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# Older adults' adaptations to life events: a mobility perspective

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## Abstract

Mobility research tends to focus on physical movement and experiences in later life; however, changes in older adult mobility over time remains underexplored. Furthermore, older adults typically experience many life events, some of which result from cognitive and physical decline, and many of which impact mobility. This article aims to explore how life events affect the mobility of older adults over time. We conducted in-depth interviews with 22 older adults aged 55 years and over from Lancashire, United Kingdom. Of these participants, eight lived with memory problems. The findings show that both anticipated and unexpected life events play a profound role in the participants' mobility over time. Retirement, long-term illness and age-related illness were examples of anticipated life events, while the death of a loved one and developing memory problems were examples of unexpected life events. In both cases, participants' made external adaptations, such as moving home, or internal adaptations, such as self-awareness. The findings also emphasise the layered nature of life events and adaptations playing a role in the participants' mobility. Additionally, life events such as developing memory problems showed a domino effect, triggering further life events and adaptations which impacted the participants' mobility. This article emphasises how transition periods can occur before or after a life event, showing that adaptations can be pre-emptive to a life event. Our article contributes to calls for internal adaptations to be fully incorporated into age-related policy and also for age-related policy to be more inclusive for older adults who experience memory problems and dementia.

**Keywords:** mobility; older adults; life events; adaptations; qualitative research; United Kingdom

## Introduction

With population ageing globally, older adult mobility remains at the forefront of both academic and societal interest due to the insights into mobility and the potential issues and opportunities that may arise with living in an ageing society (Harvey

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and Thurnwald, 2009; Ziegler and Schwanen, 2011; World Health Organization, 2015; Lewis *et al.*, 2022). Generally, mobility is positively associated with being active, socially connected and participating in society, contributing to an individuals' wellbeing (Nordbakke and Schwanen, 2014). Yet, older adult mobility has frequently been discussed in relation to physical mobility and actual movement, focusing on movement impediments (Mollenkopf *et al.*, 2011; Ziegler and Schwanen, 2011). Increasingly, academics have shown how individuals perceive their mobility, understand it and embody it (Cresswell, 2010; Schwanen and Ziegler, 2011). Mobility has an instrumental value: it allows people to get to places, which foregrounds mobility as a means to achieve other goals. For instance, it can contribute to an individual's sense of self, identity and independence (Goins *et al.*, 2014; Siren, 2021) and supports their autonomy and social inclusion (Mollenkopf *et al.*, 2004; Victor *et al.*, 2005; Siren, 2021). Equally, mobility can be an objective in itself, with the embodied nature of mobility receiving increased attention in academia, especially with the proliferation of the new mobilities paradigm (Grenier *et al.*, 2019). Consequently, considering it both as a means and an end emphasises the dynamic nature of mobility throughout life, particularly in later life.

While the individual perceptions and experiences of mobility in later life are increasingly studied, the temporal aspects of older adult mobility remain underexplored (Franke *et al.*, 2017; Greene and Rau, 2018; Freiberger *et al.*, 2020; Meijering, 2021; Sturge *et al.*, 2021a). Understanding this temporality in social gerontology is important because it suggests that older adult mobility is not static but an ongoing, dynamic experience and process that can vary over time. Correspondingly, the dynamism of the older adults' mobility over time is partly facilitated by changes or life events encountered by older adults and the adaptations older adults implement in response. Furthermore, the dynamism of older adult mobility emphasises the importance of considering adaptations to changes in the lifecourse, especially so in later life when physical and mental decline, as a result of the ageing process, make changes more difficult to adapt to. Both changes experienced and adaptations made play critical roles in the mobility of older adults. Taking a lifecourse perspective, specifically focusing on life events and transitions, this article aims to explore how life events affect the mobility of older adults over time.

### Older adult mobility and the lifecourse perspective

The 'new mobilities paradigm' ushered in a more holistic and interconnected way of understanding mobility, leading to increased attention being applied to people's experience of mobility (Sheller and Urry, 2006). For example, Cresswell (2006) distinguished between movement and mobility, where mobility goes beyond the physical, taking into account the perspective and experiences of individuals. Elaborating on this distinction, Cresswell (2010) argued that there are three aspects of mobility: movement, representation and practice. Movement is the tangible act of moving, such as walking from home to a shop. Representations of mobility play various roles in the cultural norms, relationships and power dynamics in different socio-cultural contexts (Kaufman, 2002; Cresswell, 2006; Frello, 2008; Freiberger *et al.*, 2020). For example, walking has been imbued with many meanings, from conformity to rebellion in various representations (Solnit, 2000). Mobility's embodied

practice refers to how each person enacts and experiences mobility (Schwanen and Ziegler, 2011; Grenier *et al.*, 2019). For instance, people join walking groups to benefit from the therapeutic qualities walking can entail (Doughty, 2013; Bell *et al.*, 2015). The example of walking illustrates how the three aspects come together to present a holistic understanding of mobility and how mobility provides more than just movement. Walking and other forms of movement provide opportunities to develop oneself, interact with others and contribute to one's mobility, especially in later life (Meijering *et al.*, 2019).

Looking at mobility representation and practice, the meta-synthesis on perceptions of mobility in later life of Goins *et al.* (2014) emphasises that the meaning and value of mobility is rooted in personal experience. For instance, May *et al.* (2010), Skymne *et al.* (2012) and Larsen *et al.* (2019) found that the experience of becoming assistive device users had a positive role in the mobility and independence of those involved. These articles emphasise the importance of mobility and the ways individuals adapt to impairments that put their mobility at risk. However, to understand mobility over time, points of potential change need to be understood, which can be achieved by studying mobility in relation to life events.

The lifecourse perspective provides a framework to reflect on how life events and transitions are experienced over time and the role such events have in mobility in later life. This approach considers individuals' life histories and future trajectories (Elder *et al.*, 2003). Furthermore, it considers life events to be significant occurrences in an individual's life that can cause changes in the long term, such as starting a new job and retiring (Settersten, 2003; Hutchison, 2011, 2019). In later life, this may also include physical and cognitive impairments, such as suffering falls or developing memory problems, respectively. According to Hutchison (2011), the term life event refers to the happening itself and not the transition that will occur due to the happening. They suggest that following a life event, there is a transition, representing a period where the effects of the life event are intensely experienced. Within these transition periods, mobility can be affected (Bevan *et al.*, 2017). In later life, Croucher *et al.* (2021) found several common life events that many older adults experience, such as stopping work due to retirement, redundancy, illness or disability, and moving house. This shows that later life is a period in which various life events may happen and that these life events often overlap. Thus, using the lifecourse perspective as a theoretical framework, this article further unpacks the temporal dimension of everyday mobility in later life.

## Methodology

### *Study population and context*

Data collection for this article was undertaken in Lancashire, north-west England, in autumn 2019. Within Lancashire, the primary data collection sites were Lancaster and its surrounding area, Morecambe and Ormskirk.

Lancaster, Morecambe and Ormskirk are relatively small settlements situated in a more rural environment, in contrast to more urbanised areas in Lancashire such as Preston, Blackburn and Manchester. Driving is an essential mode of travelling for many as public transport does not always accommodate remote and more

rural parts. There are several Areas of Outstanding Natural Beauty, such as Arnsdale and Silverdale and the Forest of Bowland (Landscapes for Life, 2020). The Lancashire area has a growing older population, evidenced in that the over-65 population saw a higher annual growth rate of 1.76 per cent than those aged 0–17 (0.5%) and 18–64 (0.6%) in the Lancashire-12 area, which comprises the 12 local authorities (including Lancaster, Morecambe and Ormskirk) that fall within the Lancashire County Council administrative boundary (Lancashire County Council, 2020).

### **Methods of data collection**

We used two methods in this research to get insight into mobility as subjectively experienced by the participants: activity diaries and in-depth interviews. The primary role of the activity diaries was to inform the questions for the in-depth interview about the participants' daily routines. In addition, we conducted in-depth interviews within days of completing the eight-day activity diary period to gain a deeper insight into the participants' mobility. The 22 in-depth interviews were semi-structured and were on average 71 minutes in length, allowing for freedom to explore and go deeper into topics introduced by the participants. The interview guide covered questions about past, present and future life events concerning mobility. The interviews were recorded and transcribed verbatim by TAL, TO and an external transcriber.

### **Participant recruitment and characteristics**

We relied upon a gatekeeper approach to recruit participants through organisations and groups (Namageyo-Funa *et al.*, 2014). Several types of gatekeepers in the county of Lancashire were involved in this research, from coffee morning organisers to organisers of charities that focused on supporting those with memory problems. We used this recruitment technique to create rapport with the different organisations, which helped embed the researchers in this context. We also used snowball sampling by asking participants if they knew anyone who would like to participate and asking organisations for further connections (Naderifar *et al.*, 2017).

Our recruitment strategies resulted in a sample of 22 older adults who ranged in age from late fifties to early eighties. Table 1 shows the participants' key characteristics and their pseudonymised names. Participants with memory problems were accompanied by their care-givers during the interview, acting as a source of support for the participants. Only one participant with memory problems, Mr West, was interviewed alone.

### **Data analysis**

We employed thematic analysis to analyse our data (Clarke and Braun, 2014). To maintain rigour throughout the data analysis, we implemented an iterative inductive and deductive coding process through code creation, formulation, discussion and refinement (Hennink *et al.*, 2020). During this iterative process, TAL started with creating a thick description of the data. Then, he explored the codes in relation

**Table 1.** Participant characteristics

Participant (pseudonym)	Age	Marital status	Health status (where healthy refers to without memory problems or stroke)	Driver	Locally born (Lancashire county)	Coupled interview
Mr Adams (and Mrs Adams)	62	Married	With memory problems	Yes	No	Yes
Ms Brooks	73	Co-habiting	Healthy	Yes	Yes	No
Ms Foster	70	Single	Healthy	No	Yes	No
Ms Harris	73	Married	Healthy	Yes	No	No
Mrs Cooper (and Mr Cooper)	72	Married	Healthy	Yes	Yes	Yes
Mr Cooper (and Mrs Cooper)	72	Married	Healthy	Yes	No	Yes
Ms Knight	64	Divorced	Healthy	Yes	Yes	No
Mrs Pearson (and Mr Pearson)	77	Married	With memory problems	No	Yes	Yes
Ms Roberts	64	Single	Healthy	Yes	No	No
Ms Taylor	77	Widowed	Healthy	No	No	No
Ms Walsh	78	Widowed	Healthy	No	Yes	No
Ms Lee	75	Divorced/ widowed	Healthy	No	Yes	No
Mr Hughes (and Mrs Hughes)	59	Married	With memory problems	No	Yes	Yes
Mr Pearson (and Mrs Pearson)	82	Married	Healthy	Yes	Yes	Yes
Mr Cole (and Mrs Cole)	81	Married	With memory problems	No	No	Yes
Mr Green (and Mrs Green)	75	Married	With memory problems	No	No	Yes
Mr West	65	Single	With memory problems	No	Yes	No

(Continued)

Table 1. (Continued.)

Participant (pseudonym)	Age	Marital status	Health status (where healthy refers to without memory problems or stroke)	Driver	Locally born (Lancashire county)	Coupled interview
Mrs Parker (and Mr Parker)	77	Married	With memory problems	No	No	Yes
Mr Hill (and Mrs Hill)	75	Married	With memory problems	No	No	Yes
Mrs Hill (and Mr Hill)	72	Married	Healthy	Yes	Yes	Yes
Mr Griffiths	71	Married	Healthy	Yes	No	No
Mr Chapman	67	Married	Healthy	Yes	No	No

to each other and the theoretical framework, which led to further refinements. Categorisation along life events and mobility foregrounded the adaptive strategies that our participants employed and resulted in four overarching themes: adaptations to anticipated life events, adaptations to unexpected life events, layered effect of life events and adaptations, and a domino effect of life events and adaptations.

### **Research ethics**

We reflected on the potential issues concerning the recruitment of possibly vulnerable older adults, such as participants who experience memory problems. We chose to use ‘memory problems’ as a broader terminology to include participants who may not yet have a formal diagnosis (Prince *et al.*, 2015; Novek and Wilkinson, 2019; Sturge *et al.*, 2021b). In so doing, our research was more inclusive than research that considers a dementia diagnosis as a recruitment criterion (Sturge *et al.*, 2021b). Furthermore, our inclusive approach considered that participants with memory problems can still make choices (Hegde and Ellajosyula, 2016). While these participants can indeed be seen as vulnerable, this labelling alone can produce a stigmatising effect. Therefore, we included to these participants and found that they were empowered by participating.

Considering that some participants experienced memory problems, we implemented process consent in this research, which means that participants provided initial consent and reaffirmed their consent throughout the study (Dewing, 2007). Process consent helped maintain transparency in the research process and kept the participants informed. We established process consent throughout by reaffirming that the participant wished to continue the study in the introductory meeting, follow-up meeting and interview meeting. The data were collected and stored securely in line with the General Data Protection Regulation (GDPR), and ethical clearance was granted by the Faculty of Spatial Sciences, University of Groningen Ethics Committee.

### **Findings**

Life events and transitions play a critical role in the mobility of older adults in our research. The data underscored four key findings. Firstly, some life events are anticipated and are pre-emptively adapted to. Secondly, some are unexpected and cannot be pre-emptively adapted to, so participants adapted after the life event. Thirdly, we found that life events are layered and may overlap with other life events and adaptations. Fourthly, life events created a domino effect in some cases, triggering further life events and adaptations. The pervasive role of social and interdependent relationships in mobility, life events and adaptation is highlighted throughout the findings.

#### **Adaptations to anticipated life events**

This section discusses three anticipated life events: retirement, long-term illness and age-related illness. Retirement was anticipated by all participants, as it is a common aspect of later life. Participants typically engaged in internal adaptation pre-emptively. Ms Harris, a married retiree, was apprehensive about retiring initially:

I didn't actually want to retire ... I just felt there's a lot of other things I want to do and if I don't retire now ... I'm not going to have the time or the energy.

Ms Harris pushed herself to retire sooner rather than later, while she felt she was still physically able to do the things she wanted to do. This shows a pre-emptive internal adaptation where Ms Harris is aware of the potential for age-related impairments and therefore has decided that now is the right time to retire. This understanding was shared by many participants who retired in order to do what they wanted before they got too old. Ms Harris' apprehension about retirement stemmed from a perceived lack of purpose that retirement would entail, which she felt would limit her mobility. Upon retiring, she sought to find that purpose and maintain mobility:

I volunteer one day a week at the hospice, and I work in the charity shop ... I go dancing, I've got an allotment, I joined a craft group ... I meet a group of girls one day a week to do that ... I travel to [city] every few weeks to see my ... family ... I keep very busy yeah.

Ms Harris' external adaptations provided her with a purpose through various activities and social groups, all of which contributed to maintaining her desired mobility. Ms Harris' fears of retirement and its effect on her mobility was reflected in all participants who retired. The key for them all was doing activities that got them out of the house.

Participants who had ongoing, long-term illnesses could adapt pre-emptively to a re-occurrence or worsening of the illness. For example, Mr Adams lives with a heart condition that can re-emerge at any time in the future. To prepare for such an eventuality, he and his wife moved to the city centre. Mrs Adams explained:

We used to live out in the countryside ... he's got [a heart condition] ... So, we sort of pre-empted the situation because it will go off again ... it had to be near the railway station because [he was] still working then, so that enabled him to be able to get to work.

The Adams' decision to move to the city centre was made in the event of his heart condition re-occurring. Mr Adams continues to drive, but if his heart condition re-occurs he would not be allowed to drive by law. Thus, moving to the city centre mitigated this possible loss of mobility, as he is now closer to multiple forms of public transport and can walk to various amenities. This was not possible in the rural area in which they used to live. The majority of the participants, with and without illness, who moved house did so to maintain mobility and for access to public transport and amenities. An awareness of what may occur in the future was often at the centre of this decision to move.

Conversely, Mr Griffiths, a married retiree, deals with his wife's long-term, ongoing illness. Although Mr Griffiths does not suffer from any illness himself, his wife having a terminal illness plays a significant role in their mobility:



We do like to ... travel about a bit. [However], it's confined to the UK [United Kingdom] now because my wife has a [terminal illness] ... one of the things that you learn ... [is] to live in the moment ... you don't make long-term plans ... you just kind of get used to it.

Their mobility has changed, with no holidays abroad and not planning too far in advance. Mr Griffiths has adapted to this change by changing his outlook on mobility and what they can and cannot do together. This emphasises how the life events of others can affect one's mobility. This is particularly true with couples, who ultimately spend a lot of time together; as was the case with most participants, especially couples and those who cared for someone with dementia.

Some participants anticipated the process of ageing and related health issues and made preparations pre-emptively as a result. These preparations ranged from joining social groups to modifying a home. Ms Lee, a widowed retiree, joined an older adult social club, the membership of which had benefits beyond the present:

Looking long term ... I've got a place to go and even if your mobility isn't good ... somebody will take you ... I can't stand if I'd just be sat inside ... and the family feel better ... because they can see the things I'm doing.

Ms Lee feels that the social club will provide options to maintain her mobility and prevent her from becoming housebound. Thus, the social club provides opportunities to maintain independence from family and helps maintain her outgoing personality, regardless of future mobility impairments. The majority of participants also used social clubs to keep independent, interested and mobile.

As noted above, a key adaptation taken pre-emptively by several participants was to move home. Ms Knight made modifications to her home:

I just last year had a downstairs toilet put in, with a shower. I was future-proofing my house ... my mother had, caught pneumonia last year ... and she hasn't got those facilities ... And [she] really struggled with her mobility ... So, I think that that was one of the things that really prompted me to get it done.

This shows Ms Knight has future-proofed her home to maintain her mobility and she has learnt from her mother's experiences and taken pre-emptive action. Thus, another person's life event influenced her adaptations. This was often the case with participants, who learnt from other people's experiences and aimed to avoid these scenarios themselves in the future. The modifications by Ms Knight were in anticipation of challenges to her mobility, be it in illness or any age-related adversity.

Mr Hill also moved home and made modifications around the house. His wife suggested that these actions unintentionally helped mitigate the mobility issues he experienced upon developing dementia: 'we didn't plan for [dementia] ... You know even to taking the bath out and put in a walk-in shower. So when [dementia] happened it, he just, it's fine'. Thus, modifications made and his choices mitigated Mr Hill's mobility, even though he did not anticipate his dementia. The indirect effect of modifications and choices stresses that some participants' actions can have consequences for future life events, consciously or otherwise. This shows

just how interconnected life events and adaptations are throughout the lifecourse, particularly in later life. Many participants moved home and made modifications around the home in anticipation of ageing issues. In some cases of those who later developed dementia, the move and modifications became even more beneficial than first thought.

Thus, some life events can be adapted to pre-emptively, and some participants have done so, anticipating that their choices now will cushion the possible life events in the future. Furthermore, these adaptations sometimes had unintended benefits, especially for those who later developed dementia.

### **Adaptations to unexpected life events**

This section focuses on the following unexpected life events that emerged from the data: the death of a loved one and developing memory problems. The death of a loved one was a life event that was rarely anticipated and, therefore, difficult to adapt to pre-emptively. Ms Lee experienced a change in her mobility after the death of her partner:

We were out in the car going off, going on holidays ... when he died all that stopped ... that was hard, but then I had my family ... I'm positive, I used to just get on with it really, there's not a lot you can do is there?

Ms Lee maintained a positive attitude and received support from her family after her partner's death. This emphasises the use of internal adaptations and social networks to mitigate the impact of losing her partner. Ms Lee's quote also highlights how some past activities can stop entirely and are unlikely to return, which means her mobility is likewise transformed. This was the case for most participants who lost a partner. Yet, Ms Lee supplements her loss of these activities with new social networks and subsequent new activities, which has made her mobility flourish. Ms Lee showed her frustration at not joining a social group sooner: 'The annoying thing is I could have been going there from when I lost [name of partner], I didn't realise... it's only round the corner, so it's the best thing I ever did'. Ms Lee missed the opportunity to join the social club because she did not know it existed. Her frustration shows how potential adaptations and consequential mobility opportunities can be missed. This also shows the important role of social networks in boosting someone's mobility, as was the case for Ms Lee and many other participants who joined social groups.

The onset of dementia was a surprise for all participants affected and adversely impacted their mobility. Mr Green chooses to make those around him aware of his diagnosis. His wife said:

I mean to be fair with [name of participant] he really has accepted it, you know so I mean he doesn't mind anybody knowing and he prefers to tell people, and I think that's so they can make allowances.

Mr Green chooses to do this so that others are prepared and can help him overcome mobility limitations and also make them aware of those limitations that

cannot be overcome. For example, his difficulties following conversations can mean that he is quiet or not fully engaged in the conversation. Thus, he does not often spend time alone in public places and prefers to be in the company of his wife or friends. Most other participants with dementia were happy to make others aware of their impairments, which may be due to them all being connected to dementia charities and organisations.

Mr West likewise raises awareness about his dementia but has also tried to implement external adaptations in his everyday life to help alleviate his mobility limitations linked to dementia. For example, Mr West, who lives alone, tried using online shopping to help overcome the navigational issues he experiences going to the shop. However, this did not work out for him: '[before] I was getting [groceries] delivered ... That was like a total nightmare 'cause they'd turn up with all these crates ... shit where's it going'. This failed adaptation highlights how his dementia makes it difficult to adapt, as the online shopping system is not dementia-friendly and there are no viable alternatives. However, he was aware of a new opportunity to adapt, in the form of a new shop opening soon:

[a place is] being built into a shop ... a shop ... within walking distance will have a tremendous impact ... it will give me the power to be able to walk down to a shop and back.

This stresses how a small external change like having a shop within walking distance can profoundly affect his mobility. Mr West's example emphasises the trial-and-error process of adapting to life events. Where one adaptation fails, another may succeed. This can be seen with other participants both with and without dementia, who did not give up after a failed adaptation but sought out a new adaptation to reach their desired mobility.

Conversely, a loved one who has developed memory problems can play a significant role in one's mobility. Mrs Hill has adapted to her husband's dementia and has transformed into a care-giver. Driving has been one of many ways she has taken responsibility completely. To help her in this endeavour, Mrs Hill has acquired a blue badge (a certificate that allows the holder to park in disability spaces): 'we've got the blue badge now, so that makes it a bit easier ... parking places getting him in and out of the car'. Practically, the blue badge helps Mr and Mrs Hill maintain mobility outside the home, as he can get to public spaces easier. Furthermore, Mrs Hill notes how her ability to drive is crucial for maintaining their mobilities: 'we are very lucky that I can drive and I can take him everywhere you know, and we can take part in everything'. This shows that driving provides opportunities to keep them both mobile. This also shows the dependence they have on this form of transport and how Mrs Hill's ability to drive helps mitigate the effects of Mr Hill's dementia on both their mobilities. The majority of participants who had dementia noted the importance of their care-giver being able to drive in maintaining mobility and, to some extent, mitigating the mobility limitations that memory problems entail.

However, driving was not always so important, especially if other adaptations were taken. For example, Mr and Mrs Cole, of whom Mr Cole has dementia, discussed their driving cessation after moving home:

[after moving home] the car never moved off the drive because [name of participant] likes walking, he likes public transport ... We moved to this [home] because it's so near buses and trains and everything. Although there aren't that many buses and trains these days ... he decided to get rid of [the car] ... I'd had to give up a few years ago, I've got eyesight problems ... the main difference is your world slows down waiting for buses and trains and transfers. Apart from that, we survive.

Mr and Mrs Cole's story shows the change they went through, from car users to public transport users, in light of their impairments. The process of losing control over driving was something that other participants also emphasised. Although Mr and Mrs Cole attempt to make their peace with it, they have struggled to deal with the increased time spent waiting and travelling. This illustrates how adapting to life events and changes in mobility can be challenging. Other participants shared this challenging feeling but eventually accepted their new mobility.

### ***Layered and domino effect of life events and adaptations***

All participants discussed various life events, which often overlapped with other life events and adaptations, creating a layering of life events and adaptations. Participants also experienced a domino effect, where life events triggered further life events and adaptations. Therefore, life events and adaptations did not happen in isolation.

Upon losing her husband, Ms Taylor had to adapt her outlook on life and learn to do things herself, including driving alone. Previously she depended on her husband's driving, meaning that she did not feel confident driving alone. She explained: 'when my husband was alive, I did all the easy driving. And that wasn't [name of husband]'s fault; it was mine'. This highlights the dependence Ms Taylor had on her husband, not just for driving, but for many activities that got her out and about. Therefore, her husband played a major role in her mobility. Ms Taylor did try to continue driving after her husband's death, but she ultimately gave up. Ms Taylor recalled:

I went to [the shop] and ... I saw this [parking] space and I thought oh I'll go in there. And the sun caught me ... and I [hit] somebody. And that just put the finishing touches on it.

Ms Taylor's lack of confidence to drive, exacerbated by the death of her husband and lack of preparation beforehand, meant that adapting to the increased driving responsibility was made more difficult than other participants and made any confidence gained fragile. Thus, the accident was enough to stop her driving permanently. Ms Taylor's example accentuates how life events and adaptations are interlinked and interact with other life events. This is the case for any life event and adaptation experience and is not limited to losing a loved one or driving cessation.

The domino and layered effects were most noticeable with participants who had memory problems. While all participants with memory problems shared this characteristic in their lifecourse, Mr Hughes is of particular note because when he got

the dementia diagnosis, he was still working in his family-run business. He continued to work for a year or so after the diagnosis, during which time he stopped driving. For Mrs Hughes, this was a significant change to deal with:

when we were ever together [name of participant] did all the driving ... all I did was drive to work and back really at that point. So it's ridiculous really, but it's sort of like relearning.

Mrs Hughes relearnt to drive after Mr Hughes stopped. This indicates that his life event forced her to adapt and emphasises how interlinked their lives are. For the participants with dementia, this was a lesson their partners had to learn. They all took on greater responsibility in driving to facilitate their and their partner's mobility. Eventually, Mr Hughes retired due to the difficulties he had working, which was noticed by others:

she [daughter] would see that I was having trouble so unfortunately that made, put pressure on other members of staff and stuff like that. So it was difficult.

Mrs Hughes further explained:

we stopped trading [running the business] in March ... [Mr Hughes] couldn't do the work anymore ... I was having to go in and be with him ... It was just ... stressful.

His progressing dementia meant that he could not maintain and continue his prior mobility by continuing to go to work. His attempts to continue also negatively affected his colleagues, of whom some were family members. Furthermore, by going into work with him, Mrs Hughes attempted an adaptation, perhaps to help Mr Hughes continue working. Yet, this was ultimately unsuccessful and only caused more stress for them and likely led to the decision to stop working altogether. As a result of closing the business, Mr Hughes' mother also moved into their home shortly after because she no longer had a place to live. Mrs Hughes explained: 'she used to live above the business. And when the business got sold, um, she had nowhere to live basically. So she's come to live with us'. This new arrangement in their home was initially difficult, but they have gotten used to it now. Mrs Hughes explained:

It was a big change for you [name of participant] ... You struggled ... at the beginning. Just change of routine. Even something simple like who goes in the shower first ... But, um, it does seem to have settled.

Mr Hughes had to adapt to having his mother in his home. Inadvertently, the dementia diagnosis resulted in driving cessation and ultimately made it difficult for him to continue working at the family business. Furthermore, finishing work created a domino effect that led to changes in his mother's life and subsequently his own in new ways. Mr Hughes' example is unique in its complexity compared

to other participants but highlights how dementia can be a key catalyst for this domino effect of life events and adaptations.

## Discussion and conclusion

This article explored how life events play a role in older adult mobility over time. We found that mobility can change after life events and that adaptations are made to mitigate its effect on their mobility. These findings reflect the notion of Franke *et al.* (2017) that older adults adapt their mobility priorities over time in response to ageing and associated mobility impairments. This article expands on this notion by considering both anticipated and unexpected life events, such as the death of a loved one or developing memory problems. Our findings show how older adults may be forced to mitigate against the effects of life events they could not foresee and discuss how their present mobility may not reflect the desired mobility before the life event occurred. Furthermore, our findings emphasise the temporality of mobility by indicating how life events may trigger changes in mobility and how these triggers are found throughout later life. As catalysts, life events instigate various adaptations, successes, failures and new mobilities.

Additionally, our findings on adaptations contribute to the discourse on adaptive strategies. The findings illustrate the Baltes and Baltes (1990) selection, optimisation and compensation (SOC) model. Selection refers to focusing on specific goals, optimisation to improving or acquiring resources required, and compensation to substituting resources resulting from loss (Freund and Baltes, 1998; Netuveli and Blane, 2008; Villar, 2012). While the SOC model remains relevant, our findings suggest that, in adapting, participants wish to take control of their mobility and realise a mobility that is satisfactory for them. Thus, our findings also connect with the lifespan theory of control, which proposes that individuals engage in control strategies for goal attainment and to protect against failure to achieve their goals (Heckhausen and Schulz, 1995). Primary controls are external strategies that aim to change an individual's social or physical environment to achieve a desired outcome. In contrast, secondary controls are internal strategies, where the individual alters the way they think, especially when they perceive circumstances to be unchangeable (Haverstock *et al.*, 2020). Our participants' external and internal adaptations reflect primary and secondary controls, respectively. For example, participants making modifications in the home is a primary control and participants accepting driving cessation is a secondary control. Our findings on adaptations emphasise the central role adaptations play in participants' re(gaining) control of their mobility. Being able to adapt one's mobility is crucial throughout the lifecourse, and our research shows that this is especially the case in later life when the ageing process reaches a point of progressive decline and a high probability of age-related impairments. For example, the adaptations and awareness of participants like Mr West emphasise how important control is and how losing control due to the progression of his dementia diagnosis may have adverse results for his independence, sense of self and wellbeing. His experience with online shopping also shows how the primary control failure of using online shopping was mitigated by his pragmatic attitude to the dementia and his willingness to adapt, which illustrates the compensatory effect of secondary controls (Heckhausen and Schulz, 1995).

Our findings highlight the domino and layered effects of life events in later-life mobility. The findings show that life events are not self-contained and can trigger further life events, especially among participants with dementia. This also means that adaptations are triggered, which results in a layering of life events and adaptations. These findings reflect the discussion of Franke *et al.* (2020) of mobility's fluid and dynamic nature over time. However, our article suggests that this fluidity reaches across the entire later lifecourse and encapsulates all life events and adaptations, including life events that are yet to happen. This was the case with several participants, who either planned for eventual life events or inadvertently adapted to a life event they did not expect, particularly those who developed memory problems. Furthermore, our findings emphasise that the life events and adaptations of others (*i.e.* partners or care-givers) play a part in one's mobility. As such, mobility is dynamic over time and interdependent. This underscores the consistent nature of the linked lives domain, which states that people are embedded in and influenced by social relationships throughout the lifecourse (Elder, 1985).

The findings also emphasise the trial-and-error process of adaptations. This was especially so when participants were adapting to unexpected life events and seeking a new mobility. This trial-and-error process remarkably parallels the lock-in concept associated with the sustainable mobility transitions discourse. Lock-ins are moments where a technology, expectation or habit is adopted, with a slight possibility to deviate once this becomes the new standard (Kanger and Schot, 2016; Nikolaeva *et al.*, 2019). The automobile industry is a key example of this, where the standard for what a car should be is locked-in over time, creating a path dependency (Urry, 2004, 2009). In co-opting lock-ins, we suggest that adaptations are attempts to develop new individual lock-in moments. Each time an adaptation is attempted, the potential for a lock-in is created. If the adaptation is successful, a lock-in to a new mobility standard for the individual occurs. Our findings emphasise that both external and internal adaptations are needed to lock in a new mobility in later life. This need for both reflects the calls for the sustainable mobility transitions to be less focused on technology fixes and take into account more the internal adaptations, which are just as important (Nikolaeva *et al.*, 2019; Temenos *et al.*, 2017). In the social gerontology discourse, this ties into the view that the active ageing policies implemented by many countries and organisations, such as the World Health Organization, are reductionist because they foreground the importance of external adaptations (Fernández-Ballesteros, 2017; Foster and Walker, 2021). Thus, our article further contributes to the calls for internal adaptations to be fully incorporated into age-related policy because it has been suggested that, as we age, there is a shift from external to internal considerations for quality of life (Motel-Klingebiel, 2006).

This study has strengths and limitations. The methods used were well received by participants and enabled them to reflect on their mobility critically. The active inclusion of older adults with memory problems has been noted for its empowering qualities and acknowledgement of the agency of persons with memory problems (Brooks *et al.*, 2017; Sturge *et al.*, 2021a; Ward *et al.*, *in press*). By enabling participants to voice their opinions, the research became more inclusive and may enhance feelings of control and independence for those involved. This research approach should be carried forward in future research practice. The limitations

of our study were in terms of recruitment and specificity. As a result of our convenience sampling strategy through gatekeepers involved in dementia or later-life organisations and social groups, our participants were all actively involved in these networks. Therefore, the experiences presented in this article may not reflect the experiences of older adults who are not included in dementia and later-life organisations or social groups. Furthermore, our research is locally and regionally specific, which means the findings may not be representative of all older adults in other contexts. Yet, we note that our findings provide a unique parallel for other contexts and may illuminate the differences and similarities of older adult experiences in other contexts.

Future research may explore the possibility that typically unexpected life events such as developing memory problems should be considered part of the ageing process and something to be actively anticipated. Our findings reflect this, where some participants inadvertently adapted to developing dementia. While dementia is not a part of the normal ageing process (Irwin *et al.*, 2018), prevalence and lack of screening and minimal progress in treating dementia may support the need to accommodate dementia in society. Sturge (2022) emphasise the importance of creating a dementia-informed society. For instance, dementia awareness training can actively engage the participation of individuals with dementia in the workplace (Smith *et al.*, 2016; Vernooij-Dassen and Jeon, 2016; Sturge *et al.*, 2021c). This is one way in which memory problems and dementia can be included in society, creating a more inclusive place to age. This would have significant implications for the mobility of individuals with dementia, encouraging them to engage with their communities fully and without reservations.

In conclusion, we argue that life events and mobility are inextricably linked. Life events act as triggers in time, and adaptations before or after the life event can change or maintain mobility in various ways. Theoretically, we have brought together the discourses on mobility, lifecourse and adaptive strategies in later life. This has led to insights into the layered and domino effect of life events and adaptations and the role this effect plays in mobility. Furthermore, our article suggests that age-related policy, especially in transportation, should be more inclusive for people who experience memory problems and dementia. Our research also has implications for ageing in place, a policy implemented throughout the world, that encourages older adults to remain in their communities as they age. Our findings emphasise the need to reconsider how life events and the adaptations made play a part in older adult mobility and how older adults age in place.

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