Cycling Without Age: An Australian residential aged care home experience

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Abstract
Objective: Cycling Without Age (CWA) involves taking residents on outdoor trishaw (electric bicycle) rides driven by trained ‘pilots’. This study explored the CWA experience from the perspective of residents and family members, staff and volunteer pilots from a residential aged care home in Queensland, Australia.

Methods: A qualitative descriptive design was used. Interviews were conducted with 21 participants. Transcripts were analysed thematically, with the interview questions determining a priori categories followed by coding of central themes.

Results: Several themes emerged. For residents, seeing familiar places prompted reminiscences, and being outdoors elicited positive emotions. Family members reported CWA was a novel way to be with their loved one. Enabling residents to have time away from the care home with community contact was rewarding for pilots. Staff noted improvement in residents’ mood post-ride, however, rides needed to be scheduled to fit in with their workflow.

Conclusions: Cycling Without Age was perceived to offer a unique and meaningful experience, with benefits including sharing stories, being outside, and feeling part of the community.

KEYWORDS
bicycling, care home, cycling without age, mood
1  |  INTRODUCTION

Residential aged care homes have been criticised for their routinised and task-oriented focus, with physical care prioritised over psychosocial care needs. Residents, family members and staff have called for activities that facilitate engagement and provide meaningful social participation, particularly for those living with dementia. Residents have also expressed interest in activities that take place outside the care home, such as excursions.

Cycling Without Age (CWA) offers such opportunities. Cycling Without Age involves taking residents on outdoor trishaw rides. Specially designed, electrically powered trishaws can seat two people (riders) driven by trained volunteers or care home staff (pilots). Established in Denmark in 2012, there are over 35,000 trained pilots riding 3500 trishaws in 50 countries. The ethos of this not-for-profit organisation is to give older people ‘an opportunity to remain an active part of society and the local community’.

Cycling Without Age has five guiding principles: generosity, slowness, storytelling, relationships and without age. Taking older adults and/or people with mobility limitations on a bike ride is a simple act of kindness and generosity. The leisurely nature of a ride allows the pilot and passengers to stop and chat with passers-by, enjoy the environment and be ‘present in the moment’. Older people have a lifetime of stories to share which may be prompted by the sights, sounds and smells experienced during the ride. CWA fosters social connections and builds relationships between everyone involved: passengers, pilots and family members. ‘Without age’ considers the fact that a person of any age can still enjoy life; hence CWA focuses on the positive context of ageing.

Despite a global presence, there are few published evaluations. Gray and Gow, Gow, Bell and Gray and Gow, Bell and Bigger evaluated CWA Falkirk, Scotland. Well-being and mood were measured on a ‘ride day’ (pre- and post-ride) versus a ‘no ride day’; with higher well-being and mood scores immediately after the ride and when post-scores on the ‘no ride day’ and ‘ride day’ were compared. Analyses of video recordings from 12 rides showed mostly positive expressions (happiness, interest and amusement) and engagement with the surroundings and other people. Interviews with residents, care home workers, pilots and family members regarding their experience or perceptions of CWA Falkirk identified enjoyment of nature and the ride, interactions with passers-by and the pilot, and mood elevation. McNeil and Westphal’s findings regarding a program in Wisconsin, USA, corroborated the findings of Gow et al., but also noted that residents reminisced about sights along the route.

In 2018, a community member established a Townsville (Queensland) Chapter and approached a care home to be the ‘community partner’ for a CWA program. The aim of this study was to explore the experience of CWA from the perspective of riders (residents and their family members), care home staff and volunteer pilots.

2  |  METHODS

2.1  |  Study design and setting

A qualitative descriptive approach allowed the experiences of residents, family and pilots/staff to be understood from their perspectives. The study was conducted in 2019 at a 102-bed care home in Townsville, Queensland. The CWA Chapter Affiliate (CA) obtained permission from the Regional Transport department, local council and police for trishaw rides on a 2.2 km seaside promenade (The Strand) which was easily accessible and completely off-road. The Strand is known for its beaches, picnic spots and restaurants. The wide path is shared by cyclists and pedestrians.

2.2  |  Participants

The care home’s Lifestyle Coordinator, who was also the on-site CWA coordinator, recruited pilots from existing volunteers, staff members and residents’ family members. The CWA CA also recruited pilots from the local cycling community. To participate, residents needed to be able to sit upright in the trishaw without support. Cognitive impairment did not preclude involvement. Residents could go out in the trishaw without participating in the associated research project.
Eligible participants for the research study included:

- residents who had taken at least one ride in the trishaw, with the cognitive capacity to provide informed written consent and participate in an interview;
- family members who had accompanied their loved one on a ride;
- pilots who had taken residents out on a trishaw ride; and
- care home staff who had assisted at least one resident to participate.

The Lifestyle Coordinator identified residents, pilots and family members to participate in the study; and prepared a list of staff members who had assisted residents to participate. She provided potential participants with a plain language statement describing the study. A research team member (Author 1) contacted individuals and obtained written informed consent for an interview.

Before each resident interview, Author 1 used a cognitive capacity checklist to determine whether the person understood the nature of the research and showed the ability to make a reasoned choice. When these criteria were met, written consent was obtained.

Ethics approval was granted by the Bolton Clarke Human Research Ethics Committee (Project number 202).

### 2.3 Procedure

Pilots attended a three-hour training program at the care home. After watching videos about the CWA program and dementia care principles, they practised riding the trishaw under the supervision of the CA. To complete the training, each pilot took the CA out for a ride and demonstrated that they could operate the trishaw safely.

Trishaw rides were available 6 days per week (Monday to Saturday). The rides took place in the early morning, mid-afternoon or evening. In accordance with person-centred care principles, the resident was visited by the CWA coordinator before each ride to confirm participation.

### 2.4 Data collection

Resident demographic and clinical data were obtained from the home’s database, including age, gender, cognitive impairment (Psychogeriatric Assessment Scale [PAS] score), mobility and number of health conditions. Information about each ride (date, time of day, duration) was recorded in a logbook by the CWA coordinator, while any changes in pilots were noted by study staff.

To explore the CWA experience from the perspective of residents and family members, care home staff and pilots, semistructured face-to-face or telephone interviews were conducted by an experienced qualitative researcher (Author 1). Individual resident interviews were conducted face-to-face in their room. Family members, pilots and staff were offered either a face-to-face interview or a telephone interview. It was anticipated that 16–24 interviews would need to be completed to reach saturation. The interview guides are provided in the Appendix 1. To align with previous CWA qualitative research, questions were formulated to capture the CWA experience from each stakeholder’s perspective.

### 2.5 Data analysis

Descriptive analysis was undertaken of the quantitative demographic and logbook data. The interviews were audio-taped and professionally transcribed verbatim; then analysed thematically, to identify, analyse and report patterns within the data to find repeated patterns of meaning. One researcher (Author 1) read all participant transcripts and open-coded sections with short phrases to describe the central themes. A second researcher (Author 3) reviewed and coded the resident transcripts, while a third researcher (Author 2) reviewed and coded the family, pilot and staff transcripts. Codes were then grouped into themes and discussed, with discrepancies resolved by the research team. Data analysis was supported by NVivo software (version 11).

### 3 RESULTS

#### 3.1 Participants and trishaw rides

Of the 102 residents within the care home, 87 residents (85%) were able to participate in CWA. Thirty of these residents (35%) chose to have a ride on the trishaw. These residents took a total of 216 rides over the study period of 12 weeks. Each of the 10 participants who consented to take part in the research went out once a week (120 rides in total). The other 20 residents took 96 rides (median = 5, range 1–10). The median ride duration was 90 minutes (range 60–120 min), and most rides took place early morning or late afternoon. Five pilots were recruited for CWA and all were retained for the entire research period. Four pilots volunteered 1 day/week and one pilot volunteered 2 days/week.

Of the 30 residents involved in the CWA program, 11 residents did not meet the eligibility criteria to participate in the research study, and five residents had died. Of the
14 residents who met the eligibility criteria, 10 individuals were interviewed and four declined to be interviewed because they could not recall their trishaw ride.

Characteristics of research participants are presented in Table 1. The median age of participants was 84.3 years (range 65–102 years), and eight were women. The median PAS score for the group was 7.2 (range 3–12), where a score between four and nine indicates mild cognitive impairment. Only one resident did not require a mobility aid for ambulation.

In addition to the residents outlined above, the six family members who had participated with their loved one and the five pilots were approached for an interview. Two family members participated and were interviewed by telephone. Three pilots agreed to an interview; one was conducted face-to-face and two by phone. Four of the six staff interviews were face-to-face, and two were interviewed by phone. A total of 21 participants were interviewed (Table 2) and data saturation was achieved.

### CWA experience

Four themes emerged from the interview data which represented eliciting memories and new experiences, giving rise to positive emotions, interacting with the community and a break from daily routine.

#### Eliciting memories and new experiences

Riding along The Strand reconnected them with familiar places from their past, ‘oh, the memories [it] brought back’ (R10), that they had not visited for some time, ‘those places I haven’t been to for 30 or 40 years’ (R01).

For family members, the program provided a new and different activity to share together.

> It was great. Nice. You sit there and talk to Dad and observe things and mention things that we saw. (F01)

One family member’s expectation of the ride was ‘just to be with Mum and get to do something together that we wouldn’t normally get to do.’ (F02).

The novelty of CWA and the trishaw also extended to the volunteer pilots,

> it’s something new, it’s the first one in Queensland, ... I feel good doing something like that, that’s a new thing. (P02)

#### Giving rise to positive emotions

Each resident made at least one remark related to stimulation, interest, surprise, relaxation or enjoyment. Of all the positive emotions, happiness was expressed most frequently; ‘you feel good...mentally it makes you feel happy’ (R05). The pilots, family members and the care home staff also noticed the positive emotions experienced by residents.

> The expression on her face, ... I can still remember her wearing a yellow dress, and having her bow and hat on, and the biggest smile on her face. (P04)

This included a complete change in their demeanour once the ride commenced.

Before we left, [my mother] could barely keep her eyes open. Once we got out, she was wide awake. She was happy. She was waving. It just gave her a new lease on life. (F02)

For some participants, the positive emotions that the ride brought forth extended beyond the outing.

> But when he came back, he looked so great. He was really relaxed and just didn’t stop smiling for the rest of the afternoon. (S03)
Some participants’ enjoyment seemed to be sensory in origin, ‘...the fresh air and the sun, was lovely.’ (R04). For others, it was what they saw along the ride.

I especially enjoyed when we got very close to the ocean, and you could see right across. (R02)

For residents with dementia who could no longer verbally communicate, their enjoyment could still be perceived by the staff.

...she enjoyed what she was seeing. You could see by her face. Really happy. (S04)

An opportunity to leave the care home also appeared to contribute to positive feelings.

[The Lifestyle Coordinator] took her, and the photo that was taken, the look on her face was just... She just had this big smile on her face. That was the first time she’s been out in a really long time. (S03)

Not only did CWA elicit positive emotions from residents, family members and pilots also expressed enjoyment, satisfaction and feeling good.

[Resident’s name] daughter gave me a hug and a kiss, and was crying, and said it was the most beautiful thing she’d ever been on. (S01)

For volunteers, these feelings were related to their role as a trishaw pilot.

...it’s making the residents happy, making their day a bit better. I feel like I’m doing something good for the community or society.... (P02)

3.2.3 | Interacting with the broader community and ‘everyday life’

Residents and family members were eager to engage with people during the ride, including ‘high-fiving people...’ (F02). The pilots were happy to assist the residents to connect with members of the public.

They [the residents] like waving and talking to people. I’ve often stopped, and they’ve had a chat to other people. They like that. Like the interaction, the socialising thing. (P03)

Cycling Without Age brings residents in contact with the wider community. Residents and pilots commented on the opportunity to catch a glimpse of people’s everyday activities.

The amount of people jogging and the amount of people taking their dogs for walks and things like that. It was different, but it was quite good. (R01)

...they [residents] see The Strand, ... the water, and ... all the people and it gets them into normality. (P03)

One pilot recognised there was a sense of isolation in aged care. Their reason for volunteering was ‘...to offer the chance to be able to get outside and be in the community a little bit more. A bit more visible, a bit more engaged with people.’ (P01).

3.2.4 | Break from the daily routine

Most resident-centred care homes have a daily routine. CWA program offers residents a break from this routine.
Anything to get the residents out of their normal, everyday, monotonous routine is great. (S05)

The fact that CWA provides an opportunity for residents to be outside was viewed positively by both care staff and pilots.

It gets them out, like out of the building. Because a lot of them just are in a building constantly. (S03)

I just think it’s more of a social type thing, and they’re getting out and they’re seeing things, and they’re getting the fresh air. (P02)

3.3 | Drawbacks of CWA

Feedback on the trishaw experience from residents, family and pilots was predominantly positive. However, four residents mentioned concerns such as feeling a few bumps along the route, forgetting to bring sunglasses, being out after dark and not wanting to miss their evening meal. Suggestions from residents to improve the ride included varying the route taken and stopping along the way for refreshments. No concerns or suggestions were provided by family members or pilots.

Negative feedback from staff members related to the impact of CWA on their workflow. Logistics required for implementation of the program included scheduling the rides, communication with staff, and assistance from staff to help the residents in and out of the trishaw. Interviews with Personal Care Workers (PCWs) revealed a few challenges. For PCWs, the extra time needed to get the resident ready for an early outing impacted upon their morning work routine.

No, first thing in the morning is not really good...having to get them ready by that particular time doesn’t always fit in with what they do on the shift. (S02)

Communication between the CWA coordinator and PCWs was essential for the success of the program. The coordinator initially used the home’s appointment system to alert staff about the trishaw bookings. One staff member mentioned ‘we don’t always get time to read (this)’ (S02). Another PCW mentioned that sometimes they were not told in advance about a trishaw ride.

...a couple of times we haven’t been told until just before...we were told maybe 10 minutes beforehand. And so we were rushing around to get this resident ready to go. (S03)

To enhance communication, the coordinator came up with another strategy:

...when I do my rounds in the morning, I let them know. “Did you get in handover that so-and-so’s booked for the trishaw?” They always get them ready, but I’m glad I go around and tell [the care staff]. (S01)

For residents who mobilised using a walking frame, helping them in and out of the trishaw was no different than other transfers done by staff:

(It) probably (took) just a little bit longer than transferring them to like an armchair or something. A few minutes. It’s not very long. (S03)

However, transferring residents from their wheelchair or their bed into the trishaw did add to the PCW workload:

It takes two of us off the floor if they [require] a hoist. If they are capable of walking themselves, it’s okay, it’s only one of us who is doing, but one down on the floor puts you behind. (S04)

4 | DISCUSSION

To our knowledge, this is the first Australian study to explore the CWA experience in a residential aged care setting. Interviews with care home residents, family members, staff and pilots confirmed that their experiences aligned with the CWA guiding principles. Residents were again part of community life observing everyday activities, including people walking their dogs, having a picnic or playing.

For residents, a trishaw ride elicited feelings of happiness and enjoyment, with family members, staff and pilots observing residents smiling, laughing and waving. Residents, family members and pilots agreed that CWA provided a unique opportunity to interact with community members. Comments made by family members, pilots and staff highlighted the importance of CWA in offering a break from the daily care home routine and a different way of experiencing the outdoors.
Our findings, together with others,\textsuperscript{10,11} indicate that CWA is able to contribute to a meaningful daily life for residents including those living with dementia. McNiel and Westphal\textsuperscript{11} also reported that CWA provided opportunities for reminiscence as participants rode through their old neighbourhoods. Aligned with the Falkirk evaluation,\textsuperscript{10} family member participants commented that the ride provided a new way to spend time with their loved one.

McNiel and Westphal\textsuperscript{11} found that pilots noticed changes in residents’ ‘frame of mind’ during and following the ride. Our pilots made similar observations. Staff and family members also saw positive changes in residents’ in our study, which concurred with Gow et al.’s findings.\textsuperscript{10} Our resident participants reported feeling happy during the ride and feeling ‘better’ afterwards. Gray and Gow\textsuperscript{8} presented similar findings such as positive facial expressions captured on video and immediate improvement in their participants’ well-being and mood measured postride. Enjoyment and engagement underpin meaningful activities.\textsuperscript{1}

Compared with the other qualitative studies, a theme that emerged more strongly from our interviews was the positive change in residents’ everyday routine provided by CWA. Other research examining the social aspects of care highlights the monotony of the care home environment,\textsuperscript{1} which was noted by staff and pilots in our study. People mentioned ‘getting out’ of the care home and how much that benefitted them or the residents, especially as it was time spent outside. Residents who participated in the Falkirk evaluation mentioned the ‘sense of freedom’ they felt during their trishaw ride.\textsuperscript{10} Across the three studies, a clear advantage of CWA, over other excursions from the care home, was enabling residents to enjoy the natural elements; hearing birds singing, seeing the ocean, breathing fresh air and feeling the warmth of the sun.\textsuperscript{10,11}

Reporting on the drawbacks of CWA sets this study apart from previous evaluations. In contrast to the other participant groups, only care staff made negative remarks about the program. During busy periods, it could be challenging to get residents ready for a trishaw ride. Thus, integrating the CWA program into the care home workflow requires careful planning. Pleasingly, when the Lifestyle Coordinator provided extra notification of scheduled rides, staff were able to adapt their routine. The fact that CWA has continued at this care home indicates that these initial barriers raised by staff have been overcome.

4.1 | Strengths and limitations

Capturing the perspectives of staff and family members in addition to those of residents and pilots was a strength; their insights corroborated the residents’ and pilots’ experiences. However, a limitation of the sample is that, of the 21 participants, only two were family members and three were pilots. Another limitation is that only residents with capacity to provide informed consent were interviewed. The findings are from one CWA program in one area, so may not be generalisable to other Australian programs; further research involving CWA Chapters from other parts of the country and larger numbers of participants is required.

5 | CONCLUSIONS

This was the first study of CWA in Australia. Benefits included enjoying the natural environment away from the care home, reminiscing and feeling part of the wider community. Similar to qualitative studies conducted in the United States and the United Kingdom, our results show that a CWA program provides positive and meaningful experiences for residents, family members and pilots. Good communication between the Lifestyle and care teams, and attending to scheduling, overcomes barriers to implementation. CWA could be an effective non-pharmacological treatment for depression and dementia. Future research should further investigate the potential for CWA to improve residents’ mood/affect and reduce atypical behaviours of those living with dementia.

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CONFLICTS OF INTEREST

No conflicts of interest declared.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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APPENDIX 1

Interview guides/questions

Interview schedule for residents and family members

1. Did you enjoy the ride? If not, why not?
2. What was the best part of the ride?
3. Where you concerned about any aspect of the ride?
4. Have you noticed any changes within yourself (or your family member) since the ride?
5. Would you like to do it again?
6. What would make the ride even better?

Interview schedule for staff and pilots

1. Overall, do you think the residents have benefited from the rides? If so, how?
2. If you feel that the residents have not benefited, can you explain why not?
3. What do you feel were the best or most enjoyable parts of the ride for the residents?
4. What has your experience been (pilots)?
5. Were there any concerns about the rides?
6. Have you noticed any changes in any of the residents since the rides?
7. For people living with dementia, did you notice anything particular about them before/during/after the rides?
8. How much time was required to help the residents prepare for the ride (staff)?
9. What were the challenges?