Walking, sustainability and health: findings from a study of a Walking for Health group.

GRANT, Gordon, MACHACZEK, Kasia <http://orcid.org/0000-0001-5308-2407>, POLLARD, Nick <http://orcid.org/0000-0003-1995-6902> and ALLMARK, Peter <http://orcid.org/0000-0002-3314-8947>

Published version

GRANT, Gordon, MACHACZEK, Kasia, POLLARD, Nick and ALLMARK, Peter (2017). Walking, sustainability and health: findings from a study of a Walking for Health group. Health and Social Care in the Community, 25 (3), 1218-1226.

Walking, sustainability and health: findings from a study of a Walking for Health group

Gordon Grant, PhD.[+*]
Kasia Machaczek, PhD[+]
Nick Pollard, PhD[+]
Peter Allmark, PhD[+]

[+]Centre for Health and Social Care Research
Sheffield Hallam University

***Corresponding author:**

email: g.grant@shu.ac.uk
tel: 0114 225 5691

Centre for Health and Social Care Research, Sheffield Hallam University, Collegiate Crescent, Sheffield, S10 2BP, United Kingdom

Acknowledgements

We thank the Ramblers and Macmillan Cancer Support for enabling this study to take place. We very much appreciate the way that the Caythorpe Walking for Health group welcomed this study, and we are indebted to the walkers who agreed to be interviewed so that their stories could be told.

Conflicts of interest

The authors declare that they have no competing interests. The study was completed without external funding.

Abstract

Not only is it tacitly understood that walking is good for health and wellbeing, there is now robust evidence to support this link. There is also growing evidence that regular short walks can be a protective factor for a range of long-term health conditions. Walking in the countryside can bring additional benefits, but access to the countryside brings complexities, especially for people with poorer material resources and from different ethnic communities. Reasons for people taking up walking as a physical activity are reasonably well understood, but factors linked to sustained walking, and therefore sustained benefit, are not. Based on an ethnographic study of a Walking for Health group in Lincolnshire, UK, this paper considers the motivations and rewards of group walks for older people. Nineteen members of the walking group, almost all with long-term conditions, took part in tape-recorded interviews about the personal benefits of walking. The paper provides insights into the links between walking as a sustainable activity and health, and why a combination of personal adaptive capacities, design elements of the walks and relational achievements of the walking group are important to this understanding. The paper concludes with some observations about the need to reframe conventional thinking about adherence to physical activity programmes.

Keywords

Walking, sustainability, health, adherence

What is known about this topic

- Regular walks are good for physical and mental health.
- Walking in the countryside can have added benefits, but accessibility to the countryside can be compromised by socio-economic factors, ethnicity and safety issues.
- Though organised group walks have many attractions, evidence about the capacity of people to sustain a commitment to walking is more limited.

What this paper adds

- Factors sustaining walking are not the same as those motivating people to join a walking group.
- Personal adaptability, walk design and relational achievements of walking groups are key to understanding sustainable health outcomes.

Introduction

There is robust evidence that walking is good for health. Studies show that regular walking generates both physical and mental health benefits (de Moor 2013, C3 Collaborating for Health Report 2012). A recent systematic and meta-review of outcome studies of outdoor walking groups (Hanson & Jones 2015a) has reported clear health benefits over and above simply making people more physically active. There were found to be significant improvements in systolic and diastolic blood pressure, resting heart rate, body fat, BMI, total cholesterol, VO2max (oxygen uptake), depression, 6-minute walk test and quality of life physical functioning. Walking also appears to be associated with a reduced risk of dementia, so promoting active lifestyles in physically active persons might help late life cognitive function (Abbott *et al.* 2004). In the case of people with diabetes or cardiovascular conditions, regular walking can help to reduce risks of mortality (Gregg *et al.* 2003, Smith *et al.* 2007).

Walks do not have to be lengthy or strenuous. One hour of walking per week can lower coronary heart disease risk for women (men were not included in this study) (Lee et al. 2001). Short walks have been shown to increase self-reported energy levels (Ekkekakis *et al.* 2008) when adults can set their own pace. Experiencing green spaces has been linked to improved psychological states (Barton et al. 2009) so walking in the countryside may be especially beneficial.

In public health terms, walking is particularly attractive as an intervention (Public Health England 2014, Scottish Government 2014, Welsh Assembly Government 2014), because it is assumed to be free, low risk, universally

accessible and potentially cost-effective as a form of physical activity (PA). However, walking in the countryside can depend on opportunities shaped by social class and ethnicity (Evison *et al.* 2013), and there is evidence that, without targeting those with greater health and socio-economic needs, Walking for Health (W4H) groups may not be available in areas that most need them (Hanson & Jones 2015b). Further, for groups like people living in deprived communities, walking may simply be a reminder of the everyday privations they face (Bostock 2001) and reinforce fears about safety and crime. Even in the natural environment there is evidence suggesting that the perceived characteristics of places can prove threatening (Gatersleben and Andrews 2013), and therefore discourage people from walking.

People walk for different reasons. Darker *et al.* (2007) reported both individualised, functional walking for the positive psychological benefits associated with respite from the world, yet also social, purposeful walking for the pleasure of shared experience. Hynds & Allibone (2009) found that social contact, improving health and enjoying the natural environment were consistently identified as the key motivators for initial and continued participation in organised walking activity, though the details provided were limited.

With walking remaining integral to policies designed to help people stay active and healthy as they age, it is important to understand what role walking groups can play in this connection, especially in regard to what motivates people both to start and to continue walking in groups on a regular basis.

Methods

This study adopted an ethnographic approach involving tape-recorded interviews with members of a W4H group during late 2014.

Study setting

The walking group was formed in Caythorpe, Lincolnshire, UK, in January 2011. It is part of the national W4H network sponsored by the Ramblers and Macmillan Cancer Support. Membership of the group has grown steadily and it is not unusual for 40-50 people to turn up for the weekly walks. Almost all participants have long-term conditions or disabilities. Walks are cost-free, save for a modest £1 charge for tea and coffee laid on at the pavilion at the end of each walk. Thirty different local walks have been developed. About a half of the group's members live in Caythorpe or its linked sister village, Frieston, the other half travelling from communities up to 10 miles distant. Several of the regular walkers come on the bus.

In order to accommodate people with diverse conditions and levels of energy, a larger 'strider' group follows routes of between 2.5 - 4 miles whilst a 'stroller' group follows shorter routes of between 1 - 2 miles at a more leisurely speed. A typical walk for either group takes about one and a quarter to one and a half hours. For health and safety reasons each group is led by two or more volunteer walk leaders.

The local terrain embraces villages, hamlets and farmsteads as well as arable land and woodland. The area is bisected by the A607, a busy main road. To the

east of Caythorpe the land rises to expansive heaths whilst to the west it drops down towards the Trent valley.

Ethnography

The first author was a walk leader with the Caythorpe group so an ethnographic enquiry was considered the best way to gain an understanding of the motivations and rewards associated with group walks. Ethnography is typically best accomplished through an 'insider' perspective by being a member of the group or culture under study (Gobo 2008). In this study the first author had access to the group's history, an understanding of its membership and growth, access to its members and a close knowledge of the walks and the local environment. He was also on first name terms with everyone.

Interviews, sample and data analysis

Nineteen walkers agreed to take part in face-to-face tape-recorded interviews about their walking experiences during winter 2014/2015. No-one approached refused to be interviewed. There were 13 women and 6 men; age range 58-89 years; 13 married, 4 widowed, 2 divorced. Six of the 19 participants lived by themselves. All but three participants had an identified long-term health condition or disability that resulted in restrictions to mobility, loneliness or lowered self-confidence. There were 12 regular walkers in the sample and 7 walk leaders. People from social housing were under-represented in the walking group as a whole. It is not known if this is related to the timing of the walks on a weekday (Monday mornings), the perceived rules and practices of the group, or other as yet unknown factors.

All interviews were transcribed verbatim, resulting in over 100 pages of narrative. Following Polkinghorne (2008), the narratives served as evidence for personal meaning rather than for the factual occurrence of events. Narratives were compared with each-other so as to confirm or strengthen themes until 'thematic saturation' had been reached. Instead of returning transcripts to participants to strengthen the confirmability and trustworthiness (Denzin & Lincoln 2008) of emergent themes, copies of a draft final report were shared with them so that each participant could comment on matters of accuracy, representation and interpretation in context. With almost all participants making confirmatory comments, this proved to be a practical means of satisfying 'member checking' requirements (Carlson 2010).

Ethics and governance

Ethical approval for the study was given by Sheffield Hallam University after governance arrangements had been agreed with the Ramblers and Macmillan Cancer Support. All participants gave their signed consent to take part in the study. Pseudonyms for participants have been used to preserve anonymity.

Results

Finding out about the walking group

No-one interviewed had been referred to the walking group by the local general practice. Low referral rates from general practices and health services in general seem to be a feature of W4H schemes (South *et al.* 2012). A small number of participants in the present study had been encouraged by family doctors to

exercise as part of their continuing healthcare but without apparent reference to the local W4H group. All participants had been alerted either by posters placed in the general practice, the post office, village notice boards or else by word of mouth. At a speculative level this may suggest the value of walking as a community or social activity rather than as something with a primary health component. It is possible that this indirect relationship between the general practice and the group may be beneficial in that it leads people to feel that they own the decision to join the walking group rather than having it 'prescribed'.

Motivations for joining the walking group

It is therefore ironic that ***health factors*** were dominant among reasons expressed for joining the walking group. Health factors were individualised, with many health conditions implicated in personal decisions to start walking. These included medically diagnosed clinical conditions such as type 2 diabetes, arthritis, myalgic encephalomyelitis (ME), cardiovascular deterioration, raised cholesterol, high blood pressure, cancer, stroke and polycythemia. Some were the result of trauma such as fractures, slipped disc and resultant chronic back pain. Others were 'wear and tear' conditions associated with ageing such as joint problems or muscle loss. For a few people mental health issues were the dominant factors, typically depression, loneliness or psychological states associated with bereavement and loss. Walking was viewed as a vital activity designed to keep conditions such as these under some control:

> *I slipped my disc 10 years ago so I've been a great believer certainly pre and post that event that you've got to keep moving. What better way to keep moving than to keep walking…. I can't walk as far in one go as I used to…. We used to do 10-12 mile hikes but those days are gone (Frank)*

> *I started to have feelings of loneliness, and I was also becoming quite sedentary and that was having quite an effect on my physiological health. I was getting backaches and sitting around a lot…. I did feel I was becoming a bit stir crazy, and the penny hadn't dropped that all I needed to do was get out there, whether by myself or in a group (Alastair)*

Here there are early hints about walking as a restorative physical and social practice in which people are engaging with not only fresh air but also other people. As will be seen later this becomes particularly significant when understanding sustainability issues.

Features of the ***organisation and structure of the walking group*** were motivating factors for some participants. Being cost-free, local, led, regular and welcoming towards dog-walkers, the walks presented few barriers to people wishing to walk on a regular basis. Associated with these factors was the attraction of having to be disciplined about the management of personal time:

> *We like walking and the attraction was we don't do it as often as we should and this was going to be a regular weekly occurrence and that discipline - we were grateful for getting us out there once a week, yes (Bob)*

Environmental considerations featured amongst motivations for joining the group but these were not as widespread as had been anticipated. Being in the open countryside and discovering new places were the dominant factors:

> *I had actually tried (name of town) – they have a walking group and I swam (at the leisure centre) there when I could and I thought let's try that one but it all seemed to be on pavements and the whole point of being here was in the countryside so I do want country walks – to be able to let the dog loose and myself loose (Helen)*

> *…. and I thought it would be lovely to find some new places to walk to, and that was the main reason for me (Freda)*

For other people it was ***social factors*** that propelled them to join the walking group. Being able to socialise and integrate into the community were key:

> *And I don't like walking on my own…. I don't know, I like some company and somebody to talk to, you know (Agnes)*

> *It was a big move for us moving here…. it was a great way to get to know people in the village…. so that was just a gift and it was wonderful to see so many people there. First week, I couldn't believe it. There were 35 people or more; so it was really lovely to be able to meet so many people and to start to integrate quite quickly with local people (Ellen)*

For a particular group of participants, all women**, *safety factors*** were key to their decision-making. This largely centred on safety in numbers and the ability to be more adventurous when striding out with a group. Added to this was the reassurance of having a team of supportive walk leaders who had developed the walks and tested them for hazards:

> *I think it gives a tremendous sense of security to know that the walk leaders meet, discuss the issues, are there to back each-other up. If somebody doesn't feel well there's always somebody there to help. It just feels like a safe scenario for women who are on their own and who haven't got somebody to walk with. It's a wonderful facility (Beth)*

The parameters that W4H schemes operate within – short regular walks of no more than 3-4 miles, taking perhaps one to one and a half hours – provided some participants with what might be termed a ***good fit with their personal walking capacities***.

The onset of long-term conditions had forced some walkers to 'step down' from walking with the Ramblers (a UK organisation that promotes and organises walking groups in countryside) and other walking groups to join the W4H group. However, in Beth's case, being able to join the stroller group that covers even

shorter distances at a slower pace than the main group was a great inducement for her to join up:

> *What enticed me - I knew that I couldn't go with the main group; I couldn't go as fast and I couldn't go as far, but when I heard there was a stroller group my ears pricked up and I thought oh I could manage a two mile walk.*

Though not widely expressed, walking for some people was an activity that had previously provided them with a ***source of enjoyment***:

> *We enjoy walking and we used to walk around the village, and occasionally walk with our daughter's dogs but we heard about the walk group and thought we'd go along and try (Colin)*

The narratives showed that individual participants typically expressed several reasons for joining the walking group so the different themes identified here should not be viewed as discrete, watertight categories. Discourse cannot be so conveniently packaged.

Why continue walking?

When discussing why participants continued walking with the group, it soon became apparent that two interwoven themes were dominant in their stories, the sheer **fun and enjoyment** of the activity and a host of **social factors**. This stands in sharp contrast to personal health considerations that dominated reasons why people started walking with the group.

For people new to walking in groups, the **fun and enjoyment** of the activity was a pleasant discovery. For others with prior walking experiences with the Ramblers, Women's Institute (WI), University of the Third Age (U3A) or just

walking by themselves it was a more predictable outcome. In Frank's case it was a simple equation – enjoyment, fresh air, walking:

> *For me it's because I enjoy walking, and getting out in the fresh air. If I didn't enjoy that then I would not continue with it. I would have to enjoy what I was doing, so happy to continue with it.*

In Alastair's case it was much more straightforward:

> *It's a buzz on a Monday morning. You know, what more could you want?*

In similar vein Liz spoke to enjoyment being linked to starting the week, the companionable nature of the group, the variety of walks and feel-good factor:

> *Oh cos I thoroughly enjoy it. I would not dream of stopping (laughter). Oh no I really look forward to it and I think the fact it's a Monday morning is lovely because it prepares you for the week, doesn't it. It's a good start to the week but no I enjoy it. I enjoy the company, the walks are good because you've got a lot of variety as well, and going away once a month to a further afield walk is rather nice.*

These brief comments from participants suggest that the enjoyment of the experience is linked to the idea of a 'gestalt', that is of an organised whole that is more than the sum of its parts. Fun and enjoyment were inseparable not only from the physical activity involved, but also the anticipation of it, the focus and companionship it provides, and also the appreciation of the countryside. In short, enjoyment implied physical, psychological, social and aesthetic experiences.

Alongside fun and enjoyment, **social factors** were also dominant in the narratives about why participants continued walking. In Phil's case his continued interest was partly attributable to meeting up with people who were increasingly familiar to him:

> *I also walk because I enjoy the people. I mean you can't get on with everybody but you gravitate to certain people and I look forward to going and meeting those people as well as the walking…. (Phil)*

The walking group had a kind of emancipatory function for some walkers. At one end of the continuum was Bob who enjoyed 'geeky' conversations on specialised topics with selected people whilst, by contrast, Tricia experienced a feeling of liberation through socialising with anyone:

> *And the other thing is, though I tend to walk with one person, since I've been walk leader that doesn't happen so much but you can talk to anybody you know, and if I'm tail-end Charlie anybody that's at the back end. Everybody is so easy to talk to, even those that don't want to be spoken to! (Tricia)*

Other walkers emphasised the more intimate conversations that frequently took place between walkers, enabling confidences and help to be exchanged. The strengthened relationships that emerged were subsequently manifested in wider forms of mutual helping in community contexts that linked participants outside of the group walks. In these senses the group represented a rich source of social capital (Putnam 2000) that was highly prized by its members.

From the narratives it was also apparent that, once established and proven, the group quickly became incorporated into the **rhythm of personal life**:

> *Interesting isn't it! I think everyone that I've talked to says the same thing. It's Monday, you go on a walk! There's just no question about it (laughter). That's what you do on a Monday morning, and it's just part of the rhythm of your life. And it's a lovely way to start the week…. It just doesn't enter our minds that we could not go (Sylvia)*

> *…. but you do get locked into these things, your mind set, you think 'walk Monday'! (Delia)*

Jim was similarly of the view that the weekly discipline of the walks was now an integral part of his routine, so much so that even the worst weather was not a deterrent:

> *And I'll tell you something else that's a good experience. You know it's a Monday morning. There's going to be a walk. It's pouring with rain and you say 'right you are, get yourself ready, I can go out'. And you get that walk even if it's pouring with rain whereas if you were on your own you'd think 'oh it's not worth going out today', you know, and you come back soaked to the skin and you think to yourself 'why do I do this?' and then you strip off.*

Following Darker *et al.* (2007), these particular narratives convey the idea that the walks represent purposeful activity that is not only pleasurable but also one that had become an integral part of the weekly routine.

Environmental attractions were important to some participants as part of their rationales for continuing to walk with the group. Three linked dimensions were involved:

Appreciation of natural beauty:

> *…. we old people in the stroller group, we have a healthy interest in beauty and nature, and we don't feel we have to race because we only go half the distance of the main group. We have leisure to stop and look and appreciate, and that's part of the wonder of it (Beth)*

Discovery of new places:

> *Although you've lived in the area for quite a few years you don't necessarily know all the footpaths so it's been quite nice to get to know all the footpaths and the region as well (Susan)*

Places with special meaning:

> *…. and I can remember another occasion …. shortly after we moved here…. and the mist was in the valley and we were above that and it was the tops of the trees poking through. It was magical, so when I walk up there I always think about that again. Haven't seen that since then, magical (Phil)*

It is important not to over-romanticise the connections with the environment. Features of the natural environment like dense woods may evoke fear and prove to be less than restorative (Gatersleben & Andrews 2013). Several walkers pointed out unattractive 'blots on the landscape' like the local recycling plant or walking routes that were considered boring. However it is also apparent from these brief comments that, for the most part, the notion of environmental attraction is intersubjective (Doughty 2013) rather than an implicit quality of surroundings.

Though dominant amongst participants' motivations for joining the walking group, **health considerations** were much less in evidence as reasons for continued walking,

However, for some of the walkers like Phil and Alastair, maintaining or improving health and wellbeing remained important:

> *First and foremost I do it to keep my body moving, erm, I've got a problem with my back and with my knee – my left knee – and I try and do as much exercise as I can within certain parameters, and so I walk for health basically (Phil)*

> *Well because of the feedback loop. It's made me feel so much better. Why stop, you know? Carry on feeling better. I think that's the essence of it…. It's physically feeling better, feeling sharper, more alert, but also feeling better about myself from the point of view of self-confidence (Alastair)*

For walk leaders, there was a factor unique to them that that was core to their continued walking, the **felt sense of obligation**. Having volunteered to undertake the necessary training and then to organise and lead walks, the walk

leaders were making a serious commitment to the activity, as long as their health and fitness prevailed.

For Colin the commitment also had generational overtones:

> *Well I think we do it because people of our vintage, once you have a commitment you have a commitment, and being walk leaders it's important that you don't let other people down, as much as anything. I think that if it ceased to be enjoyable or if the knees gave way we wouldn't do it, but whilst one is relatively fit….*

Sustainability and personal adaptive capacity

Within the narratives there were many accounts from participants about strategies to help them continue walking.

The first strategy involved walking as a means to regulate health symptoms by *taking responsibility for controlling exercise and its consequences*. For Steve and Jim, walking was a vehicle for testing and monitoring their heart conditions. It helped them to develop customised ways of managing their respective health conditions. The adaptations made to normal walking practices were typically small but their effects could be very significant. Such adaptations or 'micro tests' – for example the speed of walking up inclines, the ease of negotiating stiles, the ability to 'walk and talk' without getting out of breath – all provided personalised feedback about individual health and stamina.

For other walkers, it was equally important to be able to continue walking when there was a decline in energy levels or a change in personal circumstances, for

example following falls, ill health or surgery. In short, *'stepping down a level'* was crucial. This took three main forms:

(i) *regulating the pace of walking.* Following a surgical procedure or perhaps after an accident, it was natural for people to be tentative. The natural response was to slow down and deploy extra vigilance. In this way people took personal responsibility for regulating how quickly or slowly they walked without losing touch with others as they walked. In any case there were natural halts at stiles, ditches or roads, and at intervals walk leaders would halt the walk to allow people to take in views or to rest for a few moments. This allowed those at the back of the group to catch up. Hence the structure of the group walks, with their built-in halts, made it possible to keep everyone together, including those that were having to be more cautious about their walking speed.

(ii) *transitioning to and from the stroller group.* When Jim first experienced what turned out to be symptoms of angina, he joined the stroller group for a while. These walks were more leisurely and incorporated more stops. Jim subsequently returned to the main strider group when he was better able to manage his angina. His story was typical of other walkers. The stroller group therefore provided a base from which walkers could 'step up' and rejoin the strider group whe they felt their conditions allowed.

(iii) *dropping out but coming for coffee.* Aided and abetted by the fine coffee served up at the pavilion, the friendliness of the group continued to be a draw for people even when they were too incapacitated to walk. Currently three of the

regular walkers are out of action, one following a fall, another following heart surgery and a third because of hip problems. However, all three continue to come for coffee on Mondays, primarily to be amongst a community of friends. For two of the three, 'dropping out' is temporary with both anticipating that they will soon be walking with the group again. For the third person the scenario is less clear. She awaits an assessment for physiotherapy and it may well be that she will not regain sufficient fitness to rejoin the stroller group. Even when people were unable to walk, the group still acted as a kind of 'holding environment' (O'Connell Higgins 1994) that kept people connected.

There is also what might be considered a fourth 'prior' category of stepping down. Phil, Sylvia, Bob, Ellen, Frank, Colin, Delia and Steve had all previously been members of Ramblers, U3A, WI or other walking groups, or else had strenuous walking to do as part of their former occupations. All had chosen to 'step down' to the W4H group in order to adjust their walking to lowered energy levels or because of the effects of arthritis, heart problems or other conditions.

Discussion

The findings from the present study not only reconfirm the established link between group walks and health, they add to that knowledge by offering insights into what makes that link work.

Aided by having two groups of walkers ('striders' and 'strollers') with differing walking capacities, participants demonstrated an adaptive capacity that allowed them to continue walking despite changes to their personal circumstances.

Whether *stepping up, maintaining a reasonably steady state* or using strategies to *step down* whilst still retaining involvement with the walking group, participants demonstrated personal agency and resilience. They took responsibility for calculating the risks and benefits of stepping up or down, learning from experience the best ways to manage their conditions, in the process sharing insights and drawing comparisons with fellow walkers from whom they drew reassurance. Self-care lies at the very heart of the government's priorities for the management of long-term health conditions (Department of Health 2014). Walking in groups seems to represent a good, almost cost-free example of how this policy commitment can be practised safely at a local level.

Walking provided a purpose to the point that the weekly walks became embedded within taken-for-granted family routines, affording continuity and progression in people's lives. The structures within the walking environment enabled participants to set personal goals, express their agency, make accommodations and adjustments when necessary, and also make contributions to fellow walkers, all of which can be interpreted as signs of healthy ageing (Baltes & Smith 2003, Villar 2012).

Perhaps the most striking finding to emerge from the study was the contrast between motivations for joining the walking group, dominated by health-related factors, and those reflected in the rewards from the experience, typified by enjoyment and social factors. The glue that held the walking group together was its social capital. This was associated with the buzz of meeting up and the opportunities to meet new people and to bond, providing scope to find

information and make new discoveries. It enabled some people to express a sense of liberation through the freedom to interact with fellow walkers without agenda. Coupled with the evidence about how much participants enjoyed themselves, it was *the* factor dominating why people kept coming back for more walks. However, the sustainability of the walks appeared to be the result of a combination of factors that needed to come together.

First, there were the *design* elements of the walks. Walks were: **local** and therefore easy to reach; **regular** (weekly), providing opportunities to steadily build up health and stamina; **cost-free,** and therefore without financial barriers; **led by trained walk leaders**, laying the conditions for trust; **inclusive**, accommodating people with a diversity of personal conditions and walking capacities, and also dog walkers; and rich in '**walkability**' terms, i.e. diverse, safe and environmentally attractive. Almost all of these features are common to all W4H groups and are relatively fixed.

Secondly, following Duff (2011), there were *relational achievements* of the walking group. These were **trust** in the capacity of the walk leaders to timetable and continuously test every walk, to lead the walks safely, and to carry all the accoutrements to support people when necessary – first aid kits, maps, mobile phones and water; the **social capital** generated by the group, manifested by the information exchanges, social networking, bonding and mutual help that made the group so attractive to its members; the **sense of purpose** it gave to participants by not only helping to make them feel better about themselves but also, as if by confirmation, by becoming **part of their weekly routines**; and

finally, the opportunities that the walks provided for individuals to express their **adaptability to changing personal circumstances**, thereby flagging the capacity to **age successfully**. As relational achievements, these factors are likely to vary from walking group to walking group. However, there is an important caveat to bear in mind here. Some of the support infrastructure at local authority level (health and safety training for walk leaders, district walks co-ordinators for example) for Walking for Health groups is presently under threat. This may serve to isolate walk leaders and therefore undermine the viability of many such groups. If the public health commitment to walking is to be taken seriously, it seems reasonable to question whether this should be wholly dependent on voluntarism.

Adherence by vulnerable groups to health-related PA programmes continues to be poor (Thurston & Green 2004, Hutchison *et al.* 2013, Scott *et al.* 2014). Factors shaping adherence to PA programmes seem largely to have emerged from psychologically rooted social cognition models and behaviour change theory (Biddle & Mutrie 2008). For some observers (Nettleton & Green 2014) such approaches risk marginalising the collective tacit knowledge or practical reasoning that makes practices, maintenance of group walks in the present case, more likely. The time now seems right to reframe such models within a social and ecological framework that places value on intersubjectivity in the relations between people, places, and activity; people as active agents who contribute forms of capital that make the groups cohesive and enabling; and an emphasis on the lay perspective. After all, if physical activities like walking are not fun then no-one is going to last the course. Lay models rooted in the everyday tacit

experiences of participants would appear to be ripe for development and testing at this time. If this can be accomplished there are likely to be good prospects for significantly improving our understanding of sustainable PA, including group walks, and long-term health maintenance.

Like much other research, our study is limited by time, place, scale and methodology. The findings relating to sustainability in particular need to be replicated by studies in different rural and urban places that reflect population diversity, especially ethnicity and socio-economic status, and embracing walking groups with contrasting practices and organisational arrangements.

References

Abbott, R.D., White L.R., Wester Ross, G., Masaki, K.H., Curb, J.D. and Petrovich, H. (2004) Walking and dementia in physically capable elderly men, *Journal of the American Medical Association*, 292, 1447-1453.

Baltes, P.B. and Smith, J. (2003) New frontiers in the future of aging: from successful aging of the young old to the dilemmas of the fourth age, *Gerontology*, 49, 123-135.

Barton, J., Hine, R. and Pretty, J. (2009) The health benefits of walking in green spaces of high natural and heritage value, *Journal of Integrative Environmental Sciences*, 6, 4, 261-278.

Biddle, S and Mutrie, N. (2008) *Psychology of Physical Activity: determinants, wellbeing and interventions*. London, Routledge.

Bostock, L. (2001) Pathways of disadvantage? Walking as a mode of transport among low-income mothers, *Health and Social Care in the Community*, 9, 1, 11-18.

Carlson, J.A. (2010) Avoiding traps in member checking, *The Qualitative Report*, 15, 5, 1102-1113.

C3 Collaborating for Health (2012) *The Benefits of Regular Walking for Health, Well-being and the Environment.* London.

Darker, C., Larkin, M. and French, D. (2007) An exploration of walking behavior – an interpretative phenomenological approach, *Social Science and Medicine*, 65, 2172-2183.

deMoor, D. (2013) *Walking Works*. Walking for Health Team, London, the Ramblers.

Denzin, N. K., & Lincoln, Y. S., Eds. (2008). *Collecting and Interpreting Qualitative Materials*, 3rd edition. Thousand Oaks, CA: Sage.

Department of Health (2014) *Government Response to the House of Commons Select Committee Report into Long-Term Conditions*. Second report of Session 2014-15. Cm. 8937.

Doughty, K. (2013) Walking together: the embodied and mobile production of a therapeutic landscape, *Health and Place*, 24, 140-146.

Duff, C. (2011) Networks, resources and places: on the character and production of enabling places, *Health and Place*, 17, 149-156.

Ekkekakis, P., Backhouse, S.H., Gray, C. and Lind, E. (2008) Walking is popular among adults but is it pleasant? A framework for clarifying the link between walking and affect as illustrated in two studies, *Psychology of Sport Exercise*, 9(3): 246–264.

Evison, S., Friel, J., Burt J. and Preston S. (2013) *Kaleidoscope: Improving Support for Black, Asian and Minority Ethnic Communities to Access Services from the Natural Environment and Heritage Sectors*. Natural England Commissioned Reports, Number 127.

Gatersleben, B. and Andrews, M. (2013) When walking in nature is not restorative – the role of prospect and refuge, *Health and Place*, 20, 91-101.

Gobo, G. (2008) *Doing Ethnography*. Los Angeles, Sage.

Gregg, E.W., Gerzoff, R.B., Caspersen, C.J., Williamson, D.F. and Narayan, V. (2003) Relationship of walking to mortality among US adults with diabetes, *Arch Intern Med,* 163: 1440–7.

Hanson, S. and Jones, A. (2015a) Is there evidence that walking groups have health benefits? A systematic review and meta-analysis, *British Journal of Sports Medicine*, 49, 11,710-715.

Hanson, S. and Jones, A. (2015b) A spatial equity analysis of a public health intervention: a case study of an outdoor walking group provider within local authorities in England, *International Journal for Equity in Health*, 14, 106, doi: 10.1186/s12939-015-0256-x

Hutchison, A.J., Johnston, L.H. and Breckon, J.H. (2013) A grounded theory of successful long-term physical activity behaviour change, *Qualitative Research in Sport, Exercise and Health*, 5, 1, 109-126

Hynds, H. and Allibone, C. (2009) *What Motivates People to Participate in Organised Walking Activity?* Natural England Research Report, NERR028. Sheffield, Natural England.

Lee, I.M., Rexrode, K.M., Cook, N.R., Manson, J. and Buring, J.E. (2001) Physical activity and coronary heart disease in women: Is "no pain, no gain" passe? *Journal of the American Medical Association*, 285(11): 1447–54.

Nettleton, S. and Green, J. (2014) Thinking about changing mobility practices: how a social practice approach can help, *Sociology of Health and Illness*, 36, 2, 239-251.

O'Connell Higgins, G. (1994) *Resilient Adults: overcoming a cruel past*. San Franciso, Jossey Bass.

Polkinghorne, D. (2007) Validity issues in narrative research, *Qualitative Inquiry*, 13, 4, 471-486.

Public Health England (2014) *Everybody Active, Every Day: a framework to embed physical activity into daily life*. London.

Putnam, R. (2000) *Bowling Alone: the collapse and revival of American community*. New York, Simon and Schuster.

Scott, S.E., Breckon, J.D., Copeland, R.J. and Hutchison, A. (2015) Determinants and strategies for physical activity maintenance in chronic health conditions: a qualitative study, *Journal of Physical Activity and Health*, 12, 5, 733-740.

Scottish Government (2014) *Let's Get Scotland Walking: the national walking strategy*. Edinburgh.

Smith, T.C., Wingard, D.L., Smith, B., Kritz-Silverstein, D. and Barrett-Connor, E. (2007) Walking decreased risk of cardiovascular disease mortality in older adults with diabetes, *Journal of Clinical Epidemiology*, 60(3): 309–17.

South, J., Giuntoli, G. and Kinsella, K. (2012) *An Evaluation of the Walking for Wellness Project and the Befriender Role*. Natural England Commissioned Report 118.

Thurston, M. and Green, K. (2004) Adherence to exercise in later life: how can exercise on prescription programmes be more effective? *Health Promotion International*, 19, 3, 379-387.

Villar, F. (2012) Successful ageing and development: the contribution of generativity in old age, *Ageing and Society*, 32, 7, 1087- 1105.

Welsh Assembly Government (2014) *A Walking and Cycling Action Plan for Wales 2009-2013*. Cardiff.