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Participant and public involvement in refining a peer-volunteering active aging intervention: Project ACE (Active, Connected, Engaged)

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1 **Abstract**

2
3 Background

4 Evidence for the health benefits of a physically active lifestyle amongst older adults is strong
5 yet only a small proportion of older people meet physical activity recommendations. A
6 synthesis of evidence identified “best bet” approaches and this study sought guidance from
7 end-user representatives and stakeholders to refine one of these, a peer-volunteering active
8 aging intervention.

9 Methods

10 Focus groups with 28 older adults and four professional volunteer managers were conducted.
11 Semi-structured interviews were conducted with nine older volunteers. Framework analysis
12 was used to gauge participants’ views on the ACE intervention.

13 Results

14 Motives for engaging in community groups and activities were almost entirely social.
15 Barriers to participation were lack of someone to attend with, lack of confidence, fear of
16 exclusion or ‘cliquiness’ in established groups, bad weather, transport issues, inaccessibility
17 of activities, ambivalence and older adults being ‘set in their ways’. Motives for volunteering
18 included ‘something to do’, avoiding loneliness, the need to feel needed, enjoyment and
19 altruism. Challenges included negative events between volunteer and recipient of
20 volunteering support, childcare commitments and high volunteering workload.

21 Conclusion

22 Peer volunteering approaches have great potential for promotion of active aging. The
23 systematic multi-stakeholder approach adopted in this study led to important refinements of

1 the original ACE intervention. The findings provide guidance for active aging community
2 initiatives highlighting the importance of effective recruitment strategies and of tackling
3 major barriers including lack of motivation, confidence and readiness to change, transport
4 issues, security concerns and cost; activity availability; and lack of social support.

5 Keywords

6 Older adults, physical activity, community engagement, intervention, volunteering, peer
7 support, multi-stakeholder, qualitative

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1 Introduction

2 Globally, the number of people aged 60 years or over is expected to increase from 841
3 million in 2013 to over 2 billion in 2050 (United Nations, 2013). Supporting healthy aging to
4 reduce health and social care costs is an increasingly high priority for public health (World
5 Health Organization, 2015; Foster & Walker, 2015). The evidence for the benefits of a
6 physically active lifestyle is strong, illustrating consistent associations with better physical
7 and mental health, improved mobility, well-being and reduced risk of all-cause mortality in
8 older adults (Chodzko-Zajko et al., 2009; Hamer, de Oliveira, & Demakakos, 2014; Windle
9 et al, 2010; Withall et al., 2014; Bauman, Merom, Bull, Buchner & Singh, 2016). However
10 only a small proportion of adults over 65 years meet physical activity guidelines (Craig,
11 Mindell, & Hirani, 2009; Department of Health, 2011). There are many gaps in the evidence
12 base regarding how to support older people in increasing their physical activity. However, as
13 the population ages and the demands for health and social care services increase, there is an
14 urgent need to act (Stathi, Fox, Withall, Bentley, & Thompson, 2014). This is particularly
15 pertinent as the connections between loneliness, isolation and ill health becomes more well-
16 established (Cattan, White, Bond, & Learch, 2005).

17 Social connectedness is an independent predictor of older adults' health and wellbeing
18 (Vermeulen et al., 2011). Social isolation is related to depression, cognitive impairment
19 (Stathi et al., 2012), lower self-rated health (Wahrendorf & Siegrist, 2010) and higher
20 susceptibility to dementia (Cattan et al, 2005). Social activity is significantly related to daily
21 walking episodes (Richard, Gauvin, Gosselin, & Laforest, 2009) and neighborhood
22 connectedness is linked with lower barriers to physical activity (Walker & Hiller, 2007).
23 Increased physical activity is a likely mechanism through which social connectedness may
24 lead to these positive outcomes. Among older adults the frequency of trips outdoors is

1 associated with higher levels of moderate to vigorous physical activity (Davis et al., 2011),
2 better physical function and greater independence (Vermeulen et al., 2011). Frequency of
3 such trips out are influenced by a real or perceived lack of local amenities, activities and
4 groups (Marquet & Miralles-Guasch, 2015), confidence to engage with community activities;
5 social support and the availability of someone to attend activities with (Stathi et al., 2012).
6 This interaction between social connectedness, frequency of trips away from home and
7 physical activity suggest that policies that encourage community engagement may provide
8 several health and well-being benefits for older adults, particularly those who are currently
9 inactive and socially isolated.

10 Volunteering facilitates community engagement and is growing in popularity amongst older
11 adults (van Groenou & van Tilburg, 2012). Volunteering is positively associated with mental
12 wellbeing, quality of life, self-esteem, and reduced risk of depression (Cattan et al., 2005;
13 McDonnall, 2011; McMunn et al, 2009; Wahrendorf & Siegrist, 2010). It is also associated
14 with higher levels of physical activity (Tan et al., 2009), moderated or delayed mortality
15 (Okun, Yeung, & Brown, 2013), higher levels of social connectedness (Parkinson,
16 Warburton, Sibbritt, & Byles, 2010) and trips away from home (Morrow-Howell, 2010). A
17 limited number of studies have shown volunteer-driven physical activity interventions to be a
18 promising means of increasing participants' activity levels. (Robertson et al., 2014).

19 This paper describes findings from qualitative work that helped modify and refine an active
20 aging intervention. The initial ACE intervention was the output of a 12-month multi-sectoral
21 collaborative network in the Avon region of the UK (AVONet), led by authors of this paper
22 (Littlecott, Fox, Stathi, & Thompson, 2015). AVONet synthesized evidence from a wide
23 range of sources, rigorously applied the UK Medical Research Council (MRC) guidelines and
24 good practice in participant and public involvement (PPI), in order to identify “best bet”

1 strategies for tackling low levels of activity in older adults and to provide pragmatic guidance
2 for public health policy makers and practitioners (Craig et al., 2008; Stathi et al., 2014). It
3 identified the potential for an active aging intervention promoting the ‘get out and about’
4 message and led to the development of a grant application for a pilot study of the Active,
5 Connected and Engaged neighborhoods (ACE) intervention which was subsequently funded
6 by the Lifelong Health and Well-being Initiative (Gateway to Research, 2015).

7 ACE was a two-year pilot study designed to test a practical, sustainable, and affordable
8 approach to improving health and well-being in older adults by increasing trips out of the
9 house, rather than directly promoting physical activity. ACE employed older volunteers
10 (60yrs+) as ‘Activators’, to support socially isolated older peers to increase their involvement
11 in community activities and subsequently increase physical activity, social engagement, and
12 mental well-being.

13 The Process Model of Lifestyle Behaviour Change (PMLBC), which is an adapted version of
14 the Health Action Process model, was used to map out the intended processes of behaviour
15 change during the three stages of the ACE intervention: motivation, action and maintenance.
16 (Gillison et al., 2015; Greaves et al., 2015). In accordance with Self-Determination Theory
17 (SDT), which has been used to underpin a range of physical activity interventions (Teixeira et
18 al., 2012; Withall, Jago, & Fox, 2012), the ACE intervention particularly targeted the
19 satisfaction of the need for relatedness, competence and autonomy (Deci & Ryan, 2002).

20 Best practices for the development of community-based interventions consider community
21 and end-user involvement to be a crucial constituent (Horodyska et al., 2015; Whelan et al.,
22 2014); while most successful interventions include substantial participation from key
23 stakeholders (Economos & Blondin, 2014). The aim of this study was to seek feedback and
24 guidance by end-user representatives (older group participants and older volunteers) and

1 stakeholders working in the area of active aging (volunteer managers) to refine ACE, a
2 volunteer-led active aging intervention. This systematic, multi-stakeholder approach provides
3 guidance relevant to other community initiatives where greater social engagement of isolated
4 older adults is targeted.

5

6 **Methods**

7 Data collection

8 The study used a qualitative methodology as it is highly appropriate for increasing
9 understanding of complex personal and social phenomena such as engagement in physical
10 and social activities. Qualitative approaches are particularly useful when, as in this case, there
11 is limited existing knowledge (Patton, 2002).

12 This study is informed by the principles of social constructionism, according to which
13 knowledge is constructed through interaction with other humans and their world. This reality
14 is developed and communicated in a social setting (Crotty, 1998).

15 We targeted diverse stakeholders with experience in community-based initiatives aimed at
16 engaging older adults. Three key groups were identified: older adults (65yrs +) who had
17 participated in community groups and activities (older group participants), adults (60yrs +)
18 who were experienced volunteers (older volunteers), and professional volunteer managers
19 experienced in working with older adults (volunteer managers). Focus groups were
20 undertaken with the older group participants to enable triangulation of the data and for
21 pragmatic reasons, as groups of participants were usually attendees at the same community
22 group. Focus groups were conducted with volunteer managers and semi-structured interviews
23 with older volunteers as this was their preferred interview method.

1 All participants lived or worked in the city of Bristol, United Kingdom. The study was
2 reviewed and ethically approved by the University of Bath Research Ethics Committee (EP
3 11/12 98). During design, data collection, and analysis, we attended to the consolidated
4 criteria for reporting qualitative research (COREQ) (Booth et al., 2014).

5 All interested participants were provided with a participant information sheet and written,
6 informed consent was obtained prior to all interviews and focus groups. Demographic
7 information was gathered on age, gender, ethnicity, education level and marital status.

8 The interviewers, JW, AS and JdeK, are all experienced qualitative researchers in the field of
9 active aging. Theoretical saturation was deemed to have been reached when focus groups and
10 individual interviews revealed no further unique information.

11 Focus groups and interviews were audio-taped using an Olympus VN2100PC digital voice
12 recorder, transcribed verbatim and coded to ensure anonymity and confidentiality. All
13 transcribed text was entered into NVivo Software for Qualitative Research 2002.

14 **Data source 1 – Focus groups with older adults attending community groups and**
15 **activities (Older group participants, n=28)**

16 Older group participants were recruited at community groups such as lunch clubs, singing
17 groups and IT courses for older adults. These groups were purposively selected from lists
18 published by the City Council to reflect a range of age, gender and socio-economic
19 background (Patton, 2002). We attended sessions to present the study and recruit participants
20 face-to-face. Six focus groups were conducted between May and July 2012 and lasted 40-50
21 minutes.

22 An interview guide was developed to ensure consistency. The semi-structured format allowed
23 participants to raise and explore related topics and issues. The opening question asked

1 participants for reflections on their experience of attending groups or activities. The main
2 elements of the guide focused on the decision to participate including motives; barriers;
3 expectations; positive experiences; negative experiences and the impact on day-to-day life.
4 An outline of the ACE intervention was provided (see Appendix 1) and participants were
5 asked for their first impressions; ACE's suitability for older adults; recommended methods of
6 recruitment; potential barriers to participation; enablers; ACE intervention structure and
7 content. Two pilot interviews were first conducted with members of the target group. This
8 process led us to refine the language used in the interview guide and to adopt a lay-person's
9 language where needed.

10 **Data source 2 – Interviews with older adults who were experienced volunteers (Older**
11 **volunteers, n=9)**

12 Older volunteers were recruited via the community organisations for whom they volunteered.
13 A cross section of voluntary organisations and roles were purposively selected to reflect a
14 range of age, gender, and volunteering experiences (Patton, 2002). These included walk
15 leaders, lunch club cooks and befrienders. Selected organisations approached suitable study
16 participants and sought their permission to be contacted by the study team. Semi-structured
17 interviews were conducted between May and July 2012 in local community centres or at
18 participants' homes, and lasted 30-40 minutes. The same interview guide was used as for the
19 focus groups with the addition of an opening question exploring the reflections on
20 experiences of volunteering.

21 **Data source 3 – Focus group with managers of volunteering initiatives (Volunteer**
22 **managers, n=4)**

23 Volunteer managers were identified through established communications channels with
24 major local service providers. One focus group was conducted in August 2012 with

1 professional volunteer managers from major UK statutory and third sector organisations; Age
2 UK, Bristol City Council, LinkAge and Contact the Elderly. The interview guide explored
3 volunteer managers' experiences of recruiting, managing and working with volunteers,
4 recruiting participants into programmes and their opinions of the ACE intervention structure
5 and content.

6 **Analysis**

7 JW and JdK used Framework Analysis to code the data within the themes directed by the
8 interview topic guide (Ritchie, Lewis, Nicholls, & Ormston, 2013). Additional themes and
9 subthemes were identified as the data were analysed. The resulting coding structure was
10 assessed by AS and other members of the research team, which guided the coding of the
11 remaining data. Finally the derived themes for all three sets of data (older group participants,
12 older volunteers and volunteer managers) were compared and similarities and differences
13 were identified. The interpretation and analysis of the data were discussed and agreed by all
14 seven authors (Gale, Heath, Cameron, Rashid, & Redwood, 2013).

15 The development of a coding scheme and a code checking protocol supported the
16 dependability of the data. The data triangulation allowed for a comparison of the findings
17 from two different methods of data collection and three different participant groups. This
18 process allowed patterns of convergence to emerge and supported a comprehensive
19 interpretation of the multiple data sources (Pope & Mays, 1995).

20 **Results**

21 Twenty-eight older group participants (25 female, 3 male, aged 65-85yrs) who attended
22 community-based activities were recruited into focus groups (Data source 1). Nine older
23 volunteers (6 female, 3 male, aged 65-78yrs) who worked with local voluntary groups were

1 interviewed (Data source 2). A further focus group was conducted with 4 volunteer managers
2 (all female) (Data source 3). Participant characteristics are shown in Table 1.

3 The presented themes reflect the thematic structure of the interview guide: motivations,
4 enablers of and barriers to engagement with community groups/activities; motivations,
5 facilitators and challenges of volunteering; and reflections on ACE. Responses to the
6 presentation of the ACE intervention (see Appendix 1) were broadly similar across older
7 group participants, older volunteers and volunteer managers and these are presented together.
8 Any differences are described and discussed.

9 **Motives, enablers of and barriers to engagement with community groups/activities**

10 These themes, sub themes and supporting data are presented in Table 2. The reasons older
11 group participants chose to engage in community activities were almost entirely social. Their
12 participation led to a significant increase in social connections and relatedness. Some older
13 group participants actively sought opportunities to ‘get out of the house’ and engage with the
14 outside world. Enablers of engagement were social support, in particular a companion to
15 attend sessions with, and the availability of transport. Barriers to participation were not
16 having anyone to attend with, lack of confidence (particularly to attend alone), fear of
17 exclusion (from an established group) or ‘cliquiness’, bad weather and lack of access to
18 transport.

19 **Motives, facilitators and challenges of volunteering**

20 Older volunteers’ motives for engaging in volunteering activities included personal benefits
21 (‘something to do’, avoiding loneliness, a need to feel needed, enjoyment), altruism (to help
22 the older generation) and external reasons (being asked to help by a friend/peer) (Table 3).

23 The main positive impacts of volunteering were increased confidence, increased social
24 contact and a sense of achievement and purpose. Difficulties in volunteering included

1 negative interpersonal events such as disputes with those being supported and/or their
2 families, commitments to caring for grandchildren and high volunteering workload, which
3 several interviewees highlighted as an issue that is often overlooked.

4 Enablers of volunteering included confidence, local knowledge and provision of good support
5 to the volunteer. Hardly any barriers to volunteering were cited with cost, mainly relating to
6 petrol and mileage, being the only major disincentive.

7 **Reflections on the ACE intervention structure and content.**

8 The following themes, sub themes and supporting data are presented in Tables 4, 5 and 6
9 respectively. Data below reflect the views of all three groups of participants in this study
10 (older group participants, older volunteers and volunteer managers).

11 **Recruitment**

12 The ACE intervention was well received by all three groups and considered to be a highly
13 worthwhile intervention but the challenge of participant recruitment was recognised by all
14 interviewees who suggested a range of recruitment methods were discussed: Door-drops
15 (leafleting) had a mixed reaction, as although they could potentially reach those who are quite
16 isolated, they are often perceived as junk mail and dismissed. Recruiting at places where
17 inactive older people might gather such as churches and sheltered accommodation was
18 proposed, however individual face-to-face recruitment is time consuming and not always
19 well-received. A personalised approach (letter) and the use of local media were suggested.
20 Professionals and older volunteers advocated seeking referrals from General Practitioners
21 (family doctors), social services and third sector organisations. Free food and drinks were
22 commonly proposed to attract people to events. Table 4 shows the influences on recruitment
23 as reported by older group participants and Table 5 as reported by volunteers. In order of

1 prevalence these were transport issues and accessibility of activities; ambivalence and being
2 ‘set in their ways’; anxiety or lack of confidence to engage with groups or activities;
3 availability of a choice of appealing activities; security concerns and cost of attending
4 sessions and petrol and mileage.

5 The volunteer managers discussed the issues of recruitment and management of volunteers in
6 depth. Key mechanisms proposed for recruiting volunteers included word of mouth via
7 existing volunteers; recruitment of group participants; via community groups and events;
8 local media and volunteer recruitment organisations/websites (see Table 6). A face-to-face
9 conversation, an email exchange, completion of an application form, emphasis of the
10 commitment required and taking up references were all suggested elements of the screening
11 process. While retired volunteers often had low drop-out rates, issues of care of grandchildren
12 during school holidays could arise. An emphasis on the altruistic nature of volunteering was
13 also suggested as a motive for involvement. Paying expenses was thought to be an enabler of
14 a wider range of people volunteering. Experience showed that beyond the ‘compulsory’
15 initial training volunteers’ engagement with on-going training should not be time consuming
16 whereas adding a social dimension may be an incentive. Older volunteers emphasised the
17 importance of volunteers being thanked and appreciated. Having volunteer coordinators
18 available to help deal with problems, including over-demand from participants, was regarded
19 as more important than regular face-to-face supervision.

20 **Meeting schedule and time commitment**

21 The initial ACE intervention proposed 8-9 meetings between ACE Activators and their
22 participants over 6 months, starting weekly then reducing. There were concerns from all three
23 groups that this wouldn’t be sufficient to firmly embed participants in community activities.
24 Flexibility and reacting to individual participants’ needs were suggested. Regular meetings

1 were preferred to support habit formation. Flexibility was suggested to work around existing
2 commitments.

3 The initial version of the ACE intervention suggested that each Activator work with 4-5
4 participants. This was considered too large a commitment by the older volunteers. Starting
5 with one or two participants and then building was advised.

6 **Sustainability**

7 The ACE intervention aimed to use two mechanisms to sustain behaviour change. The first
8 was to establish participants as regular attendees at activities and to support the building of
9 social connections, thus enabling the Activator to gradually withdraw. Older volunteers in
10 particular acknowledged that dependency could become an issue and that ‘stepping back’
11 should be supported. The second element was the forming of ACE participant groups to offer
12 peer support and build an ‘ACE identity’ and sense of belonging. This was widely considered
13 to be a beneficial approach without overlooking the individual participants’ preferences and
14 readiness to change.

15 **Communication**

16 Computer and mobile phone use was slightly more common amongst older volunteers than
17 older group participants. However, many of those who owned mobile phones commonly kept
18 them for family use and/or emergencies and they were often not checked regularly. Very few
19 older group participants used a computer regularly and most considered this to be common
20 amongst their peers.

21 **Discussion**

22 The aim of this study was to seek feedback and guidance by end-user representatives (older
23 group participants and older volunteers) and stakeholders working in the area of volunteering

1 (volunteer managers) to further develop and refine a volunteer-led active aging intervention.
2 While it specifically informs the refinement of the ACE intervention, by reporting the barriers
3 to, and enablers of, community activity engagement and getting out and about it also provides
4 guidance for the development of other active aging community interventions. The findings of
5 this study led to significant changes in the structure and content of the ACE intervention as
6 outlined below.

7 **The ACE intervention**

8
9 The literature indicates that interventions with high contact frequency increase the likelihood
10 of behaviour change (Greaves et al., 2011). However, in a public health setting this needs to
11 be balanced with financial constraints and programme sustainability. The number of meetings
12 between Activators and participants suggested in the initial ACE intervention was regarded as
13 too prescriptive. Therefore, the intervention was adapted to guide Activators to provide
14 support flexibly until participants became confident to attend activities alone.

15 The power of a group setting in facilitating engagement in organised activities is well-known
16 (Burke, Carron, Eys, Ntoumanis, & Estabrooks, 2006). The findings of this study stressed the
17 importance of social interaction among the ACE intervention participants as well as between
18 activators and their supported participants. As a result, the number of opportunities for ACE
19 participants to meet each other was increased to facilitate the formation of social networks
20 and build an 'ACE' group identity, defined as a shared sense of belonging to the ACE group.
21 However, it was stressed that the Activators' training should actively consider individual
22 participants' preferences, confidence and readiness for forming ACE groups.

23 The initial ACE model anticipated that each Activator would support 4-5 participants. The
24 findings of our study indicated that this was likely to be too great a burden and that a more
25 manageable number would be 2-3 participants per Activator as a maximum.

1 This study highlighted the importance of participant autonomy and therefore it was decided
2 that although the scheduled meetings would be regular to help participants establish routines,
3 they should be arranged around participants' schedules and not be pre-set. Free and low cost
4 activities were incorporated into the list of local activities provided. This list was intended to
5 be a dynamic, allowing participants to add their own knowledge of local initiatives and
6 further enhancing their autonomy.

7 Forty per cent of older adults use e-mail or text messaging and 42.7% use the internet, with
8 higher usage associated with younger age, male gender, white race and higher education level
9 (Gell, Rosenberg, Demiris, LaCroix, & Patel, 2013). However, data from this study indicated
10 that mobile phones and computers are only used regularly by a minority of the target group,
11 indicating decisions based on national statistics should be made with caution for this cohort.
12 As a result, it was decided that ACE intervention would primarily rely on paper-based
13 methods of communication while monitoring the use of electronic devices for future
14 intervention adaptations.

15 **Recruitment**

16 Recruitment is an issue that confounds the potential impact of many public health
17 interventions (Stineman et al., 2011; Withall et al., 2012; McHenry, Insel, Einstein, Vidrine,
18 Koerner, & Morrow, 2015). It was the first issue raised by most older group participants and
19 older volunteers; '*How would you get these people to come?*' Clearly effective recruitment
20 strategies tackling the major barriers to participation (lack of motivation, confidence and
21 readiness to change, transport issues; security concerns and cost) were essential if the ACE
22 intervention was to be fully tested as a feasible community-based public health intervention.
23 The ACE recruitment materials and the Activator training programme were refined to focus
24 on addressing these barriers.

1 A lack of confidence or competence amongst potential participants has been shown to
2 negatively impact engagement, particularly in physical activity (Costello, Kafchinski, Vrazel,
3 & Sullivan, 2011). This issue was commonly cited and reinforced the importance of ACE's
4 focus on 'getting out and about more'. Low confidence often leads to a powerful reluctance
5 to attend an unfamiliar group alone (Crombie et al., 2004; Withall et al., 2012), with a
6 particular fear of feeling excluded by a long-established social network or 'cliquiness'. This
7 data strongly supported the ACE intervention focus on providing 'someone to go with' (the
8 Activator) as a means to tackling concerns about attending alone, and providing an ally in
9 establishing connections with the group. ACE recruitment materials were adapted to highlight
10 the provision of this support to help those affected overcome this barrier. In addition a focus
11 on day rather than evening activities and a reference to the involvement of all academic
12 institutions involved were added to the materials to tackle any security concerns.

13 There is significant evidence that ambivalence and being 'set in their ways' negatively
14 impacts the adoption of improved health behaviours amongst older adults (Crombie et al.,
15 2004; Moschny et al, 2011). This was tackled in the recruitment materials by placing more
16 emphasis on the breadth of activities available, through providing several examples of groups
17 and programmes to suit a wide range of interests. Opportunities for socialising are a powerful
18 motivator for older people to engage in activities and the findings of this study strongly
19 supported this (Devereux-Fitzgerald et al., 2016). This became a major focus of the ACE
20 intervention recruitment materials, as was the role of the 'Activator' as an important source
21 of social support and social interaction.

22 Many of the recruitment mechanisms proposed in this study have been routinely tested as
23 methods of recruitment into research (Knechel, 2013; McMurdo, Witham, & Gillespie,
24 2005). However, despite direct, personalised invitation to participate being a relatively
25 successful means of recruiting research participants, it is not an approach commonly used in

1 public health programmes. Based on the findings of the study it was decided that the ACE
2 recruitment process would include direct approaches to sheltered housing complexes; the
3 seeking of referrals from social services, churches and a wide range of community groups
4 and the utilisation of local media (newspapers and radio), but that the main thrust of the
5 recruitment strategy would be a personalised mailed invitation supported by a leaflet door
6 drop.

7 Volunteers are vital to many community-based interventions (Time Bank, 2015), without
8 whom success and sustainability are jeopardised. However, there is limited literature
9 available to provide guidance on maintaining commitment and avoiding drop out. The
10 findings of this study indicate some key strategies for tackling these issues. These include
11 making the level of commitment required clear at recruitment; establishing a thorough
12 screening process ideally incorporating an application form; providing a detailed and realistic
13 role description; organising a face-to-face meeting and requiring references. The older
14 volunteers stressed that overburdening volunteers with supervision and training should be
15 avoided. As a result Activators' supervision meetings were organised in groups rather than
16 one-to-one, incentivising attendance with an opportunity for social interaction and exchange
17 of experiences, successes and challenges. The identification of the importance of high quality
18 volunteer support led to the enrichment of the ACE intervention with a paid volunteer
19 Coordinator role who would provide Activators with support and advice, acknowledgement
20 and appreciation.

21 **Theoretical implications**

22 In accordance with the Process Model of Lifestyle Behaviour Change (PMLBC), the
23 theoretical framework of the ACE intervention, the findings highlighted that behaviour
24 change amongst the target group would not be a linear process and that specific attention had

1 to be paid to supporting motivation and activation *and* sustaining behaviour change (Gillison
2 et al., 2015).

3 In order to address these challenges we incorporated Motivational Interviewing techniques
4 (Miller & Rollnick, 2012) into the Activator training programme providing simple tools and
5 techniques with which to evaluate readiness to change and tailor the motivational plan to the
6 individual's needs. Adhering to the PMLBC, and based on the findings of this study, some
7 on-going face-to-face support and increased telephone support was also added to the
8 Activator role.

9 The findings of this study provide further support for fine-tuning the intervention to satisfy
10 the need for relatedness, autonomy and competence according to the principles of Self
11 Determination Theory (Deci & Ryan, 2002; Teixeira et al., 2012). As a result we included
12 limited-term support (6 months) with a detailed action plan for gradual disengagement of the
13 Activators to avoid creating dependencies. We enhanced relatedness with the provision of
14 social support via an Activator, the facilitation of relationships building at community
15 activities and the creation of ACE participant groups.

16 **Strengths and weaknesses**

17 The major strength of this study is the provision of an example of best practice in the
18 development of an intervention using a systematic multi-stakeholder approach with
19 Participant Public Involvement [PPI] at its heart. Using a rigorous approach, this study
20 identified a comprehensive list of factors that could positively impact recruitment and
21 retention of older adults and older volunteers into an intervention designed to increase
22 physical activity and community engagement. This study also described the process of
23 refining an intervention, addressing practical issues and increasing the possibility for success.

1 The three groups of participants (older group participants, older volunteers, volunteer
2 managers) were recruited via different recruitment strategies, with the aim of developing an
3 in-depth understanding of a phenomenon (engagement in community groups and activities)
4 rather than making probabilistic generalizations to a population (Popay, Rogers, & Williams,
5 1998). The different perspectives reported show the importance of having such a broad range
6 of inputs which is a key element of all phases of ACE development.

7 All recruited participants in this study had experiences of engaging with some form of
8 community activity. They might not have provided a full account of the barriers people who
9 never engage with such activities might face. However many participants only engaged with
10 one group and were able to present the challenges of engaging with unfamiliar groups. In
11 addition people who volunteer to participate in active aging studies may differ from those
12 who do not as they are usually more physically and socially active, healthy and have higher
13 socioeconomic status. Finally, all participants were white British; this limits the
14 generalizability of the findings as they are not reflective of the views of ethnically diverse
15 older adults.

16 **Conclusion**

17 The initial ACE intervention was refined using a systematic multi-stakeholder approach and
18 with close adherence to guidelines for developing complex interventions. This rigorous
19 approach led to the refinement of the ACE intervention in order to be tested at a subsequent
20 stage for feasibility and acceptability via a pilot study. The fact that ACE is rooted in
21 community thinking with PPI at its heart increases its potential to transfer successfully to a
22 community setting, once effectiveness and cost-effectiveness have been established. The
23 findings also provide guidance for similar community initiatives by highlighting the
24 importance of effective recruitment strategies that tackle major barriers (lack of motivation,

1 confidence and readiness to change, transport issues, security concerns and cost); offering a
2 range of appealing activities; actively supporting increased social interaction and providing
3 social support to attend. In volunteer-led schemes being clear about the level of commitment
4 required and thorough screening are key, while excessive supervision and training should be
5 avoided. Volunteers appreciate being well-supported and having their contribution regularly
6 acknowledged.

7 The positive reaction of all stakeholders towards the ACE intervention indicates that there is
8 a strong potential for peer volunteering approaches developed using the Process Model of
9 Lifestyle Behaviour Change and underpinned by Self-Determination Theory, to support older
10 adults in engaging in community activities. This theoretical framework will be evaluated
11 through a rigorous process evaluation in subsequent studies.

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26 Tables

- 27 Table 1 Demographic characteristics of older adults (Data source 1) and older
 28 volunteers (Data source 2)
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 30 groups/activities (Data source 1 – Older group participants n=28)
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 32 volunteers n=9)
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 34 reflecting on the ACE intervention (6 groups, n=28)
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 36 ACE intervention (n=9)
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 38 the ACE intervention (n=4)

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Table 1 Demographic characteristics of older adults (Data source 1) and older volunteers (Data source 2)

	Focus group participants (Data source 1) (n=28)		Interview participants (Data source 2) (n=9)	
	Mean	Range	Mean	Range
Age (years)	72.6	65-85	70.8	65-74
	N	%	N	%
Gender (female)	25	89.3	6	66.7
Ethnicity (White British)	28	100	9	100
Education				
Secondary education	18	64.3	6	66.7
Vocational training	8	28.5	3	33.3
College or university education	2	7.2	0	0
Marital status				
Married	12	42.9	3	33.3
Widowed	15	53.6	4	44.4
Divorced/separated	1	3.6	2	22.2

Table 2 Motives, enablers of and barriers to engagement with community groups/activities (Data source 1 – Older group participants n=28)

Main theme	Sub theme	Sample data
Motives for participating	Socialising	<i>FG1 I came looking for company</i> <i>FG3 P4 It's the people isn't it? Keep Fit it keeps you fit and also you're meeting....</i>
	Getting out and about	<i>FG2 P4 It's getting you out, out of the home and meeting other people</i> <i>FG3 P3 You sort of think well I don't want to sit in the chair and die do I? You want to get out and about.</i>
Impact of participation	Increased social contacts	<i>FG1 I've just loved it and I've made so many friends here.</i> <i>FG1 When you're singing you forget everything and when you've got problems you've got friends here, you can talk to them.</i> <i>FG6 P4 I just love it really. You meet people, you have a chat. Definitely it's good for the morale.</i>
	Enjoyment	<i>FG5 P2 And we have a laugh, P3 And quite a few of us are on our own anyway, P1 It's companionship isn't it</i>
	Increased chances to get out and about	<i>FG3 P4 I think no I've got to go out. I go mad if I stay in all the time.</i> <i>FG3 P4 It keeps your mind as well..that's important.</i>
Enablers of activity participation	Socialising	<i>FG2 I think the social side of things is more important than the exercise.</i>
	Social support	<i>FG4 P1 I'd feel I needed someone to take me. Otherwise I'd feel I was pushing in.</i> <i>FG2 P1 Well I came with a friend. I think you need some support</i>
	Transport	<i>FG4 P3 If there's anything going on through the church, trips and things like that she'll always offer us a lift.</i>

Barriers to activity participation	Lack of confidence	<i>FG2 P4...on your own you don't know who you are going to meet</i>
	Lack of social support Sense of exclusion	<i>FG3 P4 Nervous, I'm always nervous the first time I go anywhere ...as long as you've got someone to go with</i> <i>FG4 P1 It's open to everybody except me..</i> <i>FG3 P4 I know people who've gone, even to churches and it's very cliquy, no-one talked to them and then that's it isn't it</i>
	Weather	<i>FG3 P1 We had that in the club 'Oh don't sit there that's so and so's seat' and I said 'it's anybody's seat'</i>
	Transport	<i>FG2 P3 Unfortunately it's to do with the weather because people don't get about if it's raining.</i> <i>FG2 I can't get around to get to the bus stop...it's such a long way to walk. I go to things that are near by.</i>

Table 3 Motives, facilitators and challenges of volunteering (Data source 2 – older volunteers n=9)

Main theme	Sub theme	Sample data
Motives for volunteering	Something to do	<i>I1: I'd just taken early retirement so... I was looking for something to do</i>
	Avoiding loneliness	<i>I3: if you're volunteering you meet people, make friends with people ,</i> <i>I2: I was determined I was not going to get isolated and lonely.</i>
	Altruism	<i>I10: it's time we took the older ones (forward) as well'</i>
	Peer influence	<i>I11: (A volunteer) asked me if I could give her a hand... Here I am!</i>
	Feeling needed	<i>I10: To be needed myself is very important...he says that Monday morning (befriending visit) is the highlight of his week.</i> <i>I2: Without fail their final word is... don't forget to ring me next week and don't ever pack this in .</i>
	Enjoyment	<i>I3: I loved being busy every day</i>
Impact of volunteering	Confidence	<i>I6: Definitely oh yea, I can talk to anybody now</i> <i>I10: ... (Organising walks) it's constantly expanding my inquisitiveness, my search for ideas ...It's broadened me tremendously.</i>
	Social	<i>I9: It's just nice to say hello and 'how are you?' ...it is a nice little casual friendship.</i>
	Sense of achievement	<i>I3: People saying thank you really. Isn't it? It's great ,</i>
	Purpose	<i>I6: That makes me feel really good, I've gone something good today. I made an old man happy. I look forward to the next day now.</i> <i>Instead of thinking... 'what on earth am I going to do with my life?'</i>
	Negative interpersonal events	<i>I11: When they moan. 'I don't like this walk' and 'it's raining', well I have no control over it ,</i> <i>I2: (lady's son said) 'there's no need for you to come in here...' it made me feel, that he thought I was after her.. money</i>
	Workload	<i>I3: In the end, it got too much for me then, and I just gave it all up because I felt a bit ill then ...I've retired gracefully ,</i>
Enablers of volunteering	Confidence	<i>I10: I've worked with children who've had problems and I think that too has added to my confidence,</i> <i>I3: (what was good about the management?) You've only got to ring em up and they're there.</i>
	Knowledge	<i>I1: Best management to manage volunteers? You've got to listen.</i>
	Support	<i>I9: It's the motivational side. .someone staying interested in the fact that you're doing it, makes <u>you</u> interested in carrying on.</i>
Barriers to volunteering	Cost	<i>I6: I just can't (do it without petrol money). I'm only on a low pension at the moment.</i> <i>I2: if I didn't have the bus pass... on a pension ...you just wouldn't be able to do it.</i>

Table 4 Data source 1. Results from focus groups with older group participants reflecting on the ACE intervention (6 groups, n=28)

Main Theme	Sub-theme	Sample data
First reactions to ACE		<i>FG6 No, it's very worthy and I hope it's successful</i> <i>FG6 It's a good idea</i>
Potential influences on	Transport	<i>FG2 It's all very wellbut if you can't get to the places it's rubbish really</i> <i>FG2 Well I think the essential thing is the transport.. It's all very well hearing of all these nice things if you can't get there.</i>

participant recruitment	Lack of confidence	<i>FG1 Some people are incredibly shy and don't really want to get involved with others. Some do tend to retreat within themselves.</i>
	Lack of motivation	<i>FG3 I think lots of people would like to do things but can't get that step forward. FG5 There's a lot would rather be on their own, they don't want to participate FG1 Some people think they've done enoughFG6 They get like that. They just see an invitation and they just recycle it. My mum got like that.</i>
	Availability of activities	<i>FG1 You need a choice of activities going on, because I can imagine there's some places where there's not much happening FG2 It's just knowing what's available for a lot of people.</i>
	Fear	<i>FG4 The main mentality of the older age group is 'I don't open my door to anyone' and you see on the doors No cold callers, Not only have you got to be sure the Activators are honest you've got to break down that mentality that everybody is dishonest ..</i>
	Cost	<i>FG5 Everything costs money. People go to a couple of them. They can't get to it all can they, because it all costs money.</i>
Recruitment methods	Challenge of recruitment	<i>FG2 How would you get these people to come? FG5 How are you supposed to find them if they never go anywhere?</i>
	Leafletting	<i>FG2 Lots of people would like to do things but can't get that step forward... if something went through their door they might think oh I'll ring that FG3 With leaflets not everybody reads them.</i>
	Via community groups	<i>FG3 We're lucky here because we come to church and you get told what's going to happen through the week. FG6 I think you're going to have to go into existing groups really – and extend that. They will all know somebody who...</i>
	Personalised mail	<i>FG3 Our history lady she always writes to us doesn't she?</i>
	Local newspapers	<i>FG3 I always if I'm on the bus pick up a Metro. You see things in there.</i>
Refreshments	<i>FG1 I think food is always good, food available and drink.</i>	
ACE structure	Number of meetings	<i>FG1 Well I don't think a couple of weeks (at once a week)would be sufficient because they've only just got into their heads that they are going out. I think a month – 6 weeks would be better than 2 weeks because ...they've got to get into the habit of going FG3 Meet 3 or 4 times then make an adjustment if you need to, ask them 'what do you think', get some feedback.</i>
	Scheduled or flexible	<i>FG1 I would certainly prefer to know if it was every Wednesday or every Tuesday. I would prefer it to be scheduled ... FG1 On a regular basis they are perhaps more likely to do that and to get into a habit</i>
	Venue	<i>FG6 At the person's home? Some people are cautious about ... With vulnerable adults..you have to be very careful on one to one.</i>
Forming participant groups	Gradual process	<i>FG1 They ought to get to know their Activator first and before they become part of the wider group. I think that might be ..better. FG5 You get a volunteer to go see 3 people and then there's another volunteer that goes to see a different 3 people and then they could say 'Right shall we all try and get together and have a cup of tea' So you've got 6 people who are meeting for a cup of tea</i>
Communication methods	Mobile phones	<i>FG2 I can but I don't give my number out to anybody except for family...if I fall down FG5 I've got one... I can't use it</i>
	Email/internet	<i>FG3 Most people have got their phones and computers it's just that we haven't FG1 When you are dealing with older people you have to bear in mind that more 70 year olds don't use computers</i>

Table 5 Data source 2. Results from interviews with older volunteers reflecting on the ACE intervention (n=9)

Main theme	Sub theme	Sample data
First reactions to ACE		<i>P2: I don't think it's good I think it's more than that, I think there's a <u>need</u>, I think there is a <u>need</u> for it. P9 I think the idea behind it is good, all these bridges are very important, P10: I think it's a wonderful, wonderful idea</i>
Participant recruitment	Ambivalence	<i>P5: It's a good idea, the only thing is ...the people you're trying to get to is often the hardest people to get to... I don't want to sound pessimist, your biggest problem is getting to these people really. P6: I don't know how you will persuade someone to go out...but it does take a huge step</i>
	Lack of	<i>P2 when you haven't done it for ages you get this thing about.. 'I wonder if I'll like it, I wonder if anybody will be there'</i>

	confidence	<i>P2: 'I'm too old', it's their mental attitude, 'I'm retired, I'm retired not, I can't do that', 'I can't do this', 'I can't do that'.</i>
	Other commitments	<i>P5 It's quite surprising how many people although they're retired, are committed... 7 days a week, for grandchildren. If you've got grandchildren in school, all that sort of thing. It does happen</i>
Recruitment methods	Referrals	<i>P2 I mean that's the way you're going to find out, the Social services and the NHS, P5: ... the only way you can do it is to go um to... the local GPs.</i>
	Direct contact	<i>P1 Block knocks. Knock on every door in every tower block.. and just listen. You see what they say. We've had a <u>tremendous</u> success with ...that. We entered the blocks, we listened.. we listened to what they said and we did it.</i>
	Media	<i>P2: The media is very good to use, we don't use it enough as far as we're concerned. The local press, you know ...and but photos and those sort of things, that would be, there would be photos in the paper and people would say 'oh what's that'</i>
	Leafletting	<i>P5 I did a lot of work, I went everywhere I went to every church in the area, I think the best form of advertising, especially these days quite frankly, is leaflets through doors. I don't think how else you could do it other than a leaflet drop.</i>
	Personalised mail	<i>P10 : Older people like letters and cards. With our folk quite often a letter will go out, or a card will go out, they love that. 'oh it came through the post' (laughs), and it's really, really important that it's hand written. I want to open it then.</i>
ACE structure	Frequency	<i>P6: I think it's at least once a week. A week is a long time, sitting on their own. P10 I think you are right that you would need 3 or 4 meetings and then you could step back for a while, otherwise the person you are meeting with will become too reliant on you, and that would be a danger in a one to one situation.</i>
	Forming participant groups	<i>P10: I think the activator will know when the time is right to bring the folk together, it may be 'well I'll bring those two together', and see what happens, and then 'let's see if we put the other two together', but the activator will become very aware of the needs. P6: little groups together? That would be a good idea.</i>
	Workload	<i>We expect each volunteer to support 2 or 3 people, do you think that's too much? P6: That's probably too much. You should start off with one and move on from there.</i>
Managing volunteers	Peer support	<i>P1 It will build them a support system, by being together, and also it will be an opportunity to exchange information.... P9 I think initially, possibly when people are unsure about how it's working and perhaps get a little thing going, to help thank,</i>
	Supervision	<i>P4: Um.. once every 6 weeks or something? You wouldn't want it too often P9: I don't know, we did try during a volunteer ... meeting and that didn't really get off the ground you know, so...</i>
Role of coordinator	Providing someone to talk to	<i>P3 It would be nice to have a back up, somebody call you and see how it's going, and vice versa. P10: ... A listening service (laughs) first and foremost. P1 Best management manage volunteers? you've got to listen...and always leave them a <u>way out</u>. Very important.</i>
Communication	Internet/email	<i>P1 People use phones and um, people send me emails, I don't read them, I'm a dinosaur I like to talk to people.</i>
	Mobile phones	<i>P6: I think I've put a fiver on it since I've had it. 2005. It's in my hand bag, I never use it. P2 I use it myself, but what I'm saying is you'll find that because some people can't they'll say 'oh can't use the computer'</i>

Table 6 Data Source 3 Results from focus group with volunteer managers reflecting on the ACE intervention (n=4)

Theme	Sub theme	Sample data
Volunteer recruitment	Word of mouth	<i>P1: Word of mouth is a huge one ... if your neighbour or your friend has done it..</i>
	Referrals	<i>P2: So it's agencies working together, knowing about each other and referring people on,</i>
	Utilising group participants	<i>P3: we have a sort of 'Grow your own volunteer' model....people get involved in the scheme, get engrossed in the group and start to own it.... we encourage that, skill build, confidence build</i>
	Volunteer agencies	<i>P4: We advertise on VOSCUR (Supporting Voluntary Action) if we want to fill specific roles and utilise Volunteer Bristol a lot as well. P3: Working through the volunteer agencies people will come for a bit, they don't have that sense of ownership....</i>
	Press relations	<i>P1: We did get people through campaigns in newspapers.</i>
	Local groups/	<i>P3: I personally feel that the Neighborhood Partnerships are a really good source of support. ...they have various forums and monthly</i>

	organisations	<i>meetings and activators in the community.</i>
Screening volunteers	For suitability For commitment	<i>P1: We've got an application form, and I'll talk or have an email chat with somebody. We also take up two references. P3: We would go through the role with them and the tasks so they know whether they want to commit to it or not.</i>
Minimising volunteer drop out	Commitment Clarity of commitment Reinforce altruism Other commitments	<i>P4: Make it really clear. 6 months, have that end goal (the ACE commitment would be 12 months) P2: Just having to fill in that form and think about the commitment all helped weed out the ones that aren't bothered. P1: You'll be surprised most people will probably stick the course if you are up front at the beginning about the commitment involved and what the role involves as long as you give people enough information. P3: Its the altruistic element of volunteering so the more you reinforce that and how worthwhile volunteering is then people will continue P2: You should definitely find out whether they have any child care responsibility because some volunteersbasically can't do a lot of volunteering during the summer holidays because they have to look after their grandchildren.</i>
Volunteer training	Formal or informal Take up Recognition	<i>P1: I meet all the volunteers that can make a day...I'll go through the manual and answer lots of questions. We don't do formal training. P1: To be honest the take up has been a bit disappointing... and they are usually the ones who are more engaged P3: We put on all sorts of wonderful training and think people will be really interested...the take up is quite bad (Yeah) P3: It is how you package it, there has to be something that is appealing to them, rather than a formal training session. P3: it's a recognised training. Something that they feel proud they've actually achieved, although it's not an onerous training it's practical as well, and at the end of that day they all go away feeling ..so it's a booster.</i>
Managing volunteers	Low take up of supervision Non face to face contact Peer support	<i>P4: ...we invite them to meetings once every six months but take up isn't brilliant. Group supervision is a really good time saving tool. P3: We have a volunteer forum. It was a good idea but unfortunately the take up wasn't brilliant so after about a year it just stopped....the take up is low P3: I think the trust has been built to the extent that we don't necessarily have to see them regularly they just know they can call. And we support with lots of communication, newsletters, bulletins and emails... volunteer thank you events so they feel recognised and supported P1: I couldn't possibly talk to all my volunteers, the coordinators are my point of contact...if they've got a problem they can come to me P2: Peer support can be really, really useful. The same issues come up, the same questions. It's just incentivising them to do it really P2: It is nice for them to be able to get together and talk about their individual experiences</i>
Participant recruitment and retention	Recruitment methods Transport	<i>P2: The community mental health team...they might be able to help you... Community Police Support Officers? P3: The Council Housing and Tenancy support network is very good. Health Centres have newsletters that go out. P2: That's usually when they stop going to things when they can't get transport. That's a huge issue. P2: What if it's raining and the bus doesn't turn up</i>
Volunteer (Activator) role	Workload	<i>Every Activator would have four to five participants to support? P2: That's quite a lot of visits for one volunteer in a week. P1: You might find that once people have met with someone a few times they might be more confident to take on more people.</i>
ACE structure Meeting venue, scheduling	Venue Organisation Communication Participant group meetings	<i>P1: If they have lost confidence or are scared of getting out then ... go to their homes, have a cuppa with them P1: Flexible, that the two people can arrange together P2: I'd say don't exchange numbers. That keeps an appropriate distance between people. The coordinator could be the go between P2: And I suppose it could compare the goals they'd been set as well... Talk about what groups they might be getting involved in, what they'd like to do. Like Weight Watchers where everyone motivates everyone else. P3: Could be very simply over a coffee...you get the people together and they don't feel like they're being pushed into something.</i>
Role of coordinator	Skills Responsibilities	<i>P2: I've put in the role to build team spirit and have occasional get togethers with the befrienders.... the coordinator can facilitate that. It's quite a special role ..for someone has the social and organising skills P2: The coordinator could keep an eye on the boundaries between volunteers and participants and make sure they are not becoming too involved, and that the older people aren't making unreasonable demands on them. P3: An audit of what is available locally. The coordinator could work with other local contacts to do that.</i>

