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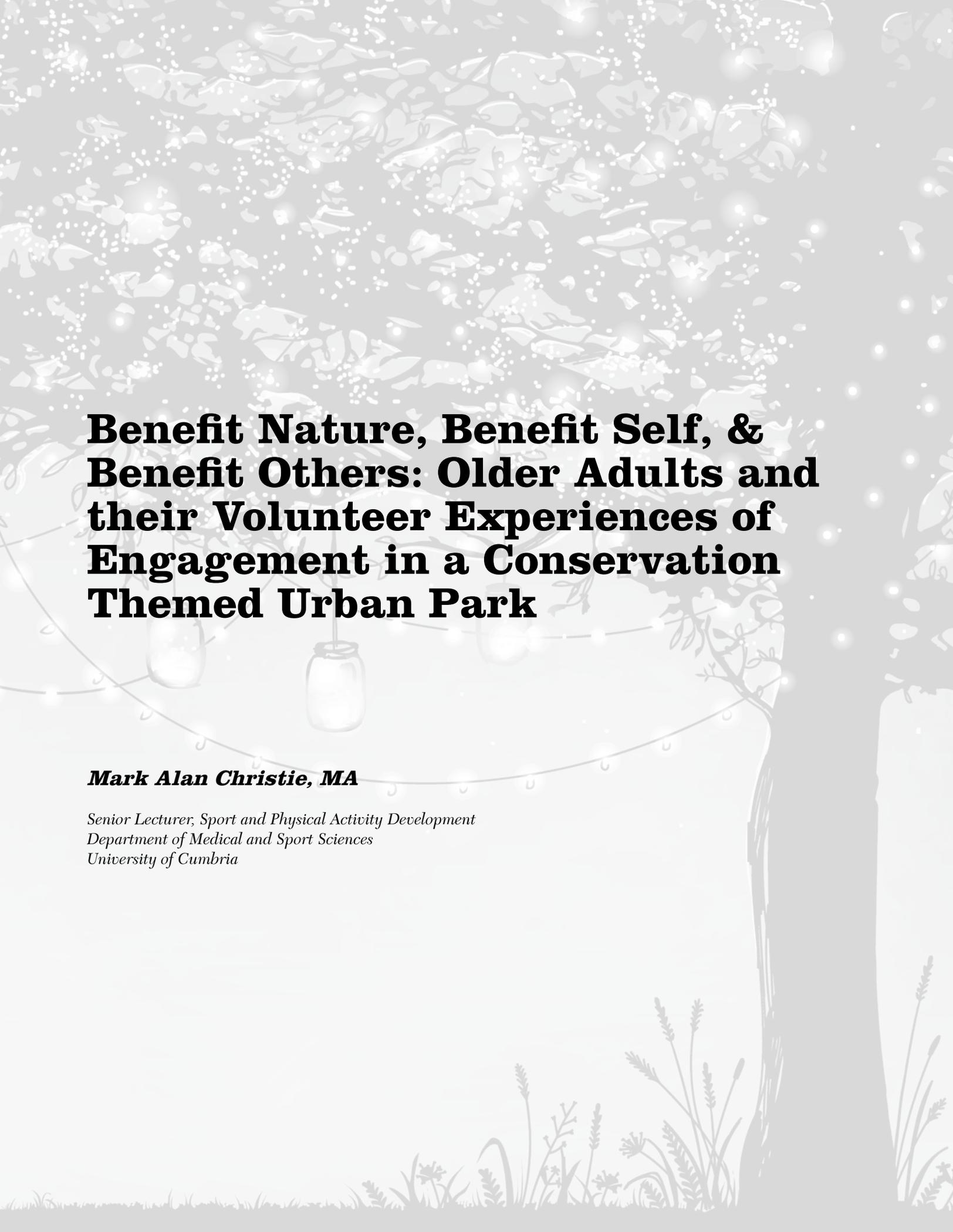
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# **Benefit Nature, Benefit Self, & Benefit Others: Older Adults and their Volunteer Experiences of Engagement in a Conservation Themed Urban Park**

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*This paper, utilizing a qualitative methodology, offers further insight into the concept of restorative natural environments by investigating the experiences of five retired and semi-retired volunteers (mean age 65.6 years) involved with a community conservation-themed project in an urban park in the north of England, United Kingdom.*

*The volunteers were purposely selected based on their long-term engagement with the specific conservation project. The study was comprised of data collected through interviews and a focus group in the park setting at various timelines throughout the project. Thematic analysis identified three overarching themes: perceived health benefits from participation in a nature-based activity; self-reported enhancements to personal, social and community capital; and motives for initial engagement and sustained participation. Various factors relating to how volunteer participation was sustained were highlighted, including: empowerment, social connectedness, access and purposefulness, as well as a non-pressurized activity—with implications for the design of similar community-based ‘green exercise’ interventions. Findings further suggest that involvement in conservation-themed volunteering appears to bestow ‘green transformational’ outcomes for the individual, group and community, manifested by perceived enhancements to personal, social and community capital, as well as overall health and wellbeing. Green transformations induced positive outcomes, such as assisting individuals make the transition into retired life; establishing new social networks; enhancing mental health; contributing to the renewal of the park; and the establishment of a new ‘Friends of the Park’ group to help fundraise for future small-scale*

*projects. Projects and initiatives of this ilk may therefore be beneficial in respect of promoting public health improvements for individuals attracted to more unorthodox and natural approaches.*

## Introduction

The project featured in this study can be classified as a form of ‘green exercise’<sup>1</sup> (Pretty et al 2007). Specific projects or initiatives involving green exercise in recent years have included ‘Walking for Health’ and ‘Green Gyms’. In the case of the latter, approximately 100 conservation themed projects are currently operating across the UK, with the explicit support of the Cabinet Office and Department of Health (TCV, 2015). Support by national government suggests that green exercise is showing growth towards the cutting edge of research-based evidence. Indeed, the Conservative UK Government’s wide-ranging sports strategy ‘Sporting Future: A New Strategy for an Active Nation’ acknowledges the use of outdoor recreation as an important element in achieving a more physically active nation (Cabinet Office, 2015).

### *The Greenfingers Project*

Urban parks constitute what is considered green space<sup>2</sup>. Based in the north of England (UK), the 54-acre park involved in this study included a managed woodland environment, along with more formal parkland and flower beds. The ‘Greenfingers’ initiative began as a six-week pilot project, operating every Thursday morning for two hours. Due to its specific focus on conservation activities, as well as having a clear focus in encouraging group activity, *Greenfingers* can be described as a ‘habitat’ green exercise initiative (Pretty et al, 2007). The project represented a successful, yet ongoing partnership between the local university, residents and city council, initially involving volunteers assisting with efforts to remove non-native plant species from a section of the urban park

(Photo 1, clockwise). Since then, numerous tasks have been undertaken by the volunteers, including the reconstruction of a bird hide, dredging ponds, clearance work (Photo 2), planting new flower beds (Photo 3) and other landscaping activities (Photo 4).

Due to the enthusiasm and varying levels of commitment, the volunteers sustained the project for five years with over sixty volunteers involved at various stages of its timeline. This degree of involvement reflects



**Photo 1**



**Photo 2**



**Photo 3**



**Photo 4**

<sup>1</sup> Green exercise comprises activities such as climbing, walking, gardening, conservation and horticultural activities – essentially any form of exercise conducted in the presence of nature (Barton & Pretty, 2010; Pretty et al, 2007).

<sup>2</sup> Loosely defined as ‘publicly accessible areas with natural vegetation’ (Lachowycz and Jones, 2013:62)

the growing interest in conservation volunteering noted by O'Brien et al (2008), partly as a response to society's increasing concerns regarding the onset of climate change, and arguably as people feel more empowered to contribute towards green agendas.

### *Activities*

Volunteering activities at the park encompassed a variety of tasks, including sawing, clearing, pruning, lifting and general tidying of designated areas for a 90-120 minute period one morning each week throughout the year.

### *Introduction*

Small and large urban parks are highly valued community assets which can facilitate beneficial health impacts (Peschardt et al, 2012; Schipperijn et al 2013). Their value has been recognized within research studies across the world (Larson et al, 2016; Zhang et al, 2015; Hordyk et al, 2015; Scopelliti et al, 2016). Carpenter (2013) highlights the role urban parks have played historically since the 19th century in promoting wellbeing amongst the masses.

Public health concerns have become exacerbated in more recent times regarding levels of inactivity among individuals within the population, and the associated risk factors of obesity, cardiovascular disease and mental illness. Therefore, identifying a broad range of vehicles for encouraging physical activity is important if public health is to be improved. In this respect, several authors have demonstrated in greenspace, such as urban parks, the benefits that green exercise can offer in terms of overall health and wellbeing (Coon et al, 2011; Pretty et al, 2007; Bowler et al, 2010). In addition, encouraging greenspaces enhances levels of communal interaction and connectedness (Maas & Verheij, 2007; Maas et al, 2008). There is also a persistent view that evidence based research about the benefits of horticultural activities remains somewhat equivocal in regards to the totality of benefits accruing from green exercise. Particularly, there is a lack of clarity regarding the specific mechanisms that facilitate these widely stated health impacts (Lachowycz & Jones, 2013).

This paper seeks to make the case for the wider promotion of volunteering in natural environments which may not only facilitate positive outcomes for an individual's physical and psycho-social health and wellbeing, but could also make a useful contribution in enhancing levels of social and community capital. Whilst research often identifies specific health outcomes

derived from volunteer engagement in natural settings, the precise mechanisms for such improvements are often left under-explored or unanswered (Jenkinson et al., 2013; Christie et al, 2015). This paper attempts to identify factors through the use of a qualitative methodology involving a small sample of older adult volunteers with long-term involvement in a community project.

### **Methodology**

Complex real-world settings do not lend themselves easily to the use of controlled experimental methodologies. Qualitative approaches are better molded to investigate such environments, and more specifically, identify how and why something works, not simply what it might achieve (Dugdill et al, 2009). Therefore, a qualitative approach (involving interviews and a focus group) was used to explore five individuals' subjective experiences of their volunteer engagement with the project. An interpretative phenomenological analysis (IPA) methodology was adopted, promoting an idiographic focus to the research undertaken, and thus giving prominence to participants' own understandings of self, others and activities within the practical business they were engaged in on a regular and longstanding basis (Reid et al, 2005; Silverman, 2010; Mason, 2003). This approach is particularly useful when investigating a specific phenomenon or intervention (green exercise), context (urban park) and a shared experience (participation in a community conservation project for a substantial time-period). The use of individual semi-structured interviews - and, despite some contention, small sized focus groups - are commonly associated with IPA research designs, via which the researcher deliberately set out to gain an insight into the participants' experiences and the personal impacts that might accrue from their volunteer engagement (Larkin et al, 2006). As such, the researcher adopted a flexible, curious and open-ended form of enquiry, quickly gaining the trust of the volunteers by working occasionally alongside the group monthly throughout each of the first four years. An ethnographic approach recording field notes and photographs documented and archived the volunteer work. This also enabled the researcher to have an insider perspective, which assisted the process of formulating relevant research questions to probe the experiences of the volunteers.

### **Participants**

Nine volunteers of varying age, gender and occupational status were recruited whom had one year or more

**Table 5***Background details of participants*

Participant (pseudonym)	Age	Gender	Current work status	Time as a volunteer at Greenfingers*
Jim	68	M	Retired	4.5 years (still attending)
Ruth	68	F	PT working/ semi-retired	4.5 years (still attending)
Alex	64	M	Retired	4 years (still attending)
Anne	73	F	Retired	4.5 years (still attending)
Jane	56	F	PT work	4 years (still attending)

\*At time of involvement in last mode of data collection

experience of the project (mean of ages 57.2 years). After being involved in the first round of data collection, four volunteers had left the project after eighteen months, either due to finding employment or a change in circumstances. The five remaining volunteers (mean of ages 65.6 years) thus formed the remaining sample for the study, and coincidentally, a closer age demographic. This meant the group's experiences were more closely related in age. Whilst the new sample size was arguably smaller, other studies investigating experiences of conservation volunteers have used as few as three participants (Birch, 2005). In the case of this investigation (conservation volunteering in an urban park), a smaller sample size allowed for an immersive element on the part of the researcher (working regularly alongside participants), as well as the 'depth' over 'breadth' argument, in which participants are involved in repeat interviews (Morse, 2000).

Subsequently, the remaining five volunteers were tracked over the next three years to follow up their experiences of involvement. This study therefore provides a longitudinal story of their engagement, capturing rich description from their point of view, and exploring their thoughts and feelings associated with involvement as a conservation volunteer. Data relating to the initial four volunteers was therefore unnecessary.

### Procedure

The five interviewees were involved with at least three of the data collection modes across a broad time-period,

with two volunteers involved in all four data collection modes. These modes included: short DVD interviews a year into the project's timeline to uncover motives for initial engagement, which were conducted in the cafeteria that also acted as a social opportunity at the conclusion of each session. This was followed by a focus group six months later to further explore factors relating to participation. Finally, two sets of individual and semi-structured interviews were conducted. The first meeting was conducted three years into the project timeline, and the second took place eighteen months later. Both follow-up interviews were completed in situ, with the researcher working alongside the volunteers during scheduled project time, and explored a range of issues in depth, based upon the fact that the volunteers now had a wealth of experience and connection with the project. The researcher conducted all interviews at different stages (Winter, Spring, Summer, Fall) throughout the year, so as to capture any seasonal impressions that may have influenced responses. Unanticipated issues were encountered in all data collection modes, and iteratively influenced the content. Collection methodology was refined in terms of language and enquiry (phrasing) throughout the interviews. The researcher also made observational notes to draw upon and relate transcribed findings to assist with triangulation of qualitative data. All data were transcribed in full and anonymized during the transcription process. All transcripts were checked for accuracy by replaying the interviews once transcribed.

## Data analysis

Transcripts were processed using Atlas-ti v6.2 Software, followed by training to make the most effective use of the technological aid (Mason, 2003). Coding categories were generated from the data, influenced by engagement with the literature, fieldwork experience and general lines of enquiry underpinning the research approach (Knight, 2002). Transcribing, encoding, and retrieving the data became an intensive, reflective and active process over several weeks, from which sub-themes were identified (Braun and Clarke, 2006). Not simply based on frequency, but also continuity—given the timelines used in this study. Codes and sub-themes were re-evaluated numerous times, and counter-examples were actively sought in different ways. For example, a cross-sectional approach was adopted, as well as a case-by-case method, recommended by Knight (2002). This process identified a range of themes that not only clearly mattered to the participants, but also revealed some of the meaning behind their experiences. The result was three overarching themes based in physical, mental, and social health.

### Trustworthiness

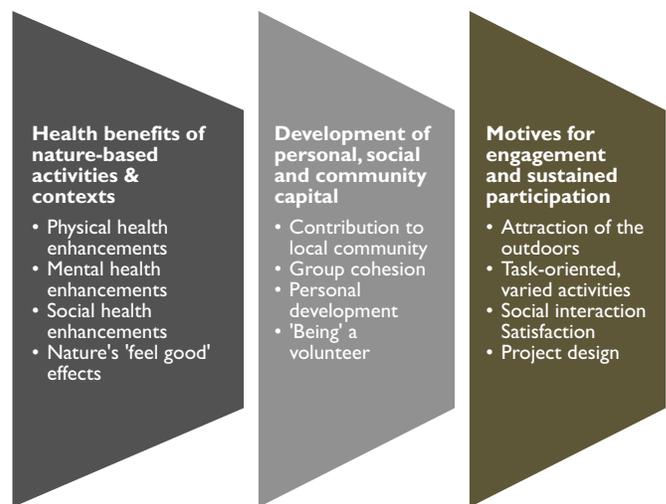
Trustworthiness was enhanced/instilled by presenting transcripts to all interviewees to check the accuracy of transcribed data, and by sharing initial findings with the volunteers at each stage. After a thorough review of the data, the researcher confirmed initial coding and development of semantic themes. Manual records were initially used, followed by software analysis to further deliberate upon identifying and confirming the codes and themes within the transcripts (Braun and Clarke, 2006). The final draft of the paper was also offered to the group to ensure the accuracy of content and provide time to reflect on their views and the context in which they had been operating within. Therefore, the process of member checking, triangulation and close attention to the data not only contributes to providing a clear audit trail, but also assists with the credibility and confirmation of the findings presented. Trustworthiness was further enhanced by use of direct quotations from participants, and the inclusion of participant demographic data. A clear audit trail exists, involving initial outlines of codes and semantic themes, followed by software-analyzed records. Furthermore, deliberations regarding identifying, defining, and confirming codes and themes were involved (Braun & Clarke, 2006).

### Ethical considerations

Full ethical approval was obtained through the university's ethics committee and appropriate informed consent was obtained with the undertaking that participants could withdraw their consent at any given time. They were informed of the specific methods being employed, including audio- and video-taping of interviews. Pseudonyms for each participant were used to promote anonymity.

### Findings

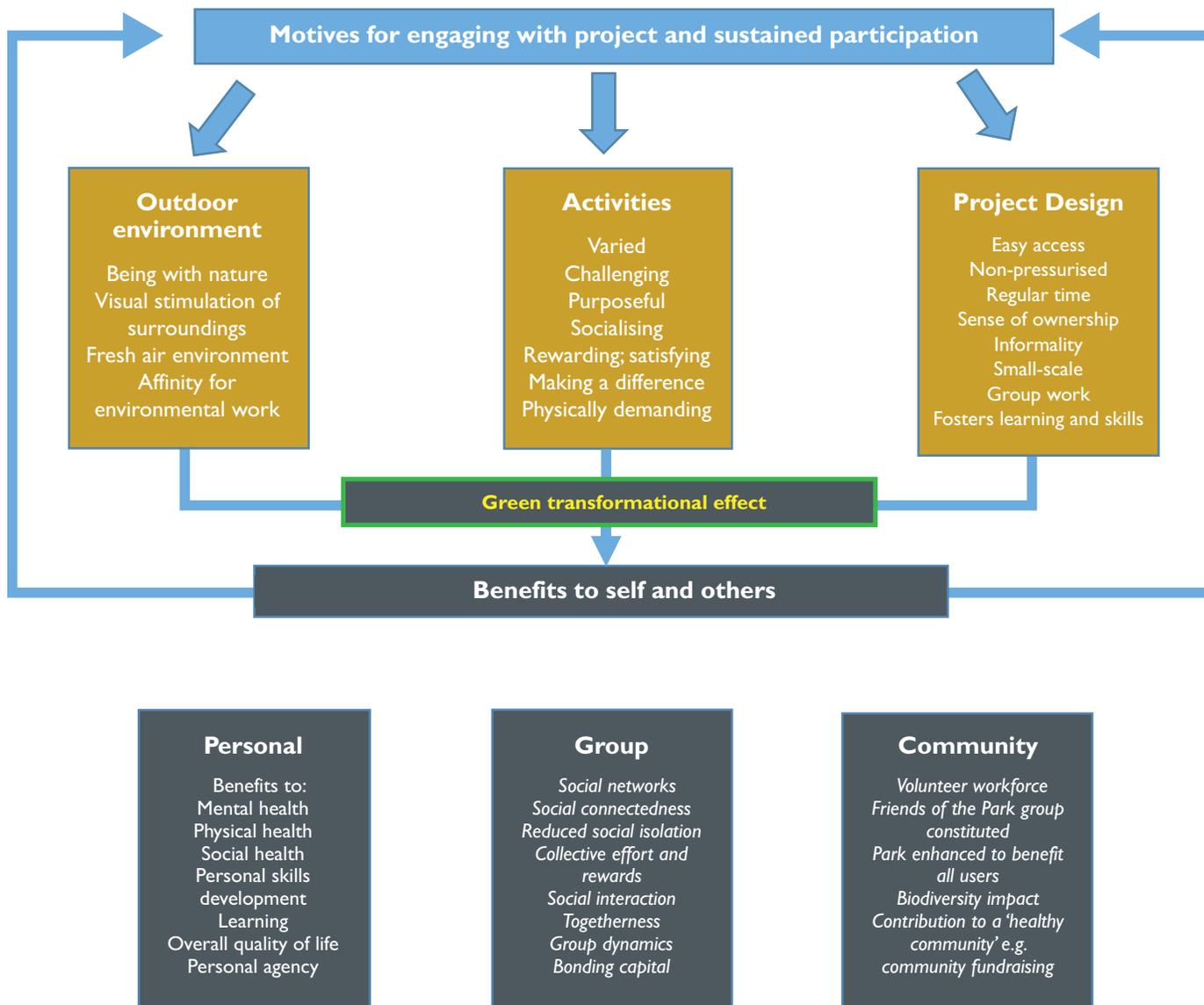
Findings were subordinated, re-evaluated, and reorganized under three superordinate themes (Diagram 1):



**Diagram 1**

It was apparent that the overarching themes were reciprocal/mirrored in nature, with the reported benefits of participation in terms of health, well-being and personal development. In turn, the natural environment motivated continued attendance at the project site, and the motivating factors identified in engaging and sustaining participation facilitated the wide-ranging benefits. The perceived benefits suggested by the respondents were consistently mentioned throughout the study period and became more richly articulated in later interviews across the five participants. In attempting to summarize the findings schematically, the following model (Diagram 2) was produced.

These findings have similarities with those noted by



**Diagram 2**

O'Brien et al (2008), in terms of primary and secondary factors influencing behavior and outcomes in a study involving a much large sample of environmental volunteers. Such socio-ecological models are useful in aiding the appreciation of factors that facilitated persistent levels of attendance at this project, and identifying the moderating mechanisms and potential mediators behind reported health improvements. Lachowycz & Jones (2013) presented a socio-ecological framework that depicted many similar factors this study discovered from the volunteers' responses. For example, the project clearly promoted moderating factors— influences upon the health outcomes reported—in

which the volunteers perceived the project as a worthwhile and meaningful community initiative with a simple and attractive design. In other words, activity took place routinely every week, reasonably proximal to home and on a small scale, while being supervised and safe, along with social opportunities (provided by the cafeteria on site for both during and after each session).

Respondents also referred to the mechanisms, or drivers, that moderated their behavior in respect of personal engagement, such as having time on their hands as a result of retirement, being able to walk or cycle to the venue, as well as their own personal understanding

and appreciation of the park and its needs. At times, strenuous physical activity became inherent in the varied activities they undertook, especially a preference for the outdoors. In addition, they spoke of numerous mediators behind their perceived health improvement and personal development outcomes by experiencing the restorative effects of nature and social interaction. The latter are believed to be plausible causal explanations for the health impacts derived from *greenspace* located activities; although researchers suggest more confidence in defining potential moderators between exposure to *greenspace* and the facilitation of positive health outcomes, stressing the personal choices and motives individuals have for engagement, and how far individuals overcome unforeseen constraints to participation.

It can be further posited that an optimally designed initiative - involving a combination of natural landscape; nature-based activities; 'just right' challenges; open access; and a non-pressurized occupational environment - can produce green exercise related transformative outcomes which positively impact at personal (enhanced health and personal development), group (bonding and social connectedness) and community levels (habitat protection and aesthetic changes to the park). Volunteer correspondence contributed to personal, social, and community capital, and are referred to in the discussion section below with excerpts from interviews.

## Discussion

Superordinate themes were discussed and supported with extracts from volunteer testimonies.

*Core theme 1: Perceived health benefits of engagement*  
Lachowycz and Jones (2013) and Peschardt et al (2012) have previously highlighted the potential for greenspaces to facilitate improvements in health and wellbeing, whether through physical, mental or social means. The data sets revealed some interesting personal narratives regarding the perceived health impacts of participation. Most of these were of a psycho-social nature; for instance, *being more positive about life, improved confidence, and reduced social isolation*. Although physical impacts were also highlighted (*raised my activity levels and more dedicated to keeping fit*), multiple mechanisms may be responsible for achieving

these health benefits. Some appeared to be connected to undertaking the specific activities involved, which were often referred to as varied and personally challenging; whilst others seemed to be derived from the group dynamics and social interaction, natural environment, or results of their individual, as well as collective efforts.

### *Physical health*<sup>3</sup>

The physical nature of the work was particularly enjoyable to all members of the group, enabling them to either maintain current fitness levels or enhance them. For example, Alex expressed his enthusiasm for tasks involving considerable physical effort:

*"I like to get stuck into big tasks, get a bit of an adrenalin rush...a buzz—just exciting. The busier the better for me—I just loved chopping things down!"*

Ruth concurred, identifying how the more physically demanding activities had played a role in enhancing her health:

*"I think for me [the health benefit] was more physical. I can do things more than I thought like sawing down trees, which was great fun!"*

...while Anne stated that the physical exercise was a motivating factor in *"getting [her] up and out on a cold winter's morning, which [she] probably wouldn't have done."*

For Ruth and Alex, their involvement had significantly boosted their activity levels outside of the project. For example, Ruth was *"walking into town more often rather than using [her] bus pass—even in Winter"* and she was aware of the UK Government's message about taking more regular physical activity<sup>4</sup>. Meanwhile Alex felt he was *"more dedicated to keeping fit,"* taking more regular exercise, and consequently, felt he had *"kept[his] weight under control."*

Maintaining physical health into later life is crucial to ensure continuing functional independence, and thereby the quality of life for older adults, as well as to prevent ill-health and disease—including circulatory and musculoskeletal problems (Spiers et al, 2005). This

<sup>3</sup> This paper acknowledges physical health as constituting not merely the absence of illness or disease, but also the need to be sufficiently physically active to enhance components of physical fitness (such as strength, endurance, flexibility); obtaining adequate rest and sleep; adopting positive lifestyle behaviors; and addressing one's medical needs.

<sup>4</sup> Hitherto stated as: 150 minutes of moderately intense physical activity per week (Department of Health, 2011).

was noted by Anne who highlighted that, although she was reasonably active, *“I am getting older all the time so [green exercise] helps in that way!”*

With an estimated 27% of all deaths in the UK caused by cardiovascular disease, it appears that projects such as Greenfingers are worthy of consideration as a vehicle for promoting positive physical health impacts (British Heart Foundation, 2015). Moderately active people have lower mortality rates compared to inactive populations (Schroll, 2013). Therefore, it is also worth noting that physical health improvements reported by volunteers coincides with another study that evaluated 42 volunteers’ heart-rate responses to the conservation activities within the park (Christie et al, 2015). This study demonstrated that across all age groups, volunteers worked at sufficient exercise intensity commensurate with bestowing cardiovascular health benefits.

Benefits of participation in green exercise are increasingly well documented, but there will always be significant barriers to exercise amongst all sections of the adult population. Older adults often cite time constraints, health concerns, as well as access and finance (Lees et al, 2005). The volunteers were determined to attend as regularly as they could. Due to their obvious passion for the green space activities they engaged with, two of the female volunteers walked or even cycled for miles, even in inclement weather if public transportation was unavailable.

#### *Mental Health*<sup>5</sup>

Physical activity also benefits mental health states (Bowler et al, 2010). Undertaking gardening projects, or horticultural and conservation activities— and even just simply being in the presence of nature—have hitherto been well documented in producing restorative effects, based upon the pioneering work of Kaplan (1995) and the often cited *Attention Restoration Theory*. These effects are derived from the inherent fascination that humans have with nature, and the associated feelings of being able to find sanctuary from stressful contexts through immersion in motivating activities. Purpose and meaning can be found in an almost spiritual way, which explains often reported expressions from the volunteers of being at one with nature and finding oneself.

Volunteers cited numerous mental health benefits. Given their older age profile, there are consistent findings from a systematic review of volunteering and health which suggests that older people may have lower incidence of depressive episodes as a result of volunteering, coupled with reduced functional dependency (Jenkinson et al, 2013). Alex highlighted how participation helped him to overcome a recent, difficult period in his life:

*“I think I’m smiling more [laughs]...Just more positive about life I guess. The project helps with a previous bout of depression...I’m not brooding any more. It just makes you more positive.”*

Benefits to the mental health of conservation volunteers have previously been noted by Yerrell (2008) and Whitham & Hunt (2010), suggesting reductions in anxiety, stress and depression; enhancements to wellbeing; and reduced social isolation as a result of participation. Jenkinson et al (2013) also supports the contention that mental health benefits can result from voluntary activity—citing studies that showed improvements in depression, life satisfaction and wellbeing. Similarly, there appeared to be a clear connection between the natural environment and positive feelings among volunteers, consistent with promising green exercise research indicating that the combination of aesthetically satisfying natural landscapes, combined with healthy forms of exercise, promotes restorative effects (Bowler et al, 2010; Coon et al, 2011; Pretty et al, 2005). During an interview, Jim stressed the personal rewards of maintaining and enhancing the appearance of the park, and the reciprocity of ‘feel good’ effects while being in nature:

*“It’s a natural thing. It’s like if I go away somewhere one day, somewhere nice, a nice environment, and it just makes you feel good...And coming into the park, it does the same thing. Being in a place with trees, plants, landscaping—It just makes you feel good.”*

Meanwhile, Alex’s interpretation regarding how he felt uplifted as a result of engaging with the natural surroundings of the park mirrored that of a natural, musical echo throughout the forest:

*“It’s like background music. I’m not being profound—*

<sup>5</sup> Mental health defined here as “...a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community” and “...not merely the absence of disease or infirmity” (WHO, 2014).

*It's just what I feel. Part of the music is silence sometimes. Other times you hear the birds. We were working at a point where we heard this funny noise and we looked up in the tree and there was obviously a grey squirrel, which was making the strangest of noises. Just, new things, see things...It's just the whole atmosphere."*

It was clear that the volunteers were experiencing the soft fascination derived from immersion in nature (Kaplan, 1995). This was also exhibited by Ruth when referring to the natural, seasonal cycle of trees and plants found throughout the park:

*"You look at the trees and you wonder how long they've been here. I mean look at that tree...a Copper Beech...I mean it will go to orange, then the leaves will die back and be bare, then it'll come again. I just like seeing everything sprouting, all the colors and the different greens...How everything grows, how it keeps going all the time, it never stops, does it?"*

The restorative effect was often referred to across all data sets, especially when describing involvement as relaxing, satisfying, as well as providing contentment and happiness. For most, green exercise filled a void in their lives that was caused by retirement or bereavement.

#### *Social Health*<sup>6</sup>

The volunteers also stressed the perceived social health benefits of involvement, by reducing levels of social isolation and feeling a part of the local community. Ruth, for example, highlighted the common factors that helped make the group dynamics work for her in terms of social health:

*"You know, we're all of the same age, and have same sense of humor, so you know for me that's good, I mean living on my own I don't get the sort of banter that you get here."*

The quality of the social dynamic, and the regularity of interaction, can set up a continuous, reinforcing level of engagement (Toepoel, 2013) that social interaction encourages, which in turn cements the social bonds within the group. This might explain the longevity of involvement by the group members, who had clearly

become close friends. Alex stressed the importance of the *craic*, while Jim stressed the social element as being a major factor in his continued involvement over the past four years. It became clear, through observation and ongoing dialogue, that team spirit was enhanced through having specific goals to focus upon, and the satisfaction these produced for the whole group mirrored the benefits of volunteer group interaction. Similar effects have been noted in studies that have utilized horticulture as a therapeutic intervention (Hoban, 2002). Ruth even provided a feminist construct when reflecting on her involvement, commenting: *"I think just being able to hold my own! Being a female but proving I can get stuck in as much as the guys."*

The volunteers noticeably recognized the importance of their volunteer participation in maintaining social connectedness into retirement and the health implications of doing so. For instance, Alex felt that the project was a second career, helping him adjust to retirement and preventing his health from going backwards. Older adults are particularly at risk of social isolation due to reductions in social, occupational networks (Toepoel, 2013). It is argued that there is a natural disengagement process as a result of ageing (Cumming and Henri, 1961). Loneliness can also have a debilitating effect upon both mental and physical health (Findlay, 2003). The onset of illness or possibly disabling conditions in later life, along with the death of a spouse or aged friends, exacerbates feelings of isolation. Continued involvement in a range of activities, such as volunteering, will not only promote independence, but also mitigate against the inevitable loss of networks and thus promote personal resilience in the form of physical and psycho-social support. Saliency of these points were reflected by Jim and Alex, who were making the transition into retirement, stressing the importance of getting out of the house, making new friends, and also embracing the enjoyment derived from being in the park's natural setting. Ruth meanwhile gave a particularly powerful testimony as to the effects of separation from a long-time partner of thirty years, and how the project had helped to compensate to some degree:

*"I just feel like I've lost my life, but although I've got*

<sup>6</sup> Social health is inextricably linked with mental health (Faculty for Public Health, 2010), and is associated with numerous factors such as: making positive contributions to (and feeling supported and connected within) a community; forming meaningful and positive relationships with others; behaving appropriately in social situations; being resilient and self-reliant; and taking responsibility for self and others.

*a new life, maybe it's not the one that I really want... I've had seven years on my own and I just think you just go home every night and you never speak to anybody. At first, I mean it was just dreadful...but then I thought you can't sit like this...so in some ways Greenfingers has helped me get out."*

Such successful ageing can thereby occur through keeping busy (Ekerdt, 1986), with a clear linkage between engaging with meaningful activity and satisfaction. Whilst Ruth had also gained sufficient confidence to embrace other volunteering opportunities (at a major sports event and in a local charity office), some older adults may not be able to command the necessary resources to facilitate positive changes to their social lives due to any number of personal, attitudinal or structural barriers, and thereby fail to access the benefits of health- enhancing activities (Utz et al, 2002).

*Core theme 2: Development of personal, social and community capital*

Vocationally relevant skills and learning were also highlighted as important benefits derived from the conservation volunteering. Similar outcomes to this study were noted by the Green Gym initiative (Yerrell, 2008; Whitham & Hunt, 2010) and in a Scottish Forestry Trust and Forestry Commission report (O'Brien et al, 2008). Ruth, Jim and Anne all spoke at length about how they had acquired more knowledge about plants, trees and aspects of the horticultural volunteer work (using tools, planting, mulching, DIY work, etc.). Jane felt her knowledge of gardening and passion for conservation was useful, while Alex stressed how volunteering had promoted a renewed sense of purpose during retirement, utilizing his prior skills and knowledge to benefit the group and park.

Also noted was a clear sense of pride in the results of the specific tasks assigned to the group. When completing the renovation of a bird hide, creating new flower beds, tackling invasive weeds and planting new trees, volunteers felt these projects were considerably rewarding. They felt they were *making a difference* to the biodiversity of the park, and that their work positively impacted upon the local community. Once again, this notion of a contribution to community capital was captured by Yerrell (2008) in the evaluation of Green Gyms. In this respect, Jim felt his efforts, and that of his colleagues, went some way to leave a lasting footprint in the park for others to enjoy, reinforcing his own sense of belief in his participation:

*"It just seems a sensible and good thing to have done...a useful thing to have done...I suppose it's a legacy...it's a useful activity."*

The volunteers were now the core members of a newly constituted Friends of the Park group, which promoted self-determined small-scale projects to benefit the park and its users. This group had quickly established itself, and undertook significant fundraising activities, indicating that the original Greenfingers project had begun to facilitate a tangible contribution to community development in its own distinct way (Ledwith, 2011). Their work in renovating numerous park features and aspects was recognized by an interpretation board placed in one area of the park (photo 5).



**Photo 5: Celebratory interpretation board**

This was a clear representation of a major development of their involvement with the park. Such a development has resonance with the concept of the *Big Society*, which sought to facilitate social renewal through greater involvement of people within their own communities. At its heart lay a commitment to empowering local communities to improve their own quality of life, and for

“every adult in the country to be an active member of an active neighborhood group” (Conservative Party, 2009). As such, it had a similar emphasis to the previous Labor Government’s *active citizenship* concept, which aimed to encourage a sense of responsibility and involvement of local people in improving their own communities. There was a recognition that the state had a role to play in facilitating engagement with both concepts, thereby enhancing the three levels of social capital within communities—bonding, bridging and linking capital (Somerville, 2011).

Volunteer testimonies suggested that productive and meaningful occupation was a major factor in respect of optimizing the social dynamic of the group. They enthusiastically linked the productive capacity of the group to its social cohesion, with a clear sense of bonding social capital defining the group, represented by the camaraderie and sense of shared purpose. Ruth commented that being of a similar age and *sharing the same senior moments* made for a light-hearted atmosphere amongst colleagues. Fun and enjoyment derived from being a volunteer. Alex described the group as a good crew and stressed:

*“We’ve had fun, we’ve had pleasure, we’ve enhanced the park and we’ve got some money (fundraising) to boot.”*

Most weekly activities were pre-determined and developed to suit the capabilities of the volunteers, and, as the group grew in confidence and developed its own sense of identity, they felt more empowered to negotiate with the park staff over specific priorities they felt could benefit the park. The group had been successful in linking with funding agencies and organizations to facilitate park improvements. It was thereby obvious that there was a strong, collaborative relationship between the park staff and the volunteer group that facilitated the project’s activities to a mutually satisfying level. In addition, other organizations, representing mental health service users, including adults with developmental disabilities, and a youth offending team, had been linked to the project’s work. These were all signs of bridging capital being facilitated by the project (Somerville, 2011) and how the project had developed into something locally significant.

Under the last UK Labor Government, the ‘Parks for People’ program (2006-09) had encouraged civic

engagement in terms of urban park usage but also in respect of volunteering (Carpenter, 2013). Parks were viewed as a vehicle for facilitating social cohesion and health improvement, but also contributing to enhancements in social capital and the notion of active citizenship. However, the economic downturn in 2009 meant that the successor Coalition Government sought to implement sweeping cuts to a range of public services, including parks. This triggered some concerns expressed by the volunteers over their contribution to the day-to-day work in the park. The volunteers did not want to be considered as an alternative option to employing part or full-time workers within the parks service. In this context, Alex identified an ‘acceptable’ limit to volunteering, beyond which he felt it might adversely impact upon those employed in the park:

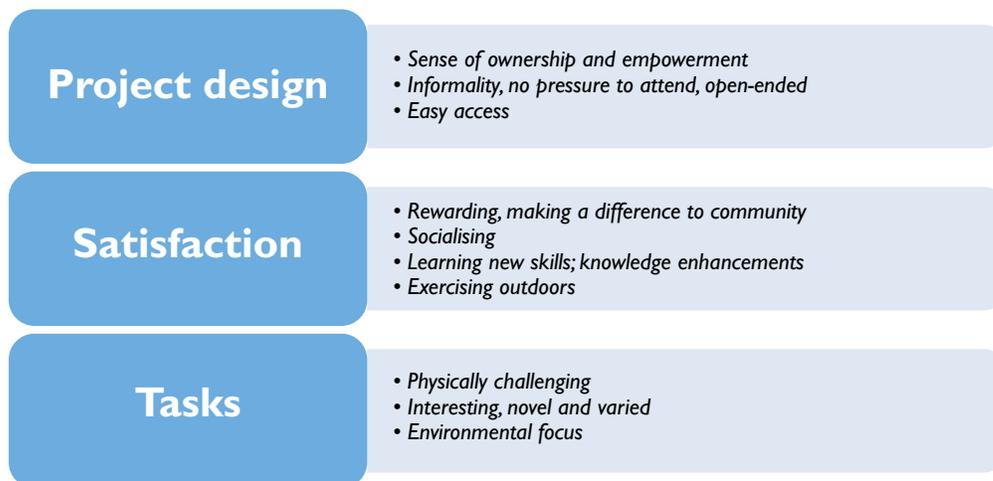
*“I think that if I volunteer say four days a week I might be taking someone’s job away so I think 2-3 hours a week, that’s acceptable.”*

This raises an interesting question as to how strong volunteer conservation efforts can become before verging on inappropriate in terms of commitment, and the impact it may have towards others.

### *Core theme 3: Factors that engage and sustain participation*

There may be a range of factors behind an individual’s decision to participate in volunteering activity—some in the form of altruism (giving something back to the community), personal (social networks and vocational skills), or simply changing their domestic situation (Jenkinson et al, 2013). Health motives are not necessarily primary motives, although these were often mentioned by volunteers. Regardless of motive, in order to derive meaningful, long-term beneficial effects from volunteering, it is crucial to ensure continued participation. However, Choi and Kim (2011) suggest too much volunteering may prove counter-productive to one’s health, as it becomes more of a commitment and therefore a potential burden to the individual beyond a certain threshold. It was not apparent that any of the volunteers here were feeling over-committed, perhaps due to the fact they felt able to come and go as they pleased, and appeared to value the lack of obligation to attend:

*“It was refreshing also not to be pressurized. Sometimes you go to volunteer on projects and*



**Diagram 3**

*there's an expectation to be there every week, and like... 'Where were you last week?' Here it was different, there was no obvious pressure, it was a nice, laid-back approach, you could come and go as you please, and I think that was really good to experience."*

This appeared to hold true looking back on previous engagements, despite the volunteers being heavily involved with the formation of the 'Friends of the Park' group, which alone has drawn in a new cohort of volunteers with varying commitment.

Notions of ownership and empowerment have been identified as important elements of sustainable activities within communities that in themselves can lead to other positive impacts, such as enhancing social and community capital, as well as improvements in quality of life (Somerville, 2011). In Diagram 3, the volunteers highlighted how the project design facilitated their continued participation, along with the satisfaction they derived from undertaking the conservation activities and the types of tasks involved, that in turn reinforced their attendance.

Promoting activities with open-ended engagement, described here as informal and without pressure to attend, may lead to greater adherence, despite the risk of intermittent engagement. Any prolonged break in attendance may have led to falling through the cracks and non-participation. If participants perceive volunteering as being rewarding not only to themselves, but also to the community, this clearly has potential

for facilitating initial engagement, as well as adherence and psycho-social impacts. Hallmarks of a *healthy community* include: the fostering of pride, self-esteem, confidence, self-respect, social positioning and improved social networks (Hublely and Copeman, 2009).

All the volunteers spoke about their enjoyment during the varied and challenging tasks offered by the project on an ongoing basis. During a pruning session, Anne referred to the sawing of rhododendron bushes that were being removed in one section of the park (photos 7 & 8, below) as particularly *satisfying*. Alex enjoyed the relative novelty of specific tasks, suggesting it *"helped to work your brain a bit,"* while Jim applauded the combination of *"physical activity and the natural element"* as a key motivator of his involvement.

Three of the volunteers evoked positive childhood memories of nature-related activities as an influence in respect to participation. Not only did they have a clear preference for working with nature and being outdoors, they enjoyed learning new skills and developed their knowledge of the park habitat, reinforcing their motivation to attend. Guiney and Oberhauser (2009: 187) noted similar effects and proposed that conservation volunteer programs should, "Share information about the environmental benefits that result from volunteers' work, helping them understand the results of their collective action and thus increasing their motivation to volunteer." However, not everything was a walk in the park.

Warning signs became evident that any disruption to



**Photos 7 & 8: 'Before' and 'after' shots of clearance activity**

continuity could quickly lead to disharmony, in the form of a temporary day change. Jane noticed, during the project's work one summer, her motivation decreased due to a disruption in her normal schedule:

*"When they swapped it to Wednesdays for a while that was, 'Oh blow it, I'm not coming out again.' That really put a big downer on... I mean I came up on a Thursday and there was nobody here."*

Fortunately, this was a short-term issue, but it demonstrated that any change—especially if not communicated effectively—could result in discord. Similarly, on the rare occasion when tasks had not been planned in advance by the park management, the group felt under-valued, and Jane felt it had led to more



**Photo 6: Landscaped gardens shaped by the group**

serious consequences: *"It needs somebody to plan and organize it... We've lost volunteers I'm sure in the past because of that."*

As the volunteers evolved into a more tightly knit unit, their confidence in asserting themselves to negotiate specific activities with park managers and be trusted to undertake various tasks (photo 6) meant that tensions, such as the ones described, were often minimized to everyone's benefit. It became apparent during research by observing the group over time that they had not only become more empowered, but also built a relationship with the park authorities based on trust, mutual respect, but above all friendliness, so that any friction noted above was indeed very much a rare occurrence and quickly resolved.

### **Conclusion**

The testimonies of these long-term volunteers provide a compelling narrative regarding a number of inter-dependent impacts, with the natural environment clearly inspiring participation and the sustained engagement in the project facilitated through the varied nature-based tasks. In turn, all of the factors fostered a sufficiently dynamic and beneficial group interaction. Volunteers clearly alluded to specific physical and psycho-social health impacts derived from their involvement, although this begs the question (as in other similar studies)—*exactly how* is their health enhanced? Here, it appears to be through engagement in motivational activities (*variety, intensity, challenge*); a result of group interaction (*conversation, making friends, working together*); the direct influence of the natural environment (*aesthetic appeal; sounds; features*); and the productive outcomes of engagement (*transforming the park with the associated pride and satisfaction derived from that process*). Precisely identifying the most influential causal relationships is clearly problematic in the context of a project with so many variables at play

(Jenkinson et al, 2013; Dugdill et al, 2009). However, the findings make it clear that health benefits were derived from volunteer engagement in nature-based activities (Maas et al, 2006), regardless of which elements produced the strongest effects, since there is an intersection between the variables involved.

With emergent government recognition of the value of suitably tailored ecological health promotion strategies and programs (Carpenter, 2013), the time appears right to further encourage efforts within communities, with the support of the public and voluntary sectors, to enable a range of accessible and sustainable initiatives that facilitate participation and promote wellbeing outcomes. Given that parks are used by a wider cross-section of the population (Greenhalgh and Warpole, 1995), such environments are clearly conducive to acting as vehicles for social prescribing, if harnessed effectively. Social-ecological models have offered a useful framework to explain the apparent popularity of this specific project in terms of the volunteers' sustained levels of commitment to involvement (Sallis, Owen, & Fisher, 2008); This project was not only an opportunity that the volunteers valued in different ways, but also one in which they perceived significant health-enhancing and personal development effects. Indeed, the totality of benefits volunteers ascribed to their involvement may be explained as green inspired transformative outcomes that encompassed the individual (*e.g. psycho-social benefits*), immediate others (*social bonds and connectedness*) and the community/environment (*enhancements to local habitat, and aesthetic improvements to the park*). Caution needs to be applied here due to the small-scale nature of this project and so there is merit in further investigating the precise mechanisms behind perceived enhancements to health and wellbeing resulting from similar green exercise interventions and contexts, and whether short-term engagement (as opposed to the long-term exposure of these volunteers) also provides any perceived benefits by individuals.

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## REFERENCES

- Barton, J. and Pretty, J. (2010). What is the best dose of nature and green exercise for improving mental health? A multi-study analysis. *Environmental Science and Technology*, 44, 3947-3955.
- Birch, M. (2003). Cultivating Wildness: Three Conservation Volunteers' Experiences of Participation in the Green Gym Scheme. *British Journal of Occupational Therapy*, 68(6), 244-252.
- Bowler, D., Buyung-Ali, L., Knight, T., and Pullin, A. (2010). A systematic review of evidence for the added benefits to health of exposure to natural environments. *BMC Public Health*, 10(1), 456.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3, 77-101. doi:10.1191/1478088706qp0630a
- British Heart Foundation (2015). CVD Statistics – UK Factsheet. Retrieved December 15, 2015, from: <https://www.bhf.org.uk/.../heart.../cardiovascular-disease-statistics>.
- Cabinet Office (2015). *Sporting Future: A New Strategy for an Active Nation*. London: Cabinet Office, HM Government.
- Carpenter, M. (2013). From 'healthful exercise' to 'nature on prescription': The politics of urban green spaces and walking for health. *Landscape and Urban Planning*, 118, 120-127.
- Choi, N.G., and Kim, J. (2011). The effect of time volunteering and charitable donations in later life on psychological wellbeing. *Ageing Society*, 31, 590-610.
- Christie, M., Miller, P., Dewhurst, S. (2015). Green exercise and cardiovascular health: quantitative evidence from a community conservation intervention in the UK. *European Scientific Journal*, 11(26), 343-356.
- Conservative Party (2009). Big Society - Not Big Government. Building a Big Society. Retrieved December 8, 2015, from: <https://www.conservatives.com/~media/Files/Downloadable%20Files/Building a-Big-Society.ashx>
- Coon, J.T., Boddy, K., Stein, K (2011). Does participating in physical activity in outdoor natural environments have a greater effect on physical and mental well-being than physical activity indoors? A systematic review. *Environmental Science and Technology*, 45(5), 1761-1772.
- Cumming, E. and Henri, W.E. (1961). *Growing old: The process of disengagement*. New York: Basic Books.
- Department of Health. (2011). *Factsheet 4: Physical activity guidelines for Adults (19–64 years)*. London: Department of Health.
- Dugdill L, Crone D, Murphy R. (2009). *Physical activity and health promotion: Evidence based approaches to practice*. Chichester, UK: Wiley-Blackwell.
- Ekerdt, D. J. (1986). The busy ethic: Moral continuity between work and retirement. *The Gerontologist* 26(3), 239–24.
- Faculty for Public Health (2010): *Concepts of Mental and Social Wellbeing*. Retrieved June 8, 2016, from: [http://www.fph.org.uk/concepts\\_of\\_mental\\_and\\_social\\_wellbeing](http://www.fph.org.uk/concepts_of_mental_and_social_wellbeing).
- Findlay, R.A. (2003). Interventions to reduce social isolation amongst older people: *Where is the evidence?* *Ageing & Society*, 23, 647-658.
- Greenhalgh, L. & Warpole, K. (1995). *Park life: Urban parks and social renewal*. Stroud, Glos: Comedia & Demos.
- Guiney, M.S., and Oberhauser, K.S. (2009). Conservation volunteers' connection to nature. *Ecopsychology*. 1(4), 187-197.
- Hoban, S. (2002). The softer side of therapy. Therapeutic benefits without the "work". *Nursing Homes: Long Term Care Management*, 51(3), 26. Retrieved March 21, 2015, from: <http://www.ltlmagazine.com/article/softer-side-therapy>
- Hordyk, S.R., Hanley, J. & Richard, E. (2015). "Nature is there; it's free": Urban greenspace and the social determinants of health of immigrant families. *Health & Place*, 34, 74-82.
- Hubley, J., and Copeman, J., (2009): *Practical Health Promotion*. Cambridge: Polity Press.
- Jenkinson, C. E., Dickens, A. P., Jones, K., Thompson-Coon, J., Taylor, R. S., Rogers, M. and Richards, S. H. (2013). Is volunteering a public health intervention? A systematic review and meta-analysis of the health and survival of volunteers. *BMC Public Health*, 13(1), 773. <http://doi.org/10.1186/1471-2458-13-773>
- Kaplan, S. (1995). The restorative benefits of nature: towards an integrative framework. *Journal of Environmental Psychology*, 15, 169-182.
- Knight, P.T. (2002). *Small-Scale Research*. London: SAGE.
- Lachowycz, K., and Jones, A.P. (2013). Towards a better understanding of the relationship between greenspace and

- health: Development of a theoretical framework. *Landscape and Urban Planning*, 118, 62-69.
- Larkin, M., Watts, S., Clifton, E. (2006). Giving voice and making sense in interpretative phenomenological Analysis. *Qualitative Research in Psychology*, 3(2), 102-120.
- Larson, L.R., Jennings, V. & Cloutier, S.A. (2016). Public Parks and Wellbeing in Urban Areas of the United States. *PLoS One*. 11(4), e0153211. doi: 10.1371/journal.pone.0153211
- Ledwith, M. (2011). *Community Development: A Critical Approach* (2nd ed). British Association of Social Workers. Bristol: Policy Press.
- Lees F.D., Clark, P.G., Nigg C.R., Newman P. (2005). Barriers to exercise behavior among older adults: a focus-group study. *Journal of Ageing and Physical Activity*, 13(1), 23-33.
- Maas, J., & Verheij, R. A. (2007). Are health benefits of physical activity in natural environments used in primary care by general practitioners in The Netherlands? *Urban Forestry & Urban Greening*, 6(4), 227-233.
- Maas, J., van Dillen, S.M., Verheij, R.A., & Groenewegen, P.P. (2008). Social contacts as a possible mechanism behind the relation between green space and health. *Health & Place*, 5(2), 586-589.
- Mason, J. (2003). *Qualitative Researching*. 2nd ed. London: SAGE.
- Morse, J. M. (2000). Determining Sample Size. *Qualitative Health Research*, 10(1), 3-5.
- O'Brien, L., Townsend, M., Ebdon, M. (2008). *'I like to think when I'm gone I will have left this a better place': Environmental volunteering: motivations, barriers and benefits*. Report to the Scottish Forestry Trust and Forestry Commission
- Peschardt, K.K., Schipperijn, J., Stigsdotter, U.K. (2012). Use of small public urban green spaces (SPUGS). *Urban Forestry & Urban Greening*, 11, 235-244.
- Pretty J., Peacock J., Sellens M., & Griffin M. (2005). The mental and physical health outcomes of green exercise. *International Journal of Environmental Health Research*, 15, 319-337.
- Pretty, J., Peacock, J., Hine, R., Sellens, M., South, N., & Griffin, M. (2007). Green exercise in the UK countryside: Effects on health and psychological well-being, and implications for policy and planning. *Journal of Environmental Planning and Management*. 50(2), 211-231.
- Reid, K., Flowers, P. & Larkin, M. (2005). Exploring lived experience: An introduction to interpretative phenomenological analysis. *The Psychologist*, 18:1, 20-23.
- Sallis, J. F., Owen, N., & Fisher, E. B. (2008). *Ecological models of health behavior*. In Health Behavior and Health Education: Theory, Research, and Practice (4th Ed.), 465-485.
- Schroll, M. (2003). Physical activity in an ageing population. *Scandinavian Journal of Medicine and Science in Sports*, 13, 63-69.
- Schipperijn, J., Bentsen, P., Troelsen, J., Toftager, M., & Stigsdotter, U. K. (2013). Associations between physical activity and characteristics of urban green space. *Urban Forestry and Urban Greening*, 12(1), 109-116. <http://doi.org/10.1016/j.ufug.2012.12.002>
- Scopelliti, M., Carrus, G., Adinolfi, C., Suarez, G., Colangelo, G. & Laforteza, R. (2016). Staying in touch with nature and well-being in different income groups: The experience of urban parks in Bogota. *Journal of Landscape and Urban Planning*, 148, 139-148.
- Silverman, D. (2010). *Doing qualitative research: practical handbook*, (3rd ed.). London: SAGE.
- Somerville, P. (2011). *Understanding Community*. Bristol: Policy Press.
- Spiers N.A., Matthews R.J, Jagger C., Matthews F.E., Boulton C., Robinson T.G., Brayne C. (2005). Diseases and impairments as risk factors for onset of disability in the older population in England and Wales: findings from the Medical Research Council Cognitive Function and Ageing Study. *Journal of Gerontology*, 60(2), 248-54.
- TCV (2015). *Green Gym – Exercise to make a difference*. Retrieved August 24, 2015, from: <http://www.tcv.org.uk/greengym>
- Toepoel, V. (2013). Ageing, leisure, and social connectedness: How could leisure help reduce social isolation of older people? *Social Indices Research*, 113, 355-372.
- Utz, R.L., Carr, D., Nesse, R., Wortman, C.B. (2002). The effect of widowhood on older adults' social participation: an evaluation of activity, disengagement, and continuity theories. *The Gerontologist*, 42(4), 522-533.
- Whitham, J., & Hunt, Y. (2010). The green shoots of good health. *Mental Health Practice*, 14(1), 24-25.
- World Health Organization (2014). *Mental health: a state of well-being*. Retrieved July 15, 2015, from: <http://www.who.int>

who.int/features/factfiles/mental\_health/en/ . World Health Organization. Geneva.

Yerrell, P. (2008). *National Evaluation of BTCV's Green Gym*. Oxford: School of Health and Social Care, Oxford Brookes University.

Zhang, Y., van Dijk, T., Tang, J. & van den Berg, A. E. (2015). Green space attachment and health: A comparative study in two urban neighborhoods. *Int. J. Environ. Res. Public Health*, 12, 14342-14363. doi:10.3390/ijerph121114342

**BIOGRAPHY**

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