Feasibility of a multi-component 9-week community-based cycling intervention in Glasgow (Cycle Nation)

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Background

- Cycling offers health, social and environmental benefits, yet levels are low in the UK.
- Cycling in Glasgow:
  - Only 7% of residents cycle 5 or more days a week
  - However, 44% want to cycle more [1]
- Need effective ways to overcome barriers & support cycling in the community
- GALLANT project (Glasgow As a Living Lab Accelerating Novel Transformation) provided the opportunity to adapt and test the Cycle Nation programme in Glasgow communities[2,3,4]





1, Walking & Cycling Index 2023, Glasgow, Sustrans
2, Logan et al. 2023, https://doi.org/10.3389/fspor.2023.1168357;
3, Connell et al, 2022, doi: 10.3389/fspor.2022.857554;
4, Kelly et al. 2020, doi:10.1136/ bjsports-2019-101447

BRITISH CYCLING | HSBC UK

cycle nation

MCRactive

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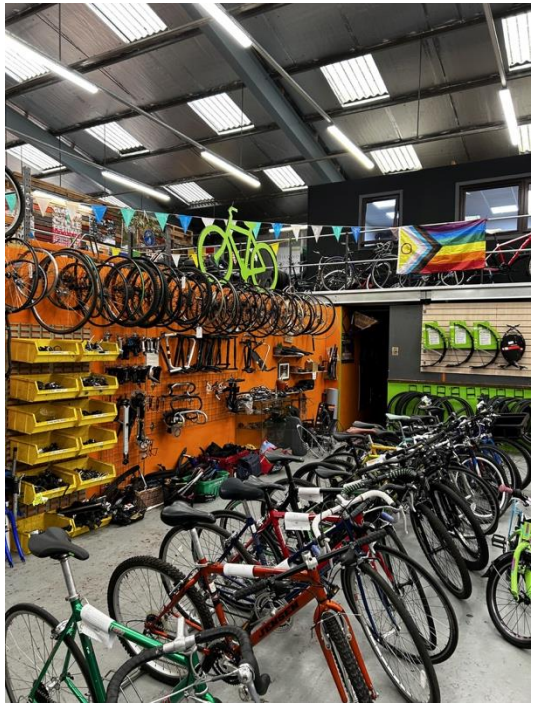
Cycle Nation Project



Cycle Nation programme comprises:

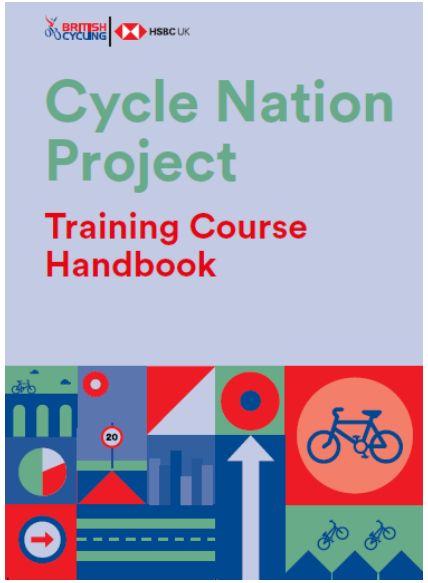
Access to bike & equipment + 9-week group-based programme delivered by trained facilitators + Participant handbook + Peer support



Week 1
Week 2
Week 3
Week 4
Week 5
Week 6
Week 7
Week 8
Week 9

Essential components

- Technique & skills
- Goal setting
- Road safety
- Bike maintenance
- Route planning



Two previous successful pilot studies of Cycle Nation

Workplace-intervention with HSBC-UK staff



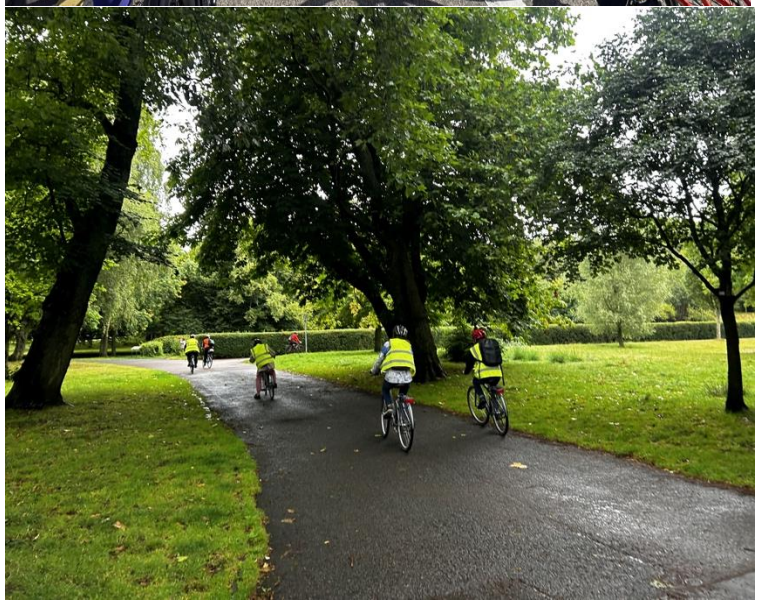
Cycling increased by 3 rides and 43 minutes per week

Adapted as a community-intervention with South Asian women in Manchester



Cycling increased by 3 rides and 89 minutes per week





Study aim

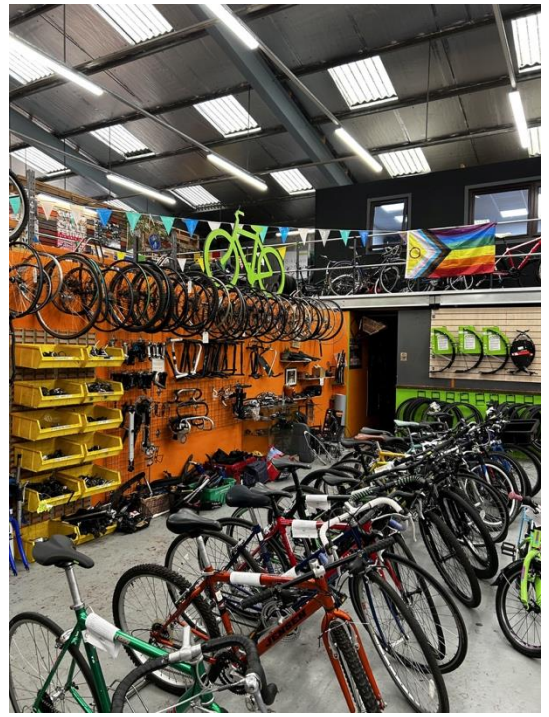
- The aim of this project is to assess the feasibility of a nine-week group community-based intervention (Cycle Nation) to support adults to cycle more in community settings across Glasgow.

Methods
Participants & delivery in Glasgow

Participants: Adult residents living in Glasgow who used to cycle but do not anymore/regularly

Programme delivery:

- Delivered by trained facilitators from Bike for Good
- Groups of up to 8-10 participants
- Participants received either:
  1) free bike (up to value of £150)
  2) three months free ebike loan
  3) free servicing of their own bike
- Whatsapp group



Methods
Data Collection

Recruitment & retention

Self-report baseline & post-programme questionnaires

- Cycling (Number of journeys & time cycling per week)
- Other transport (private car, taxi, public transport, walking)
- Perceived safety on roads
- Cycling confidence
- Motivation to cycle
- Self-esteem
- Vitality

Observations of sessions

Post-programme interviews with participants and facilitators

Data Analysis

- Descriptive analysis (questionnaire) & thematic analysis (qualitative)

Results
Participant recruitment

Programme Completion

- n=32 started
- n=27 completed (84%) (n=2 signposted, n=3 dropped out)

Demographic	
Gender	Female: n=20 Male: n=5 Non-binary/Third gender: n=2
Age	Mean: 39.6 years Range: n=24–69 years
Ethnicity	White: n=19 Asian: n=3 African: n=1
Highest Qualification	University Degree: n=17 Highers/A-level: n=3 GCSE/Intermediate: n=1 Other: n=2

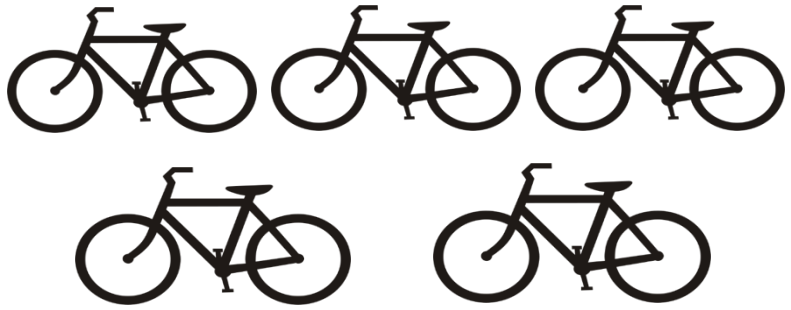
Equipment uptake

Free bike most popular, with e-bike loan least

Results: Questionnaires

Cycling levels:

+5.2 rides



+144.3 minutes



Leisure Cycling:
+2 journeys per participant
+88 minutes of leisure cycling

Commuting Cycling:
+1.8 journeys
+38.4 minutes

Errands:
+1.4 journeys
+17.8 minutes

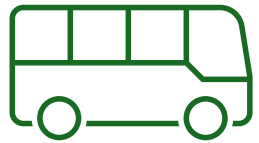
Results: Questionnaires



Private car usage decreased by:
-1 journey &
-35.6 minutes



Walking decreased by:
-1.7 journeys &
-27.8 minutes



Public transport usage decreased by:
-0.42 journeys &
-71.29 minutes



Cycling confidence increased by:
+8.96 points
(from 17.7 to 26.7)



Self-esteem decreased by:
-0.4 points
(from 23.5 to 23.1)



Vitality score increased by:
+1.41 points
(from 22.07 to 23.5)

Preliminary qualitative results

Being Given a Bike

- Receiving a bike removed barriers:

"The fact that the bike was provided… was absolutely brilliant."

"To have assistance to access a cycle… that just seemed absolutely perfect."

- It led to daily use and lifestyle change:

"Once I got my own bike, I was on it every day."

- E-bike users did not like the bikes loaned:

"… it was heavy and hard to manage."

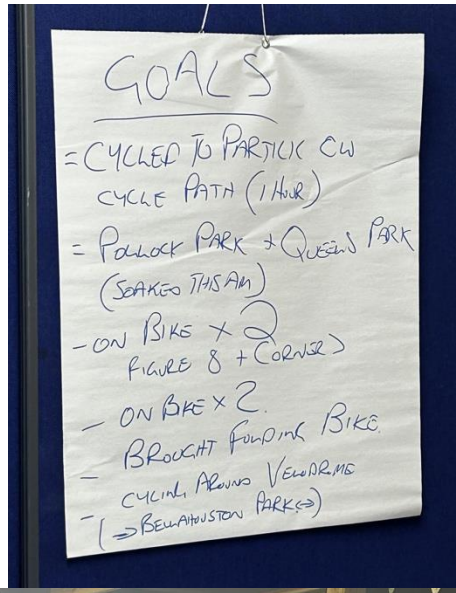


Preliminary qualitative results

Programme Manual

- Clear, visual, and practical:

"Well set out with lots of graphics… I kept it in my bike bag for reference."



Goal Setting & Accountability

- Weekly goals encouraged reflection & progress:

"It helped me think about how I travelled… and what I could do differently."

Bike Maintenance

Maintenance sessions built practical confidence:
"I went home and fixed the cable, tightened the brakes, readjusted the gears… I don't know if I would've had the confidence without the course."



Preliminary qualitative results

Group Experience

- Group learning was highly valued:

"There was a consensus, camaraderie… it was really encouraging."

- Challenging when others had more advanced skills:

"I felt like I was holding everybody back… like the worst in the class."

Facilitators

- Praised for their encouragement & expertise:

"I would've given up if they hadn't encouraged me to keep going."
"They made me feel like I could do things I thought I couldn't."



Preliminary qualitative results



Programme Structure

- Nine-week duration was ideal:

"It wasn't too short, it wasn't too long."

- Practical sessions were well-paced:

"It moved at a pace that was comfortable for everyone."



WhatsApp Group

- Enabled informal communication and peer support:

"It was useful to share tips… like lights or good routes."

Preliminary qualitative results

Night-Time Sessions

- Limited visibility affected confidence and learning:

"Doing it in the dark… it's a complete non-starter for me."

- Some participants valued learning to ride in the dark, as able to handle real-world challenges





Missed Content & Continuity

- Missing key sessions led to gaps in learning:

"I missed the gears session… and I still don't feel confident using them."

Preliminary qualitative results

Learning, Confidence & Motivation

- Empowered participants to regain confidence & independence:

"I never thought I'd be able to cycle… but now I'm thinking about cycling to work."

"I hadn't been out for 10 years on a bike in the city… now I'm practically cycling every single day."





Physical & mental wellbeing

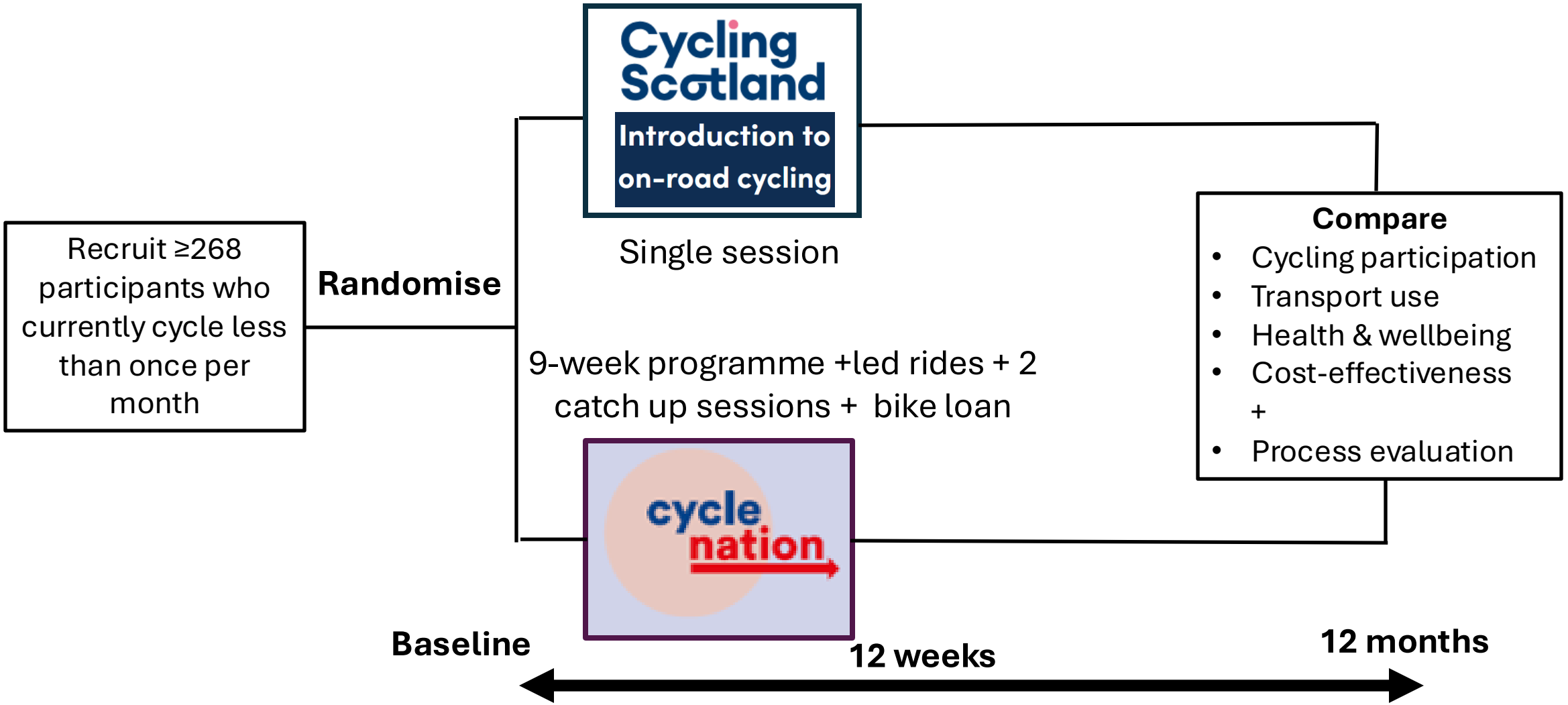
- Cycling supported mental health & physical wellbeing:

"At first, my legs were sore… but after a few weeks, I was going up hills without getting out of breath."

In progress...



Cycle Nation Randomised Controlled Trial



Thank you for listening

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