared to younger age groups [5].

The aim of this study was to investigate the impact of COVID-19 pandemic on cycling activity among older adults aged 50 years and over in New South Wales (NSW), Australia during the early months of the COVID-19 pandemic.

2 METHODS

The cross-sectional survey is part of a larger study that investigated cycling safety and mobility in older people [6]. Older adults were recruited through various cycling and seniors' community organizations to complete an online survey during a two-month period between May and June 2020 which saw a progressive easing of restrictions imposed over March/April. Participants were included if they met the following criteria: aged 50 years and older, resident of New South Wales (NSW), and had cycled at least once during the previous 12 months.

3 RESULTS

Of the 1335 respondents, 53% reported a change in recreational cycling during the study period. More participants (34%) reported riding more for recreation purposes during the pandemic than riding less (18%) with a difference +16% (Table 1). However, this difference decreased with age with the highest reported by cyclists aged 50-64 (+17%) and the lowest by 80+ (-13%) with more reporting that they rode less during the study period (33%) than riding more (20%). Significantly more females reported cycling more for recreational purposes during the pandemic than males with net gains of 23% and 14% respectively. Increases in riding for recreational purposes during the study period were higher in unemployed participants (40%) compared to employed participants (19%). Regular riders (ride at least 3 days/week) were significantly more likely to report an increase in recreational cycling during the study period (net gain of 16%) compared to occasional cyclists (ride less than once a week) where more reported riding less for recreational purposes (Table 1).

The majority of participants reported no change in riding for commuting purposes (75%). More respondents reported riding less for commuting purposes (18%) compared to those who reported riding more (7%). Younger groups aged 50-64 were significantly more likely to report less riding for commuting compared to older cyclists. The same was observed for regular cyclists compared to occasional cyclists (Table 1).

Most respondents (61%) found riding during the pandemic to be safer than previously compared to only 8% who found it to be less safe. This proportion was higher in males (63%) compared to females (58%) and regular cyclists (64%) compared to occasional cyclists (48%).

Table 1: Changes in cycling activity in older adults and perception of safety during the COVID-19 pandemic by demographic and riding frequency.

	Recreational cycling			Commuter cycling			Safety Perceptions		
	Ride more	Ride less	Difference	Ride more	Ride less	Difference	Safer	Less safe	Difference
Age									
50-64	36.3%	18.91%	17.39%	8.59%	22.39%	-13.8%	62.83%	7.61%	55.22%
65-79	30.65%	16.58%	14.07%	3.02%	6.53%	-3.51%	58.04%	8.79%	49.25%
80+	20.0%	33.33%	-13.33%	13.33%	13.33%	0	53.33%	0%	53.33%
P value	0.04			<.001			0.26		
Gender									
Males	32.35%	18.56%	13.79%	6.09%	18.26%	-12.17%	62.47%	6.39%	56.08%
Females	40.35%	17.87%	22.48%	9.51%	15.85%	-6.34%	58.21%	11.53%	46.68%
P value	0.02			0.07			<.001		
Employment									
Employed	36.86	18.0%	18.86%	9.49%	24.82%	-15.33%	63.26%	6.08%	57.18%
Unemployed	52.08	12.5%	39.58%	NA	NA	NA	64.58%	14.58%	50%
Retired	28.08	19.44%	8.64%	NA	NA	NA	57.24%	10.37%	46.87
P value	<.001						0.009		
Frequency of riding per week									
Less than once	28.99%	33.33%	-4.34%	2.9%	8.7%	-5.8%	47.83%	10.14%	37.69%
1-2 days	33.33%	21.79%	11.54%	5.13%	10.9%	-5.77%	54.81%	11.54%	43.27%
At least 3 days	35.15	16.05%	19.1%	7.87%	20.36%	-12.49%	64.32%	6.51%	57.81%
P value	<.001			<.001			<.001		
Total	34.38%	18.35%	16.03%	6.97%	17.6%	-10.63%	61.3%	7.9%	53.4%

4 DISCUSSION AND CONCLUSIONS

Nearly double the number of participants aged 50 years and over reported riding more for recreation purposes during the early months of the pandemic compared to riding less. This might be due to a combination of factors, including low traffic volumes and interim improvements to public space such as narrowing roads, closing lanes, as well as rolling out temporary cycleways implemented in NSW during the pandemic which is likely to have increased perceived safety among cyclists. Most respondents found riding during the pandemic to be safer than previously.

Significantly more women increased their recreational cycling than men. This might be due to anecdotal evidence of increasing number of women taking their children going on rides with during the pandemic but might also be related to women being more sensitive to issues about safety, inadequate cycling infrastructure and interaction with other motorists than males.

This overall observed improvement in recreational cycling during the early months of the pandemic declined with age with those aged 80+ reporting an actual decrease in activity. This calls for public health programs to support those in this age group to maintain a healthy level of physical activity, particularly in the face of pandemic-related restrictions.

More respondents reported riding less for commuting purposes compared to those who reported riding more. While the survey period (May -June 2020) saw easing of restrictions imposed earlier in March in the state of NSW, people were still encouraged to work from home which is likely to be behind the decline in cycling for commuting purposes.

The pandemic offers an opportunity to reshape urban environments and build adequate cycling infrastructure that supports safe cycling as part of COVID recovery efforts.

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