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Volunteering in the outdoors:
The experience of becoming connected to nature.

Natalie Sugden

A thesis submitted to the University of Huddersfield in partial fulfilment of
the requirements for the MSc by Research in Psychology.

January 2019.

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Abstract

Aim: The research presented within this thesis aims to gain a detailed understanding of the experience and the benefits of becoming connected to nature. Research focused on adult volunteers who attend a weekly gardening group in Huddersfield, overseen by a local charity called Support to Recovery (S2R).

Method: Semi-structured interviews were carried out with 10 volunteers from a weekly gardening group, which is overseen by S2R and aims to provide well-being support to individuals within the Kirklees area. Participants were asked about their involvement within the group, how they came to be involved and to discuss their experiences so far. These 10 interviews were transcribed and Template Analysis (King & Brooks, 2017) was utilised to extract Preliminary Codes, Themes and Clusters.

Findings: Overall, 15 Themes were identified and clustered into 6 Overarching Themes; Escape, Identity within a Community, Becoming one with Nature, Feeling good whilst in Nature, Psychological Relaxation and Learning new things.

The findings are discussed with reference to the relevant literature and theories, including more specific research and theories that relate to the current research findings for example, Escapism and Identity. Future implications for practice and research are outlined and suggestions for further research in the area of nature and well-being interventions are made.

Chapter 1: Background

The knowledge that nature and the outdoors can have positive psychological outcomes for well-being has been established throughout recorded history (Selhub & Logan, 2012). At present, this relationship between spending time in and around nature, and the associated psychological well-being implications, are widely recognised (Bowler et al, 2010).

Environmental psychology strives to understand human behaviour in relation to (natural) surroundings. There is now an abundance of environmental research that highlights the relationship between involvement with the natural environment and the health and well-being of individuals (Capaldi, 2015). Despite the durability of this knowledge there is an ever-increasing number of people seeking to live in urban areas and a continued degradation of natural environments (MacKerron & Mourato, 2013). This suggests that further research and more robust findings are required to influence a change in current behaviour and attitudes to the outdoors.

Environmental psychology research encompasses several consistent key terms that are discussed throughout the literature. Green exercise, Green care and Nature connectedness will firstly be discussed to contextualise this thesis as these terms will likely reoccur throughout the current research. Societal issues and policies are also discussed in the chapter to evidence the need for further encouragement to spend time outdoors, and therefore a requirement for further research in the area.

1.1 Green Exercise

Green exercise involves partaking in physical activity whilst being directly exposed to nature (Pretty et al, 2005). 'Nature' in this instance includes any easily accessible outdoor space such as woodland, fields or forests. Green exercise is available to most people and any preferred daily physical activity can be practised such as walking, cycling or gardening. By using simple activities such as these, there is no need for specialist equipment or knowledge whilst partaking in green exercise. The benefits are represented well within past literature,

with both physical (Cimprich & Ronis, 2008) and psychological health and well-being (MIND, 2018; Pretty et al, 2010). There is growing evidence which advocates that green exercise should be utilised more widely within communities to improve the psychological well-being of all ages and abilities. Pretty and Barton (2010), for example, stress that the outdoors provides an important health service for all individuals. The growing number of care farms in the UK also recognise the positive impact that the outdoor environment and green exercise have on well-being (care farming, 2018) Care farming will be discussed in more depth later on. The recent 'Change4life' campaign by the NHS aims to improve physical health and well-being targeting three main risk areas; alcohol consumption, poor nutrition and exercise. The campaign particularly encourages exercise in the outdoors and nature (e.g. parks or gardens) in line with the evidence presented from the literature which continually highlights the positive impact that natural environments can have on psychological well-being (Pretty et al, 2010).

1.2 Green Care

The term Green Care encompasses numerous therapeutic strategies that can include Animal-assisted therapy, Horticultural therapy, and general Farm-based therapies. It is a little different from green exercise in that it includes therapeutic, social and educational interventions involving farming; farm animals, and gardening or general contact with nature (Artz & Davis, 2017). Green care aims to have a positive impact on health, society and education (Haubehofer et al, 2010). In the UK, a popular technique of green care is Therapeutic Horticulture, in which cognitive therapy strategies are used alongside gardening tasks to achieve clinical goals (Haubehofer et al, 2010).

Care Farming is another popular method of Green Care and was designed to provide structured and regular day care facilities for all individuals with a range of physical and psychological health needs, for example those suffering from addictions, life threatening illnesses such as cancer, children with learning disabilities as well as individuals with

psychological problems such as depression, anxiety and autism. The proposed therapeutic mechanisms in previous care farm work include; enabling a sense of community, growing/nurturing crops and animals and a sense of helping others. Care farms often offer set itineraries of activities using various parts of a farm to deliver a therapeutic experience for those involved (Care Farming UK, 2018). Care Farming was pioneered in the Netherlands, with much initial research originating from there (Hassink et al, 2007; 2010; 2014). However, Care Farming has continued to grow and become more popular around the world, including within the UK over recent years. This is most likely due to the numerous benefits of the outdoors on health, as portrayed within literature (Pretty et al, 2010; MIND, 2018). Evidence to support the practice of care farms has grown over the past few years, with many researchers reporting the positive effect that it can have on psychological well-being for all ages and backgrounds (Mag et al, 2010).

1.3 Nature Connectedness

As previously discussed, research highlights that nature can be beneficial and lead to improvements in well-being. The related concept of nature connectedness or nature relatedness stems from past research and has been defined as an “individual's experiential sense of oneness with the natural world” (Mayer & Franz, 2004; Mayer et al, 2009). The concept of nature connectedness has been linked to the biophilia hypothesis by Wilson (1984), which suggests that our ancestors' well-being and survival depended on connecting with nature. In the modern day it seems that there are still beneficial elements to being in the outdoors and we still have a need or desire to be in or around nature. This tendency is part of our genetic inheritance (Howell et al, 2011). This biophilic disposition will be discussed further in subsequent chapters. Nature connectedness is a strong predictor of pro-environmental attitudes and behaviours that may also be positively associated with subjective well-being (Capaldi et al, 2014). A meta-analysis by Capaldi et al (2014) showed that individuals who are more connected to nature tended to experience more positive

effects such as vitality, life satisfaction and improved psychological well-being compared to those less connected to nature. The connectedness to nature scale (CNS) by Mayer and Frantz (2004), is one of the most systematically studied scales and is frequently used as a measure of the subjective connection between individuals and nature. It is a measure of individuals' trait levels of feeling emotionally connected to the natural world. Mayer (2004) used five studies to assess the validity and reliability of the connectedness to nature scale (CNS). Results demonstrated that the CNS has good psychometric properties, correlates with related variables (the new Environmental Paradigm Scale, identity as an environmentalist), and is uncorrelated with potential confounds (verbal ability, social desirability). These findings suggest that the CNS is a useful empirical tool for research surrounding the relationship between subjective well-being, ecological behaviour and nature, as evidenced in research by Nisbett et al (2011), for example. The terms and therapies discussed above are likely to be referred to within the current thesis, particularly Nature Connectedness, as this is central to the aim of the research. The next section of Chapter one will discuss real-world issues and policies that are linked to this research.

1.4 Current societal issues

Despite the belief that being in the outdoors improves well-being, modern trends suggest that many people are still disconnected from nature, both physically and psychologically (Capaldi, 2015). In 2014 the estimated number of people living a nature-impooverished urban lifestyle in the UK was 83% (Defra, 2018). In financially wealthy and developed nations, on average, less than 10% of each day is spent outdoors (MacKerron & Mourato, 2013). Issues relating to the decline in outdoor activity are becoming increasingly apparent in the present day, for instance child obesity is now considered a world health problem (Wake & Reeves, 2012). As previously mentioned, many studies have looked at the cultural and lifestyle-related factors involved in school-aged children's lives, for example their hobbies and physical activities, distance to school and travel arrangements. The level of sedentary activity, television viewing and computer use are currently at an all-time high. Factors such

as these are the main negative influences on energy balance and lack of time spent in outdoor and green spaces in UK children (Wake & Reeves, 2012). Research focusing on environmental psychology and nature and well-being promotion continues to develop and focuses on encouraging outdoor activity for all ages.

Flouri et al (2014) along with many others (Nisbet, 2011; Cheng & Monroe, 2010) found that underprivileged children in urban neighborhoods with more greenery had fewer emotional problems from age 3 to 5 than peers in less green neighborhoods. This suggests that green spaces promote positive emotional well-being in poor urban children in early childhood, however this could be due to a wider group of social inequalities such as; wealth, education and good quality housing. Capaldi (2015) outlined how nature promotes flourishing (i.e., enhanced wellbeing) and positive mental health. Without regular contact with nature, however, children may be missing out on some of these psychological benefits. Prensky (2001) suggested that the increase in technology apparent in the modern day has given an alternative method of learning and that there is a definite need for a change in curriculum, in order to engage minds and initiate interest in the outdoors. Waite (2010) later built on this research and claimed there is a need to reverse the decline in provision of outdoor activity. He suggested that we should encourage policy makers to ensure that outdoor learning opportunities are maintained in schools to improve the well-being of children.

Whilst this research is of high importance in terms of physical and psychological implications for children's health, the same has been said for the well-being of all ages and backgrounds time and time again. There is also a wealth of literature to support the fact that time spent in the outdoors has positive implications for the psychological well-being of adults. For example, time spent outdoors and in nature has improved the well-being of individuals in retirement communities (Kerr et al, 2012), carers (Traynor et al, 2013), and adults with or without psychological health issues (Repke et al, 2018) among many others.

1.5 Government Policies and Third Sector Organisations

Schemes brought about by the UK Government including the 'Learning Outside the Classroom' manifesto published in 2006 by the Department for Education and Skills (DfES) and the '25-year environment plan' of 2018 have taken major steps towards putting the abundance of previous literature findings and suggestions into action. The 2006 'Learning Outside the Classroom' manifesto launched by the DfES outlined 7 main aspirational pledges to help encourage an increase in time spent learning outdoors. These included to provide a wide range of outdoor learning experiences to young people, make a case for outdoor learning to improve understanding and acceptance of the benefits, improve quality and availability of training and professional development, and identify ways to involve parents, carers and the wider community in learning outside the classroom. Whilst this manifesto largely focuses upon the educational benefits such as improving educational attainment, attendance and making learning more engaging, there were also increased psychological well-being points made throughout such as reducing behavioral problems, nurturing creativity and stimulating motivation. The 'Learning Outside the Classroom' manifesto (DfES, 2006) highlights the importance of children and young people gaining experience of the world beyond the classroom.

A further active method to involving the outdoors in everyday learning is the Forest School's approach which is a third sector organisation concerned with implementing increased contact with woodland. The Forest School community was established in 2002, however the most recent review of principles and criteria involved in the movement was in 2011. Forest School allows regular contact and familiarity with the outdoors and has been a huge success within the educational community. There are now over 100 Forest Schools in England, 20 in Scotland and 20 in Wales; the concept is ever-growing throughout the UK.

However, in recent years there has been a considerable increase in psychological health problems amongst young adults in the UK, motivating the Government to identify services

and preventative measures to combat the problem (Milligan & Bingley, 2007). Focusing more closely on the desired topic area, the 2018 '25-year Environment plan' brought about by The Department for Environment Food and Rural Affairs (DEFRA) looks at getting adults more connected and involved with nature and the outdoors. Specifically, chapter 3 sets out four clear objectives, these are; improving health and well-being through increasing the usage and accessibility of green spaces for people from all backgrounds, including through mental health services, encouraging children to become closer to nature (as previously outlined), making our towns and cities 'Green' by creating green infrastructure and planting one million urban trees. The last objective states that 2019 will be made a year of action for the environment, working with Step Up to Serve and other partners to help people from all backgrounds to engage with nature and improve the environment simultaneously.

Governmental movements and plans such as this have been fueled by the ever-growing research and findings in the area. The main literature relating to improving well-being through nature and the outdoors will be discussed in the following chapter.

1.6 Thesis overview

The aim of this thesis is to gain a detailed understanding of what it means to become connected to Nature, according to volunteers from a weekly outdoor gardening group. Chapter One has introduced the main context surrounding the area of environmental psychology and highlighted the current lack of time spent in nature, despite much beneficial evidence and various environmental policies and third sector organisations being set up. Chapter Two will focus on literature surrounding the theories of nature and well-being and follow with a discussion of relevant nature and well-being interventions. Chapter Three will discuss the method (semi structured interviewing) and methodology, Template Analysis by King and Brookes (2017), that were utilised in this research. Chapter Four will present the findings from this study and discuss the Template Analysis process undertaken. Chapter Five will include a discussion of the findings and Chapter Six will be a conclusion chapter, concisely summarising the work that has been undertaken from start to finish for this thesis,

providing a full overview of the phenomenon being explored. There will also be a focus on future implications for practice and research within this final chapter.

Chapter 2: Literature Review

This chapter presents a review of previous literature in the area of nature and the outdoors, the aims of which were to assess why becoming connected to nature is so beneficial to psychological well-being. To access this literature, I conducted a short systematic literature search using terms and phrases including; 'nature' AND 'well-being' AND 'gardening' OR 'horticulture' OR 'green-exercise' OR 'outdoors'. I began by using the university search engine, Summon, which incorporates several databases including PSYCHInfo, PubMed, CINAHL and MEDLINE. One thousand five hundred and eighty-two peer-reviewed articles were found, however few of these had direct relevance to the desired topic area, many focusing on particular groups of people becoming involved with nature. For example, how nature has been incorporated into the lives of school children (Cheng et al, 2010) and vulnerable groups of people for example, youth at risk of involvement with crime, ex-offenders and victims of crime, all of whom could benefit from nature-based interventions and rehabilitation (South & Brisman, 2013). Whilst these types of articles are based upon nature and the outdoors improving well-being for certain groups, they do not focus upon the desired context. The current research seeks to understand the experience of becoming connected to nature according to gardening volunteers and so articles focusing on populations of convicts, children and the elderly are less relevant to the current study. Some literature articles found looked at well-being, outdoor activity or time spent in green spaces, however these results were far too broad and strayed from the desired area of research. The search was then refined to exclude certain populations, keywords were inputted to refine the search, these included, 'schools', 'children', 'crime', 'offenders', 'elderly' and 'vulnerable'. 315 articles were found from this search altogether, a few of these were accessible and had good relevance to the literature search. Studies on nature-based interventions were selected including; MacKerron and Mourato (2013), and Mayer et al (2009), along with several review studies such as Capaldi (2015). These articles found on the Summon search engine were copied and pasted into Google Scholar, the 'find citing' tool utilised. This produced a range

of good related articles and provided a more focused literature base, including: Nisbett et al (2011), Hawkins (2013) and Pretty and Barton (2010). The literature review will begin by discussing the central theoretical approaches to nature and well-being, followed by a summary of past review studies in the area of nature and well-being interventions. A discussion of the Interventions that have taken place within the field of outdoor green-activities and well-being will follow.

2.1 Theoretical approaches to Nature and Well-being

2.1.1 What is Well-being?

Research concerning the psychological well-being of individuals has been growing over recent years, although some suggest that there was and still is a deficit in the clarification of what well-being actually is and how it can be measured or defined (Seligman, 2011). This discussion can be traced back to Ryff (1989) who stated that “the absence of theory-based formulations of well-being is puzzling” and highlighted that the way in which we define psychological well-being is still blurry and only broad definitions have been presented (Ryff, 1989, p. 35). As the question of how well-being can be defined has become more popular topic amongst researchers the need to be clear about what is being studied has become more important along with how this is interpreted and assessed. Dodge et al(2012) proposed a new definition for well-being and portrayed this on a see-saw diagram, signifying an individual’s fluctuating state between challenges and resources. The see-saw was designed to represent one’s need to get back to a set point for well-being, as well as a consistent need for balance. The resources (left side of the see-saw) and the challenges (right side) are elements that can have an impact upon the equilibrium of an individual, consequentially tipping the see-saw and well-being balance. Essentially, to have stable wellbeing is when one’s psychological, social and physical resources meet a particular psychological, social and/or physical challenge. When individuals encounter a higher number of challenges than they do resources, the see-saw alters, along with their wellbeing, and vice-versa. With

reference to the topic of nature, one's daily psychological/ social and physical challenges can often be 'balanced' through exposure to or involvement with the outdoors, and the natural environment can become their 'resource' to level out the see-saw and improve their subjective feelings of well-being. The proposed see-saw definition is universal and allows for differentiation between individuals, therefore allowing a definition of well-being that can be measured to an extent whilst still allowing well-being to be viewed as a subjective experience.

Now that a notion of what well-being is and how it can be defined in research terms has been discussed, it can now be linked to the subject area, nature. Much research has concentrated on nature and well-being and how being in contact with the outdoors significantly improves psychological well-being (Capaldi et al, 2015). Kellert and Wilson (1993), Bhullar and Snell (2018), Bratman et al (2015) and Herzele and De Vries (2012) among many others suggested that there are three major theories that address the question of why connecting with nature is so beneficial to our wellbeing: biophilia, attention restoration, and stress reduction.

2.1.2 The Biophilia Hypothesis

The biophilia hypothesis suggests that our ancestors' well-being and survival depended on connecting with nature (i.e., for finding food and water and navigating), and puts forward an explanatory suggestion that human affinity and affiliation with nature, the green environment and living things are based on genetic and environmental adaptation processes (Wilson, 1984). Wilson (1984) states that this love of living things, including the natural environment, helps to maintain and preserve it. Research by MacKerron and Mourato (2013), supports this theory and suggests that individuals are significantly happier outdoors and in green or natural habitats than they are in urban environments. Humans have begun living in urban environments only recently, therefore the draw to nature likely remains an innate part of who we are. Wilson's psycho-evolutionary model suggests that a restorative response in a non-

threatening situation is a valuable advantage with regards to natural selection. Furthermore, the human body would be biologically prepared to learn this response to the natural environment.

Whilst this hypothesis has been a dominant theory since 1984, it is not without critique. Kahn (1997) outlines methodological flaws in biophilic research, questioning whether scenes of nature that are often used are preferred, due to an innate affinity with the environment, or a liking of the specific aesthetics. The ambiguous nature of the theory makes any testing of the concept of biophilia difficult. Whether it is due to a lack of evidence or an inability to test the hypothesis directly, research into the theory of biophilia has declined over recent years (Yannick et al, 2011; Lumber et al, 2017). However, the biophilia hypothesis continues to be a catalyst for research in the area of nature connectedness and research focusing on the human-nature relationship. For example, it has assisted in the creation of two new measures of connectedness with nature; the Nature Relatedness scale (Nisbet et al, 2009), and the Love and Care for Nature scale (Perkins, 2010). Research in the area continues to develop (Lumber et al, 2017).

2.1.3 Attention restoration theory

The Attention Restoration Theory (ART) by Kaplan (1995) suggests that people have a certain capacity in their mind to direct their attention or focus on a task and process information (Ohly et al, 2016). Kaplan went on to discuss how our directed attention is limited and can become exhausted after prolonged use and, when depleted, may lead to negative emotional states and declines in cognitive performance. Kaplan (1995) stated that once the capacity for attention is lost, individuals may find it difficult to focus on tasks which would lead to poor productivity, irritability and impatience. This raises the question of how best this ability to direct attention could be restored. Kaplan (1995) found that sleep is an effective method for such restoration, although he also stated that sleep alone was not enough. He theorised that actually one should take part in activities that require little attention because

activities requiring involuntary concentration would allow the voluntary concentration part of the mind to rest. Kaplan (1995) specified that the environment, and associated activities, must meet four requirements. Firstly, the environment and activity chosen must not require direct attention, or concentration. Secondly, the individual needs to be 'away' either physically or mentally, from their usual surroundings. Thirdly, the environment must be rich enough to maintain this involuntary attention. And finally, the chosen environment should be compatible with the individual and the purpose of the restorative experience. In other words, the chosen environment should be somewhere you want to be with activities you want to take part in or sights you want to see in order to be restorative. By adhering to these four factors, Kaplan (1995) suggested that the direct attention capacity could be restored, and the individual should be able to concentrate again.

Natural environments are often particularly restorative as they provide the opportunity to get away. They contain fascinating and rich stimuli that engage our involuntary attention and allow us to act without the need to constantly assess our behaviour (Kaplan, 1995; Hartig, 2003; Ohly et al, 2016). With regards to the current research focus, gardening could meet all four of the requirements outlined above. Whilst gardening you are surrounded by nature in a serene environment, with little attention required. For a lot of people gardening can be a time of rest and escape from reality and so complies with the second condition of being 'away'. There are certainly a lot of sensory aspects involved with plenty to see and do to maintain involuntary attention in nature, and if one wishes to spend time gardening in the outdoors and the activity is compatible with the individual, then all four requirements are adhered to. ART provides an alternative explanation for nature's beneficial effects (Kaplan, 1995; Hartig, 2003; Ohly et al, 2016).

2.1.4 Stress-reduction theory

Ulrich et al (1991), however, disagreed with Kaplan's ART and felt that a more general model of restoration through stress reduction was more suitable. Stress-reduction theory

(Ulrich et al, 1991) suggests that exposure to particular natural environments that were evolutionarily beneficial for well-being and survival automatically causes a variety of stress-reducing psychophysiological responses. Compared to urban environments, nature can decrease arousal and perceived stress levels and promote psychophysiological stress recovery (e.g. decrease blood pressure) after attentional abilities are fatigued (Hartig et al., 2003). Evidence suggests that contact with nature can lower pulse rates, reduce cortisol levels, and improve immune functioning (Bowler et al, 2010). Ulrich et al's (1991) stress reduction model disregards the cognitively focused research by Kaplan (1995) and instead attempts to demonstrate more generally how nature can be beneficial in reducing stress, which consequently can have a positive impact upon physical and psychological health and well-being.

Arguably a major issue with each of these theories; biophilia, attention restoration and stress reduction, is how we form a definition of 'nature'. Which particular environments count as nature and which do not? At what point do urban areas become rural? The interpretation of Nature will undoubtedly vary from person to person and so a single definition is difficult to form (White et al, 2013). Can we be certain that individuals enjoy the natural environment due to a pre-disposed natural draw to the outdoors? Or could this be due to something simpler such as the serenity of a natural environment? Further research in the area would allow the Biophilia hypothesis to be supported further. It should also be noted that not all individuals will find natural environments restorative, stress-reducing or feel a draw towards nature. For example, a change in environment for an individual who lives in the city may restore feelings of serenity not due to being in nature, but because it is different. The serenity of nature may be the attraction, rather than an innate response as is suggested in literature. Additionally, the theories listed above are quite mechanistic and tend to be physiologically or psychologically focused. These theories seem to overlook a more nuanced account of the subjective experience of connecting to nature. This is a clear gap in the literature.

2.2 Interventions

Aside from the theories of nature and well-being, past research suggests that there are positive implications associated with spending time in nature and much of this has focused upon certain groups of individuals. For example, Duggan et al (2008) discussed how people diagnosed with the onset of early dementia value time in the outdoors for reasons including exercise, fresh air, emotional well-being, social opportunities and the appreciation of the countryside. This is contrasted with feelings of depression when spending time in nature was not an option. Duggan et al (2008) suggest that nature and outdoor activities should be considered in planning for both residential care and community living in the future. Similarly, Gonzalez et al (2010) discussed how nature and the outdoors has positive impacts upon those diagnosed with clinical depression. Patients who took part in the therapeutic horticulture program were found to show significantly lower scores on the Beck Depression Inventory scale (Beck et al, 1988), during the intervention and continued to do so for a further three months after the program was complete.

Reviews have been published in the area of nature & well-being for example, Capaldi et al (2015) who reviewed the extensive previous research on the psychological health benefits of connecting with nature. The benefits of connecting with nature as a potential well-being intervention were discussed within Capaldi's work. This included work by Mayer et al (2009) who found that experiences in nature appear to provide the freedom to be one's authentic self. Mayer et al. (2009) highlighted that participants who were randomly assigned to go for a walk outdoors reported significantly reduced public self-awareness, having a more meaningful experience and experiencing more positive feelings including happiness. Similarly, MacKerron and Mourato (2013) explored the relationship between subjective well-being and individuals' typical surroundings within the UK, using signals from a smartphone application. Again, similar conclusions were made. There are far too many studies and reviews such as these to mention within this short literature discussion, however the point that nature and the outdoors have positive impacts on certain groups of individuals is clear.

This substantial evidence highlighting the benefits of spending time in the outdoors has led to the growth of various nature-based programmes. These programmes are diverse in their design, utilise a range of settings and have specific target populations. For example, as previously discussed green exercise (partaking in physical activity whilst being directly exposed to nature) shows significant positive effects on blood pressure, self-esteem and mood according to Pretty et al (2005). Further research by Pretty and Barton (2010) outlined the optimum 'doses' of green activity required to improve self-esteem and mood. This multi-study analysis showed that every green environment depicted improved self-esteem and mood, with alternative locations showing greater effects e.g. when in the presence of water greater effects were generated. Pretty and Barton (2010) stress that the outdoors provides an important health service for all individuals.

Care farming is another example of an intervention approach that has become more popular since the 1990s, with research into the phenomenon originating from the Netherlands (Elings & Hassink, 2008; Hassink, 2014) and continuing to grow over recent years (Care Farming UK, 2018). Whilst it is a more established intervention modality within the Netherlands (De Boer et al, 2017), it is also becoming a more recognised phenomenon in the UK (Care Farming UK, 2018). Much research has looked at what care farming is and why green care is so beneficial (Mag et al, 2010). Care farms have been compared with more mainstream and traditional care programmes on numerous accounts (De Boer et al, 2017), results for the most part showing greater levels of care and higher quality of life scores from residents of green care farms in comparison with residents of traditional nursing homes. So far, green care farms seem to be a valuable supplement to existing nursing homes (De Boer et al, 2017).

Therapeutic horticulture is another useful intervention for a range of vulnerable groups of people, from individuals with psychological health problems to those with learning disorders (Kamioka, 2014). The effectiveness of therapeutic horticulture programs has also been assessed extensively (Sempik et al, 2014). Sempik et al (2014) performed routine

assessments during numerous therapeutic programs and found that social and therapeutic horticulture provides the opportunity for social interaction. The programs were effective in promoting interaction, social inclusion, healthier psychological states and improved sense of well-being among vulnerable and isolated groups.

Many more interventions within the field of nature and the outdoors have been created over the years in attempts to improve well-being for individuals including Green exercise activities (Pretty et al, 2005), wilderness-based therapy (Clark et al, 2004) and Animal-Assisted Activity (Majic et al, 2013), all of which have been found to be beneficial to a variety of groups in some way, whether this be improving social skills, psychological well-being or helping alleviate specific issues such as depression or aggression. A few areas of research have explored the restorative effects of gardening on both physical and psychological well-being (Scott et al, 2015; van Lier et al, 2017) and nature's usefulness in 46 outdoor-based rehabilitation programmes (Sonntag-Öström et al, 2017). Such diversity in nature-based interventions makes it difficult to structure a clear overview of the literature in terms of relevance to the current study. Numerous intervention reviews have been published in the past which assess the current knowledge in relation to different kinds of nature-based interventions. Some have focused on particular types of intervention and which areas they may assist in the most, such as horticultural therapy (Kamioka et al, 2014), animal-assisted therapy (Nimer & Lundahl, 2007) and gardening (Clatworthy, 2013).

The various interventions and reviews discussed above evidence that being in and around nature and connecting with the outdoors is healthy and can aid in a variety of situations to enable a better sense of well-being. Therefore, the proposed research study will explore what it means to become connected to nature and focus on the perceived benefits of taking part in a voluntary nature programme. The nature programme utilised in the current study will now be introduced.

2.3: Volunteering with Support to Recovery (S2R)

Whilst on the topic of recent nature interventions involving gardening and horticulture aspects, it would make sense to introduce the intervention used within the current research study here. Prior to beginning my research, I spent some time volunteering with a local charity based in Huddersfield called Support to Recovery (S2R). I was unsure on a topic for my thesis and so got involved in a variety of groups and activities that S2R supervise. S2R is a local mental health charity based in Huddersfield which provides a variety of well-being services for people in the Kirklees area. The activities available at S2R fall into three main categories: creativity, well-being and mindfulness and the outdoors. Whilst volunteering here I had the opportunity to get involved with a variety of activities and interventions including working with local schools on pilot nature and well-being programmes, mindfulness and meditation talks, outdoor well-being activity days and well-being awareness talks. Amongst the numerous activities overseen by S2R there is a weekly programme involving a 'poly-tunnel' growing group which seeks to get people closer to nature, whether this be to improve well-being or just for fun. Anyone from the Kirklees vicinity is welcome to join this group and so a variety of individuals are involved. This interested me as there is an obvious interest in the outdoors even though the vast majority of research suggests that a growing number of people are becoming disconnected from nature (MacKerron and Mourato, 2013). Through getting involved with this group I gained my research aim of 'understanding the experience of becoming connected with nature', as it was clear that those involved in the group had become connected to the outdoors and were enthusiastic to discuss how it came about, and their experiences so far within the group. S2R provide a range of inclusive programmes and interventions designed for all individuals, and the interest in the outdoors displayed by those involved seemed a very fitting place to begin research. The following section will discuss the rationale for my research.

2.4 Rationale

From my review of literature in the area of nature and well-being, it is clear there are numerous therapeutic advantages to spending time in the outdoors. Much research has looked at nature connectedness, in terms of how it is beneficial for our psychological well-being (Mayer and Franz, 2004; Mayer et al, 2009; Capaldi et al, 2014). However little research has focused upon what individuals gain from being involved in nature interventions and what they value about the experience, from a first-person perspective. , I feel this is a definite gap in literature. It is evident that nature connectedness has important implications for psychological well-being. However, discovering why from a first-person perspective would firstly be interesting, but secondly bridge the gap between nature connectedness' theoretical understandings and the outcomes that being connected to nature can bring. Previous research has often measured variables quantitatively (Capaldi, 2014), as also seen in the work by Mayer and Frantz (2004), which produced one of the most systematically studied scales and is frequently used as a quantitative measure of the subjective connection between individuals and nature. Whilst work such as this is important and successful, quantitative approaches continue to dominate, perhaps due to the idea that measuring connectedness to nature offers a more tangible and straightforward insight.

However, some previous research in the field of green exercise and nature uses qualitative methods (Garst et al, 2010; King, 2012; King et al, 2016) and has been successful when used with non-clinical populations, which influenced me to use a qualitative approach in my current study. Based on my understanding of past research and certain areas which could be built upon, the proposed study seeks to understand the experience of becoming connected to nature and volunteering in the outdoors with S2R. Using a qualitative approach and analysis, greater depth will be allowed and therefore a deeper understanding of what it means to become connected to nature will be gained. The Method and Methodology used in the current study will be discussed in depth in chapter 3.

Chapter 3: Methodology and Method

The following chapter will outline the methodology and method utilised within this thesis, along with the process of analysis and a description of the participants involved.

3.1: Methodology

The aim of the current study was to gain a better understanding of the experience of becoming connected to nature, according to ten adult volunteers from a weekly growing group in Huddersfield. A qualitative approach was selected for this research as detailed and rich data was required. Through the use of a more experiential approach, a full exploration of the phenomenon of gardening will be allowed and meaningful data will be collected that answers the research question. Furthermore, many of the past theories discussed in Chapter 2, including the Biophilia Hypothesis (Wilson, 1984), Attention Restoration Theory, (Kaplan, 1995) and Stress reduction (Ulrich, 1991), focus largely on quantitative evidence and cognitive implications. Therefore, more qualitative evidence is required to provide an experiential view on why becoming connected to nature through interventions can be so beneficial to well-being.

Prior to beginning data collection, I spent a couple of weeks partaking in the gardening group, getting to grips with the activities that they are involved with and getting to know the volunteers personally. This allowed me to build a rapport with the participants so that they felt more comfortable in discussing their experiences with me. It also gave me a chance to observe the sessions to gain a better understanding of what goes on there. Semi structured interviews were utilised in order to access as much rich and experiential data as possible. Other methods including questionnaires were an option, however the qualitative style would have been lost, with the questions being difficult to word effectively to get the desired information. The data from a questionnaire would not have produced as rich data that was collected through semi structured interviews. Similarly, focus group may have had limitations on the amount of detailed data collected. Participants may not wish to discuss more personal

topics within small groups, therefore the individual interviews were a better option. The interviews utilised collected enough detailed data to allow me to utilise Template Analysis (King & Brooks, 2017). Arguably, interviews can be time consuming and complex and much preparation was required prior to meeting each participant. The times and places of the meetings had to be agreed upon and the interview questions need to be pre-determined with appropriate probes and prompts noted down. Once the interview has been carried out, the transcription process can then begin, which is also very time consuming. However, interviews are still the only method that will allow the level of depth required to answer the experiential research question and were the only realistic option for this study.

Thematic Analysis continues to be among the most popular and widely used technique across qualitative research as a whole (King & Brooks, 2017), despite the numerous alternative approaches including; discourse analysis (Wetherall et al, 2001) and techniques that strive to identify the 'essence' of phenomena (Giorgi & Giorgi, 2008). The qualitative approach to research lends itself to a Thematic approach and methodology for numerous reasons. Template Analysis (King & Brooks, 2017) was selected firstly, because it is a generic style of Thematic analysis and so no theoretical commitments needed to be decided, prior to the commencement of data collection. This was useful for the current study as I was unsure of my position as a researcher prior to having the opportunity to begin collecting data. This enabled the research to run more smoothly, with data being collected before any positions were decided upon. The differences between methodology-specific and more generic approaches are important. Methodology-specific approaches are used within a wider methodological framework with their own philosophical and/or theoretical commitments which must be adhered to throughout the whole research process. For example, well-known examples such as Interpretative Phenomenological Analysis (IPA) (Smith et al, 2009) and Grounded Theory (Corbin & Strauss, 2015) focus on the social processes relating to a particular setting (community or group) and therefore don't allow a researcher to collect their data and then afterwards decide upon using IPA or Grounded Theory. It is required that this

decision is made prior to beginning data collection, as this decision will influence the sampling of participants, collection of data and the presentation of findings, not only how data is analysed. The use of these approaches requires the researcher to adopt the methodology as a whole from start (data collection) to finish (presentation of findings and conclusions). Alternatively, generic styles such as Template Analysis are not automatically tied to a single methodological approach or philosophy. Rather than simply adopting the whole methodological package as part of the wider methodology the researcher must define their position for their study and work through its implications (King & Brooks, 2017).

King and Brooks, (2017) highlight that the researcher should have a clear philosophical or theoretical position from the start. Therefore, I will adopt a Limited Realist position, as the research will seek to draw upon conclusions about the real world in which the gardening group operates, but I will not claim to be able to step outside of my subjective position and achieve objective conclusions. Also, a *priori* themes that were informed by past theories were included within the research. This feature within Template Analysis makes it a more fitting method than other options such as IPA (Smith et al, 2009), for example, which does not incorporate the a *priori* theme feature.

Template Analysis will enable a thorough and professional job of analysing data collected from real-world settings, whilst balancing flexibility and structure with the handling of this data. This research aims to gain a detailed understanding of a human experience, therefore a thematic style is perfect for getting to the heart of such experience and carefully selecting the core themes that can define the experience of becoming connected to nature. Template Analysis will do so effectively and efficiently. Types of Thematic Analysis usually follow a fixed sequence of building up a coding structure, often with the aim of staying close to the data collected and avoiding the premature production of more interpretive themes (Braun & Clark, 2006; Smith et al, 2009; Corbin & Strauss, 2015). Template Analysis however allows a more flexible approach to creating a coding structure and does not insist that the more interpretive forms of coding are only used after the descriptive stage. Template analysis

usually encourages a greater depth of coding that alternative approaches do not, therefore producing data that are rich and highly relevant to the research aims.

3.2: Method

3.2.1: Sampling

In order to ensure maximum variety in terms of gender, age and employment I sampled opportunistically from the current attendees at the gardening sessions. However, participants had to be 18 and over to take part and must have attended the gardening sessions for a minimum of three months to ensure a good knowledge of the activities going on within the group.

3.2.2: Participant Recruitment

My participant base consisted of ten adults who have taken part in the weekly 'Poly-Tunnel' gardening group located in Huddersfield for more than three months. This group is set up and overseen by volunteers at the local mental health charity S2R and takes place every other Monday morning. The ten participants (seven males, three females) were volunteers at the gardening group, recruited by word of mouth and who heard about my interest in interviewing the group for my MSc by Research at The University of Huddersfield. Seven of the participants contacted me directly whilst I was present at my first session and enquired about what I needed. I discussed an overview of my research with them and they agreed to meet at subsequent sessions for interviews. I approached a further three participants to enquire if they would be interested in participating. The purpose of this was to recruit more females and younger participants, to allow a more diverse sample. All those involved were 18 or over and could give full permission for research to be undertaken. Written permission was also gained from both S2R representatives and the group leaders at the Poly Tunnel group. The participants were either from working backgrounds, retired or currently unemployed and a range of ages (25-65) and genders were involved (see Table 1). Consent

forms were handed out, signed and returned to me prior to the interviews taking place (Appendix A). Whilst none of the participants were referred to the programme for any psychological health issues such as Depression or Anxiety, psychological and lifestyle difficulties were still brought up within the majority of the interviews carried out, these topics were discussed sensitively.

Table 1. Table of Participants.

Name	Gender	Age	Background
Andy (Pilot)	M	60-65	Retired
Ell	F	45-50	Hospice work part time
Dan	M	30-35	Engineer
Rob	M	30-35	Maintenance work
Sam	F	45-50	Volunteer
Jim	M	25-30	Unemployed
Bill	M	50-55	Retired
Jack	M	45-50	Employed part time
Pete	M	60-65	Retired
Jackie	F	60-65	Retired

3.2.3: Data Collection

In order to meet the research aim, ten semi-structured interviews were conducted to collect data. Semi-structured interviews were selected as they allowed the opportunity to gain the richest data from all participants. In terms of preparation, I had the opportunity to write down any prompts or cues that I thought may be of use within the interviews, in order to gain the maximum detail and depth from each answer given. Of these ten interviews one was intended to be a pilot; however rich and detailed data were collected, and the decision was made to include this within analysis. As the interviews were semi-structured, I could ensure that all of my questions were asked whilst being flexible enough to allow opportunity for participants to discuss areas that they deemed important. This way each interview was a little different with individual experiences discussed and individual questions formed, however I do not allow participants to stray too far from the desired topic area.

Questions involved in the interviews focused upon the experience of connecting to nature within the group, (Appendix B) for example;

How did you first get involved within the group?

What have you gotten out of attending so far? (specific examples).

The full topic guide can be seen in Appendix B. Prompts were also written down to use within interviews to enable participants to develop their answers which allowed greater depth and individuality to be incorporated. For example;

Can you think of a specific example of this?

The ten interviews carried out varied in time from 45 minutes to an hour, all producing enough data to enable a thorough analysis. The majority of these were carried on Mondays where the group meet weekly, this was both convenient for me and the participants and enabled me to include myself in the activities going on whilst conducting interviews. The pilot interview was carried out back at S2R, with one of the representatives who is involved with the gardening group.

3.2.4 Ethics

Ethical approval was gained through the University's School Research Ethics Panel (SREP) prior to the start of the project. An application was filled out which required a summary of the proposed research including its aims and research methods (See Appendix C).

Ethical guidelines were abided by throughout and the interviews largely took place in Huddersfield during some of the sessions taking place. Permissions were gained from both S2R representatives and the participants themselves. Participants were fully aware that they were able to stop the interview at any time and withdraw from the research should they wish. Pseudonyms were used throughout all transcripts to ensure confidentiality and anonymity. Recordings and transcripts taken from each interview were stored in a password protected computer, and only ever seen by myself and my research supervisors.

3.3: Data Analysis: Doing Template Analysis

As discussed earlier in this chapter, Template analysis is a systematic approach to coding qualitative data; it also a flexible technique that promotes the use of hierarchical coding. This type of analysis involves the development of a coding template, usually on the basis of a subset of data, which is then applied to further data and adjusted accordingly. Template Analysis does not require that the researcher distinguishes between descriptive themes and interpretive themes if this is not helpful. This approach is therefore very flexible in that the style or format of the template produced allows the researcher to develop their own coding structure in a design that best represents their themes and research aims. There is a total of six steps typically taken when carrying out Template Analysis. These are; familiarisation with data, preliminary coding, clustering, producing an initial template, applying and developing the template and final interpretation. A seventh step that can be taken however is quality checks, which are concerned with evidencing the value of the research undertaken. Each of these steps will now be discussed in detail.

The first step is consistent with most other forms of qualitative analysis, this is to familiarise oneself with the data collected. All ten interview recordings were firstly transcribed individually (on separate occasions). With some of these lasting for around an hour, the task was lengthy and time consuming, although this was a perfect opportunity to begin the process of engagement and reflection on the data. Once an interview was transcribed I would read it through at least once to ensure I was familiar with areas discussed and the general direction of the discussion. After a few interviews were transcribed it was possible to see a potential subset of data being produced. This subset should include items (interviews) that represent a good cross-section of the whole of the data; if the sub-sample is very homogeneous then early versions of the template will be difficult to apply to the subsequent data (King & Brooks, 2017).

The next stage is also essentially the same process used within most thematic approaches. Preliminary coding simply means going through the data and beginning to identify things within the text that seem likely to be helpful in contributing to the overall understanding of the research topic (See Appendix D). There are a variety of methods available by which to carry out this step such as the use of software packages like NVivo (King & Brooks, 2017), however due to the time limit for my thesis and research it was more efficient in my case to carry out this process manually. I changed the format of my documents to double line spacing and wide margins on each side of the page before printing them out. I then read through each transcript individually and highlighted any sections that were of interest and wrote a brief summary explaining why these parts may be useful. The next step was to use these preliminary comments to start defining potential themes from data. At this point it is important to consider what a theme actually constitutes in Template Analysis. King, (2012) defines themes as 'recurrent or distinctive features of participants' accounts, characterising particular perceptions and/or experiences, which the researcher sees as relevant to the research question' (King & Brooks, 2017, p28). Some examples of the initial themes that I highlighted at this point are; break from normality, enjoyment of social time, new friends made, positive feelings, learning new things and enjoying nature amongst many others.

A *priori* themes are defined as 'themes identified in advance of coding'. The *a priori* stage is where the researcher may begin utilising and a *priori* codes that they have defined at the outset of the research, although while Template Analysis allows this, this stage is not obligatory, and these themes do not have to feature within research. A *priori* themes are usually used when a researcher has started out with an intention of focusing on particular aspects of a phenomena. These themes may also be utilised when the importance of a particular issue in relation to the topic area is already well established within past literature. A *priori* themes can also be useful in accelerating the initial coding phase. In my case, there is extensive past research which highlights some past themes that can be associated with nature and well-being. Therefore, I came up with four *a priori* themes which are all linked to

past literature and were discussed within Chapter 2. These are; Oneness with nature (Mayer et al, 2009), Escape (Kaplan, 1995), Stress reduction (Van Herzele & de Vries, 2012), Social interaction (Sempik et al, 2014). In selecting these themes, I was able to have something to look out for within my data, which allowed quick links to be made between my research and themes that have already been evidenced in past work. Whilst these a *priori* themes were selected for having relevance to my topic area and being evidenced previously, it is suggested that these should be used tentatively. King and Brooks, (2017) suggest that researchers should be open to the possibility that the a *priori* themes selected may not prove relevant or useful as analysis proceeds and may need to be redefined or discarded later on.

Once themes have been identified within the data collected the researcher can begin to organise these into meaningful clusters and begin to think how all these themes relate to each other within and between the clusters formed. The researcher can move all of the themes around within the emerging structure until they are placed into the cluster which works best or makes the most sense. Whilst undertaking this stage, I found that trying to sort all of my preliminary themes into groups to be very confusing and time consuming. So, I made post-it-notes with all of my emerging themes written down (as suggested by King & Brooks, 2017), which made the structuring and clustering of themes more visual and more easily grouped together.

Other examples of qualitative analysis insist that all preliminary coding must be undertaken on the entire data set before a researcher can proceed any further. However, Template Analysis does not specify at what stage template formulation may begin, allowing an initial template to be developed on a basis of a subset of the data. The danger with doing this so early on within analysis is that the researcher may become over-sensitised to material that easily fits the early template, therefore enabling material that is not as obvious to be missed, even though it is of interest. However, undergoing preliminary analysis is not only pragmatic but also in a study with a set deadline such as mine, it may even be impractical to wait until all data has undergone preliminary analysis before proceeding. Proceeding earlier with an

initial template allows the researcher to focus upon the areas of greatest relevance.

Template Analysis also puts emphasise on hierarchical coding, meaning groups of smaller codes are clustered together to produce more general higher order themes. These top-level themes may be elaborated on in the form on sub themes and researchers can include as many levels as are necessary to explore their research aim. However, the depth rather than breadth of coding is key, researchers are encouraged to explore rich areas concerning their topic of interest in depth to produce representative themes, whilst keeping their aims in mind. Template analysis also allows parallel coding, that is the same sub theme within two or more distinct themes. Therefore, whilst there is emphasise on Template analyses as a hierarchal organisation of themes, it may also highlight lateral relationships at times, through separate thematic clusters. These are known as integrative themes. In my case, I undertook preliminary analysis on the first three interviews conducted to form an initial template and then moved on to the next step of developing the template with the other five interview transcripts.

Once the initial template has been created, the next stage in the analysis process is to go back to the data and apply it to new material. This means going through data systematically and identifying parts of the text that can be linked to the research aim and putting them with the relevant code or codes. The researcher then needs to establish whether the new codes fit with any of the themes within the initial template; if this is not the case then the template may need to be modified. These modifications can involve adding new themes, updating existing themes, merging themes, changing the scope of themes or even deleting them. There is no fixed number of how many alterations a researcher should make, and one should continue to do so until the final version is satisfactory in providing a rich and comprehensive representation of the data collected. The template in the current research was changed three times in total. The themes that were changed are discussed in Chapter 4.

Once the final version of the template is complete the last stage is to revisit the data and apply the template one more time to ensure it is representative across the whole data set. The template can then be used to provide a basis for any interpretation of data; in this case the research thesis findings and discussion will be backed up by the final interpretation. This interpretation often includes sections on examining patterns of themes, prioritising themes and finding and developing connections. With regards to this thesis, the interpretations will be discussed in subsequent chapters.

3.3.1: Quality Checks

A further step that can be taken in order to evidence the value of the research presented is to perform quality checks on one's work. In order to do so the researcher must establish which quality criteria is best suited to their work. King and Brooks, (2017) discuss three approaches to quality checks. Firstly, the criteria for quantitative research can be applied with some adaption, mainly reliability and validity. Most researchers suggest that reliability is solely for use within quantitative methods of study, as it is a measurement concerning accuracy and consistency (Blumberg et al, 2014). However, if reliability is to be a term within qualitative research then it can only really be concerned with a neo-positivist position, with work that utilises a realist epistemology (King & Brooks, 2017). Validity on the other hand is a little harder to place. Within quantitative research the terms internal validity and external validity are utilised, however within qualitative research ecological validity is commonly seen. Ecological validity refers to the extent to which the research is consistent with real-world context of the phenomenon under investigation (Braun & Clarke, 2013). Whilst the use of ecological validity is fitting with qualitative neo-positivist research and realist ontologies, many contextualist and radical constructionist positions present issues with the idea of validity within qualitative research. Researchers such as this often seek alternative criteria or dismiss the notion of criteria entirely.

Many attempts have been made to establish alternative criteria including general criteria which aim to be relevant to any qualitative research undertaken (Yardley, 2008; Tracey, 2010). However, King and Brooks (2017) summarise by suggesting that researchers should endeavour to identify the relevant criteria in line with their approach and justify this choice accordingly. Once the appropriate criteria are identified the researcher must consider how they will demonstrate quality against them. Some of the main strategies here include; independent coding, respondent feedback, keeping an audit trail and detailed descriptions with use of quotes. With reference to the current research, keeping an audit trail and including detailed descriptions of quotes were two strategies utilised, this will be discussed in more detail in chapter 5.

3.3.2: Analysis Procedure

In line with the Template analysis method by King and Brooks (2017), all six stages were adhered to. I firstly familiarised myself with each of the ten interviews as and when they had been transcribed (due to the nature of my data collection, the first few interviews were collected before others and so could be transcribed whilst I was waiting to conduct the following interviews). Next, as with other styles of Thematic Analysis, I began the preliminary coding stage. This identified the recurrent features that ran through the participants' dialogue, and that may contribute to the understandings of becoming connected to nature. Examples of the preliminary codes that were highlighted at this stage include; a break from everyday routine, social interaction, meeting new friends, positive feelings, getting me-time, learning new things, peacefulness and enjoying nature amongst a long list of others (see Table 2). The preliminary codes were then used to begin defining potential themes.

At this point it should be noted that prior to beginning the coding stage, 4 *a priori* themes were selected in accordance with the literature discussed in previous chapters. These are themes that were selected due to their relation to literature and were expected to be evidenced within the participant accounts. The four *a priori* themes are as follows; Oneness

with nature (Mayer et al, 2009), Escape (Kaplan, 1995), Stress reduction (Van Herzele & de Vries, 2012) and Social interaction (Sempik et al, 2014). With these themes tentatively in mind I was able to accelerate the initial coding stage and move on to Clustering. An initial template was formed from the data collected from the first three interview transcripts, this was then applied to each subsequent interview. Fifteen Themes were identified. I organised the 15 themes into more meaningful clusters to produce 6 overarching themes: Escape, Identity within a Community, Becoming one with Nature, Feeling good whilst in Nature, Psychological Relaxation and Learning new things (See Table 2 in the next chapter). Each of these will now be discussed with reference to the Final Template.

Chapter 4: Findings

4.1: Final Interpretation

The final template presents each of the 6 overarching themes, as discussed above, as well as the 15 themes and preliminary codes that were extracted from the interview transcripts (See Table 2). In line with the Template Analysis method by King and Brook (2017), this Final Interpretation is representative of the data collected in the research. The Final Template presents 6 themes that allow a better understanding of the experience of becoming connected to nature, according to volunteers from the weekly gardening group, supported by S2R. This Table is displayed on the next page. (See Table 2).

Table 2: Final Template

<p>1. Escape</p> <ul style="list-style-type: none">1.1 Getting away<ul style="list-style-type: none">1.1.1 Getting out of the house1.1.2 Getting away from family/work1.1.3 Feeling guilty1.2 Break from normality<ul style="list-style-type: none">1.2.1 Trying something different1.2.2 Something to look forward to each week1.2.3 More exciting than everyday job1.2.4 Break from everyday routine <p>2. Identity within a Community</p> <ul style="list-style-type: none">2.1 Belonging<ul style="list-style-type: none">2.1.1 Part of something2.1.2 Second home2.1.3 Community spirit2.2 Togetherness<ul style="list-style-type: none">2.2.1 Working together to achieve goal2.2.2 Family2.2.3 Relationships formed2.3 Socialising<ul style="list-style-type: none">2.3.1 Identifying with friends2.3.2 Enjoyment of social interaction2.3.3 New opportunities <p>3. Becoming one with Nature</p> <ul style="list-style-type: none">3.1 Enjoying nature<ul style="list-style-type: none">3.1.1 Taking in surroundings3.1.2 Fresh air3.1.3 Happiness3.2 Sights and sounds<ul style="list-style-type: none">3.2.1 Nature all around3.2.2 Green space amidst urban grey3.2.3 Peaceful surroundings3.3 Growth<ul style="list-style-type: none">3.3.1 Watching new things grow3.3.2 Nurturing growing things <p>4. Feeling good whilst in Nature</p> <ul style="list-style-type: none">4.1 Positive association<ul style="list-style-type: none">4.1.1 Grateful4.1.2 Feeling good whilst in nature4.1.3 Rejuvenating qualities4.2 Worthwhile venture<ul style="list-style-type: none">4.2.1 Proud4.2.2 Achieve something good for environment4.2.3 Improving the community <p>5. Psychological Relaxation</p> <ul style="list-style-type: none">5.1 Meditational qualities<ul style="list-style-type: none">5.1.1 Almost like meditation5.1.2 Peace5.2 Relaxation<ul style="list-style-type: none">5.2.1 Unwind5.2.2 Undisturbed time5.2.3 Me-time5.3 Worries <p>6. Learning new things</p> <ul style="list-style-type: none">6.1 Learning transferrable skills<ul style="list-style-type: none">6.1.1 Gardening skills to use in own garden6.1.2 Communication skills6.2 Learning the benefits of being outdoors<ul style="list-style-type: none">6.2.1 Psychological and physical
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4.2: Escape

'Escape' or getting away, was one of the most frequently discussed topics throughout all of the interviews conducted. However, each participant portrayed this in their own way. For example Andy, who I conducted the pilot study with, is an S2R representative and so often mentioned how it's 'like having an hour break or so away from work' and seemed to enjoy the time spent with the group, 'It's like a separate playtime almost'. Whereas others made comparisons to their home lives, Jackie for example spoke about how she 'loves the difference it makes' to her week and jokes that by attending the group she can 'get away from the washing up and housework for a few hours'. Later on in her interview, she made a clear indication that it is a well needed escape from home life, 'you know I've got 3 kids and a very needy husband, sometimes you just need some space, away, for a little while'. Evidently both Andy and Jackie have reasons to view attending the growing group as an escape from various aspects of their lives; this is mirrored in other accounts. Rob for example, refers to volunteering being like an escape,

'well my work is industrial and so all I see all the time is machinery and grey things, it's nice to be able to come over here every week and get away from all that'.

He makes a good comparison here about his work and volunteering with the group, suggesting that attending the weekly sessions gets him away from everyday work. Eil also makes this point clearly,

'it definitely helps to get me away from the hospice every now and then, I suppose it is a bit of an escape, like time to forget about everything bad going on in the world'.

She goes on to make a link between the group and her family,

'it sounds bad, but I also feel like I'm escaping from my family for a bit, you know it's an excuse to get out of the house on my days off'.

Here she is evidencing that the gardening group not only allows an escape from work related life but also from people, as Jackie did with her children and husband.

Whilst participants discussed the group in a positive light they often made comments that suggest they feel guilty for wanting an escape from reality, for example Jackie says 'I feel bad' before proceeding to say how much she enjoys the time away from home life. Similarly, Sam who is a local volunteer for a different charity says,

'it sounds really bad that I like to get away from the shop, cause I'm supposed to love volunteering, and I do it's just that it's not like this, you know, this is like fun time, like away from boring normal stuff'.

These comments suggest that needing an escape or break from reality is a negative thing that should be frowned upon. Comments such as 'I shouldn't say this but...' and 'I feel bad but...' seemed to come up frequently when discussing the concept of Escape. The moral component evidenced here suggests that only 'serious' activities such as work, and family care are justified ways to use one's time.

Participants also seemed to discuss their work lives and responsibilities as everyday hassles, Dan for example said,

'work's just one of those mundane things you have to go through isn't it? This though, it's like something you choose, doesn't have to be done and so I enjoy it more I think cause I'm not at work'.

Participants who have jobs all mentioned in some way how volunteering with the group is a break from reality, Jack for example spoke about how he 'only works part time' and still views the group as 'somewhere to come for a bit of excitement' and 'to try something different to normal stuff'. This reference to the group being more exciting than work is also a common factor throughout the interviews. However those who are retired also refer to enjoying the time away from reality, Bill for example says,

'I couldn't just sit at home all day, I know I'm retired but I'm not ready for slippers and a pipe yet, I need my outside time still, I like to get out the house now and then'.

Here, Bill refers to wanting to escape from retirement almost, whilst joking he clearly makes comments that highlight a need to get away from the house and the gardening group provides this escape opportunity.

The common term 'getting away' evidently has connotations of escapism, which was discussed briefly in chapter one. In the discussion chapter, the concept of 'Escape' will be explored with reference to nature and the outdoors in more detail.

4.3: Identity within a Community

Originally, 'identity' and 'Community' were two separate themes found within my research, however with reflection and after a closer look at the preliminary coding it made more sense to merge the two together. The reason for this is that the majority of the codes are inter related and can be used to support both the themes of 'identity' and 'community'. For example; 'being like a family', 'belonging to part of something' and 'identifying with friends', can all be placed in both categories. E.g. 'belonging to part of something' can be interpreted as having an 'Identity' to belong to, but also to belong within a 'Community'. Participants referred to the themes of 'Identity' and 'Community' throughout the interviews, this is evidenced below.

Jim for example, (who is currently unemployed), discusses how he enjoys volunteering with the growing group as it gives him some purpose,

'yeah I guess it's like a little family really, they help to give me something meaningful to do... ya know, something worth doing, it's better than sitting at home getting depressed cause I can't get a job'.

Jim has recently finished his college course and is looking for employment, he also has a keen interest in the outdoors and likes to be active. He talks about the gardening group in a very positive light,

'it's good to get out here and get on with something, I guess its nice to come down and make friends and just have time to socialise'.

This concept of socialising was also a key theme within all interviews and can be placed within the 'Identity within a Community' cluster. Socialising whilst with the gardening group was discussed both in terms of enabling an identity, as Jackie says,

'it gives me somewhere to belong to yeah, I belong in this group with these lovely people who I've made friends with'.

But also socialising within the community was a main feature for example, Jim says, 'it's chilled yeah, you can just come and have a natter and yeah it's a proper little family down here, it's great'. 'Socialising' can therefore be associated with both main themes, 'Identity' in that the relationships people have often help form their identity, 'Community' in the sense that friends often make up an individual's community.

The sense of 'Belonging' was evidenced by all participants for example, Pete who is also retired talks about the group being like his 'second home' and that he would 'be lost without his weekly gardening fix'. He speaks about the sense of community being like the 'good old days' and claims 'the community spirit is so nice here'. Whilst reminiscing he says 'I've not had anywhere to come that feels like this since I was young and me and my mates would go out and make our own fun', 'it's nice to feel like you belong somewhere with people'. The sense of identity within a community is clear within Pete's interview. Being part of a group was discussed in a positive light by all participants, for example Jack spoke about how it's 'nice to be part of something that isn't work' and 'something that I choose to be involved with'. Andy discussed how people generally enquire about the group when they are seeking aspects involving 'Identity' and 'Community', 'I think people generally come here because they feel they need social interaction or at least want to make new friends and have new opportunities within a group'.

Andy goes on to mention how there is a sense of 'togetherness' within the group, where everyone 'gives each other a hand' and works as one,

'Most of the time there is a common interest, like competitions to get ready for or I dunno getting displays sorted out in time and that'.

Here he highlights the togetherness and community within the group, along with describing the relationships people form here,

'yeah new people join regularly and its like they've always been here, people just come here to get on and intend to make new friends I think'.

Sam builds on this and says,

'everyone works as one when it comes to getting the displays and that ready on time, we've all become good friends, from helping each other out I mean'.

The themes of 'Belonging', 'Togetherness' and 'Socialisation' form the 'Identity within a Community' cluster, as they can all be placed within both the 'Identity' and 'Community' theme, as evidenced above.

4.4: Becoming one with Nature

The aim of this research was to understand the experience of becoming connected to nature, and the theme 'Becoming Connected to Nature' explores the accounts of each participant in terms of their natural experiences. Participants often discussed 'Enjoying nature', the 'Sights and Sounds' associated with their experience and the 'Growth' that they enabled to take place. These themes are accumulated from very descriptive and experiential accounts of the participants becoming one with their surroundings, and this is possibly the richest part of the data collected, regarding experience.

The common theme of 'Enjoying Nature' was discussed in all the interviews, for example E11 talks about how she loves to take in all the surroundings,

'I know we're obviously still in an urban area, but this little green space feels so different, like proper outdoorsy, you can get into your own little bubble out here'.

She goes on to say,

'when you're close to the grass and mud and plants and messiness it just makes you feel good, you can breathe in the fresh air and you just feel healthy'.

Bill also mentions that the,

'fresh air is so good for you, being outside, there's nothing else like it, definitely beats being cooped up at home'.

Jackie discusses how her surroundings often change her mood,

'when I'm here I'm nowhere near as grumpy... you can take in the green surroundings, like I know we're still in Huddersfield but it's nice to be amongst greenery and pretty plants, and life'.

Pete talks about how he loves to,

'just get stuck in and get dirty... it takes you to a different zone almost, like when I'm gardening I'm much happier, just in my own little world'.

All participants discuss being happier whilst in the garden, Bill says,

'There's just no worries, it's like you can just have some peace for an hour or so, go to your happy place ya' know'.

Happiness whilst taking in the surroundings are recurrent themes throughout the interviews.

Participants provided rich descriptions when talking about their experiences being involved with the gardening group, for example some spoke about the 'sights and smells' they encounter in the garden. Sam explains, 'I think it's just the way a garden looks that make it so appealing, like the colours and textures that are in a plant pot, it's magical really'. 'The smell of the soil and flowers and bits and bobs that we get to pot and see grow and that, I dunno a garden is just a beautiful place, isn't it?'. Similarly, Jim seemed to appreciate the surroundings in the outdoors, 'it's like even driving down here, you know you have to come off Leeds road and you come to the turning there and then its just full of trees as soon as you get round that corner', 'it's like you've turned up at a different place miles away, it's crazy that this is just around the corner, and people don't want to be a part of it?'. He goes on to describe the field in which the group meets in fine detail, 'like the green from us to the shed and everything in between is so different to 2 minutes down the road, and like obviously its autumn now so it's all orange but in spring and summer it'll be bursting with colour again, hopefully.' The physical aesthetics at the field are spoken about with enthusiasm, the participants are clearly very in tune with the seasons and the sights and smells that they are surrounded with and that create their gardening experiences.

The topic of 'growth' was also a main aspect discussed with enthusiasm by all participants, with regards to becoming more connected to nature. Ell discussed how her favourite part

about being involved with the group is that she can watch things grow, 'the best part about being here is being able to watch the plants and various veg and that grow, and just thinking yeah I did that'. 'Being able to nurture living things is so rewarding, I love it, it's like now these snowdrop bulbs have been planted but by spring they'll be ready to be used in a display that we do for the area and it'll just be fab knowing that we've nurtured it and helped it survive through winter, you probably think I'm mad'. Participants all mentioned in some form how they like to watch the growth of their produce, Dan said, 'It's so much different to being at work, like metal and man-made stuff has nothing on these natural trees and plants and that, its therapeutic'.

Participants all mentioned how they have become closer to nature as a result of volunteering with the group, Jackie said, 'I never spent time in my garden before this, now my husband can't get me out of there, it's like my second home now.' Andy talks about how it's one of the best groups to have been overseen by S2R in his opinion, 'It's definitely the most successful, in terms of popularity and retention of volunteers.' 'Everyone who gets involved loves the community feel and the thought of nurturing living things I think, I think the key is that its something different to what they're used to and that they look forward to coming and getting stuck into'. He also talks a bit about his own experience of getting involved with nature, 'yeah I love getting muddy, even when it's raining like today it's still fun, I guess, yeah the surroundings definitely help the atmosphere around her like the trees and leaves and that it's just great isn't it, being outdoors?'. The connection to nature shown here, is evidence that all participants enjoy nature, taking in their surroundings and watching living things grow.

4.5: Feeling Good whilst in Nature

Whilst the themes 'Becoming One with Nature' and 'Feeling Good whilst in Nature' are discussed as two separate themes, there are numerous similarities between the two, including the fact that they both directly address Nature. Also, the positive feelings associated with the gardening group are evidenced within both themes. The sub themes

'Enjoying Nature' and 'Happiness' in the 'Becoming One with Nature' theme are mirrored through the sub theme 'Positive Association' in 'Feeling Good in Nature'. However these themes also have distinct differences, hence why the decision was made to list them separately. 'Becoming One with Nature' focuses on the experiential qualities of the outdoors, and the physical experiences that participants have. This theme is very much concerned with the experience of being 'IN' Nature. 'Feeling Good whilst in Nature' on the other hand focuses more on the outcomes of spending time in the outdoors. It encompasses sub themes including, 'Proud' and 'Achieve something good for the environment', therefore distinguishing from the more experiential theme. 'Feeling Good whilst in Nature' will now be discussed as an overarching theme.

All participants discussed the gardening group in a very positive light, often making positive associations about feeling good whilst being in Nature. Jackie for example talks about how she is 'very grateful' for the time she gets to spend outside.

'You know, not everyone has the time to come and appreciate the outdoors, its revitalising, it just makes you feel better.'

She later builds on this explanation and says,

'there's definitely a feel-good factor involved, yeah, when I'm here and concentrating on the garden and the displays and that, it's like all my problems go away, yeah it's very uplifting.'

This association between Nature and positive feelings was mirrored in all the interviews undertaken. Pete for example discussed how he sometimes feels 'down in the dumps' at home but when he's at one of the sessions he feels 'more alive', 'like there's just something about being outside, with the fresh air and plants, it's just good for you.' This comparison to homelife was referred to throughout Pete's interviews,

'I don't have enough outside space at home, I'd love to have a little veg plot of my own or something, so I can grow my own stuff and be outside more but coming here is my only real time outside I'd say, that's why I value it so much I guess?'

Ell describes being outside with the group as,

'like I'm a different person, like more relaxed and happy, content... yeah, when I'm here I definitely have no worries, I'm such a positive person when I'm here.'

The positive associations were referred to throughout, and a rejuvenating quality was often discussed.

Participants also discussed how they believed that attending the sessions and working together is a 'Worthwhile venture'. Jim spoke about how he feels like he doesn't have 'anything valuable to do at the minute',

'with not having a job I'm literally just job hunting at home and yeah it gets lonely, that's why coming here is such a good thing for me, it makes me feel like I'm doing something good, and it's worth doing.'

He goes on to discuss his homelife in comparison,

'you know, like my mum just thinks I'm still her kid and like I've graduated for God sake, I need to start doing something I wanna do, yeah coming here makes me feel like I'm doing something to help the environment and that, I'm proud that I volunteer here.'

This concept of being proud of attending the sessions and giving something back is also a predominant feature throughout the interviews. Jackie talks about how she believes that they are, 'doing a good thing for the environment and the community.' Sam says,

'if I didn't volunteer here, I wouldn't be helping the environment out, it's nice to be able to say that I'm a part of a group that does something good.'

Andy highlights that the concept of doing something worthwhile and something to be proud of is 'one of the main draws to joining' and that

'people come here with the intention of making their surroundings a better place, you know it's like a little goal they set themselves, like right I'm gonna get this section done today or I'm gonna plant this or that, yeah there's definitely a feeling of pride within the group.'

He continues to discuss his personal satisfaction through being involved with the group,

'It's nice to see people enjoying themselves and to see everyone being happy and sharing experiences in nature... for me personally, I feel happier when I'm out here rather than stuck inside back at base, and yeah I am proud to say that I help out

within the community, yeah it's something to be proud of for sure, cause we're achieving goals all the time.'

The theme of being 'Proud' whilst being involved in a 'Worthwhile venture' was discussed similarly by all participants, there was a definite sense that they were all advocates of getting involved in Nature and feeling good about doing so.

4.6: Psychological Relaxation

Originally, 'Psychological benefits' and 'Relaxation' were listed as two separate themes however with closer review it seemed more sensible to merge the two together as 'Psychological Relaxation'. Many of the preliminary codes were relevant to both themes for example, 'Relaxation' when discussed by participants can be interpreted as a psychological reference. For example, Jackie discusses feelings of relaxation,

'it's definitely good for the mind, that relaxation time is vital I think to keeping me sane.'

This quote highlights the psychological element involved with the relaxation theme discussed. Both themes seemed to interlink rather than stand as separate features, with common preliminary codes including; Me-time, peace and meditational qualities. The theme 'Psychological Relaxation' was outlined nicely by Eil who described spending time in the outdoors, 'like meditating almost', she said,

'it's like I zone out almost, into my own little world... it's time to reflect I think, when no one disturbs me I can properly get into it.'

The theme of 'Meditational qualities' was touched upon by a few of the participants and seemed like a nice description of their experiences. For example, Jackie discusses her time with the group as,

'something that my brain needs, I need to have time to unwind a bit, away from family and that, you know, this is my thing I like to do to relax, everyone needs something like this, to disconnect from the rest of the world for a while.'

Whilst none of the participants were referred to the programme for any psychological health issues such as Depression or Anxiety, psychological and lifestyle difficulties were still

discussed within the majority of the interviews carried out. Particularly among the retired volunteers, there was a sense of loneliness and feelings of being low at home. Pete for example discussed his feelings openly a few times throughout his interview,

'Yeah I'm not depressed or anything but like, I think everyone is allowed to feel down now and then about things, like when I'm at home I do get a bit down, you know when no one's around and that, this place helps a lot with that though.'

His constant repetition of 'I'm not depressed or anything' came across as though he didn't want me as a researcher to think he needed someone to talk to, almost like he was showing a tough exterior to reassure me that he is coping.

'Obviously I'm not depressed like, I know I'm not but I'm just saying that coming here I think gets me out of that mindset, maybe everyone needs something like this?'

Similar feelings were discussed by Bill,

'my wife and kids are obviously always there, and I know that, but I think I'm just not made for retirement, I like doing, and being out and that, that's why this appealed to me I think cause I can unwind here.'

He often made jokes about getting older, 'yeah I'll be here in my rocking chair one day', however, in my opinion he was being quite direct in his appreciation for his time in the outdoors,

'I love getting out with the guys, all jokes aside I really think being outside is good for your health, you know your mind I mean.'

Jackie also refers to the psychological benefits of being involved within the group, 'I'm sure being out here does more good than being in the busy town centre' and refers to it as keeping her 'sane' a couple of times.

Whilst the theme of 'Worries' was discussed by the retired participants, others still mentioned varying ways in which they feel the group sessions have helped them. Jim for example brought up some Stress related issues that he experienced whilst trying to find work,

*'It's just very stressful at times, like I've come from College and just thought oh **** what am I going to do now, and it's... daunting to say the least, I can understand why people struggle with mental health.'*

The sessions also seem to help him 'destress',

'Yeah it's definitely a chill time for me, it's a good place to think about things, dunno why but being in nature puts like into perspective.'

Similarly, Ell discussed how getting away from her hospice work is beneficial for her psychologically,

'well it can be a very stressful job obviously, I think that's why I joined these sessions, I love gardening and being outside and it's a great way to relax and just be undisturbed for a while.'

Those in work also mentioned the benefits they had experienced whilst being involved with the group. Rob for example commented on feelings of being overwhelmed,

'Obviously I get in from a hard day's work, cause I work 12 hours a day, and then I have the house to sort, the kids to look after and various bits and bobs that need doing and things can just get a bit too much sometimes, that's when I start overthinking and that.'

He goes on to discuss how the gardening group helps him,

'like when I'm here it gives me time to organise in my head what I need to do and that and I dunno it's just some time to relax I suppose, it's definitely needed.'

The theme of 'Psychological Relaxation' was a reoccurring throughout each interview, 'meditational qualities', 'Relaxation' and 'Worries', were discussed openly by all participants. It seems that being in the outdoors and in Nature has an influence on psychological well-being on all volunteers involved despite the varying circumstances.

4.7: Learning new things

'Learning new things' was discussed by all participants with reference to two main sub-themes; 'Learning transferable skills' and 'Learning the benefits of being outdoors'.

Jackie for example discussed the numerous skills she had picked up since joining the group,

'the things I've learnt are countless, to do with gardening I mean, my husband was so impressed with me after a few weeks, our garden is like a different place now.'

Ell also talks about her garden,

'I love any time I can get in my own garden to use my new skills yeah, I like looking for different colours and that to make it look really pretty in all the different seasons.'

Sam goes into fair detail about the gardening skills she has learnt,

'I know how to pot on and when to plant certain bulbs, I know how to organise the displays professionally, mainly I know how to not kill things anymore.'

Many of the participants discussed how they have transferred their gardening skills to their own gardens, Andy for example spoke about his greenhouse,

'I put a greenhouse in last summer actually, I thought you know what? If I can do it here, I can do it at home as well... I like the planning of it, like what I'm gonna put into it to grow next year and that, I suppose that's almost therapeutic in itself.'

On the other hand, a few participants referred to learning new communication skills through being involved with the group. Jim for example said,

'I've definitely made new friends here, it's nice to be able to come and just get along with everyone, and yeah my communication skills have probably improved loads since college.'

Pete also mentioned that it's gotten him back into communicating with new people,

'well at my age I don't really go to many new places, so communicating with new people isn't usually necessary, but yeah I feel like I've got back into socialising with folk.'

Bill also makes the point of the skills he's learnt whilst volunteering and joked,

'yeah without a doubt I've learnt things yeah, I barely knew a daisy from a daffodil before I joined.'

He also mentioned that he believes meeting new people and communicating is an essential part of life,

'I think if you start distancing yourself from other humans that's when you start to get old you know, if you stay out and try new things it keeps you young, I hope anyway... yeah I've learnt to start conversations with people again and put myself back out there, it's important to do that.'

These transferrable skills are important, and participants evidently value them. All ten participants discussed how their lifestyles have changed for the better because of these new skills. Bill described how his lifestyle has changed,

'before coming here I'd just sit on the sofa and waste my days away, you know you get trapped in routine, don't you? And yeah, I love being outside now, I couldn't sit all day anymore, I need to be out and refreshing my mind each day, you know and put my skills into practice.'

Dan also discussed this,

'normal work isn't good for your mind at all really is it, it's so cyclical, learning new stuff here just breaks up that cycle, I can't stress to people enough how important the outdoors is, and learning new things in your life.'

Ell also said,

'I always go on about it to everyone at work, get outdoors! Learning outside the best medicine around in my opinion.'

Similarly, Jim said,

'I'm so glad that I've learnt about how beneficial nature is at my age, I couldn't imagine going through life indoors and not having learnt any of this stuff, it's like I'm living a completely different life to 5 months ago.'

Andy also discussed how he has seen all the volunteers involved, realise how 'stimulating nature can be' and says that

'learning about nature and the environment and the community is so good for people, it truly can help mentally or psychologically I mean'.

The new skills discussed above were mentioned by all the participants involved with much enthusiasm, it is evident that all the volunteers recommend that time in the outdoors is crucial. Both 'Learning transferable skills' and 'Learning the benefits of the outdoors' were main parts of each participant's conversations. Towards the end of the interview Andy highlighted that,

'there's always new things to be learnt here, and I think people are always open to that, it just so happens that while you're learning here, you're also in the outdoors and having so much fun! That's the appeal of the group'.

4.8: Interlinking Sub-Themes

The six themes discussed above, 'Escape', 'Identity within a Community', 'Becoming One with Nature', 'Feeling Good whilst in Nature', 'Psychological Relaxation' and 'Learning New

Things', are all distinct. However, connections between them are evidenced through the sub-themes identified within the data. As previously discussed, there are similarities between 'Becoming One with Nature' and 'Feeling Good whilst in Nature'. This is also the case for other themes. For example, the sub themes, 'Mediational Qualities' and 'Relaxation' are placed under 'Psychological Relaxation', as they define how participants are able to unwind whilst in nature. These could also be linked to 'Escape', in the sense that getting away from the mundane realities allows for relaxation and time to unwind. In my opinion however, 'Escape' provides an overview of how participants get away from reality whereas, 'Psychological Relaxation' concerns the resulting benefits of getting away and spending time in Nature. Therefore, the sub themes are best placed here.

Again, sub themes from 'Feeling Good whilst in Nature', including 'Improving the Community' and 'Achieve something for the Environment', could be linked back to the theme 'Identity within a Community'. All participants discussed wanting to do something meaningful for the community. 'Identity within a Community' encompasses themes surrounding why being in Nature allows a sense of togetherness and belonging, whereas 'Feeling Good whilst in Nature' involves the positive feelings such as community spirit that are associated with being outdoors. Therefore, there is a need to display these two themes separately.

There are definitely numerous sub themes that could be linked into more than one main theme. However, as a researcher, I believe that the themes have been placed appropriately and therefore present the best possible final template that is representative of all 10 participant accounts.

Chapter 5: Discussion

The following chapter will examine how the current study has addressed the original research aim. The findings will be discussed with reference to the literature and theories introduced in Chapter 1 and 2 including; The Biophilia Hypothesis (Wilson, 1984), Attention Restoration (Kaplan, 1995) and Stress Reduction (Ulrich, 1991). Past research will then be discussed in relation to the current research findings, including concepts of Escapism and Identity. Future implications for practice and research will be outlined with reference to how upcoming nature and well-being interventions can utilise these findings, to help promote and sustain healthy psychological well-being within the community. Suggestions for future research in the area of nature and well-being interventions will be made along with a reflection on the method and methodology utilised, with reference to Template Analysis (King and Brooks, 2017).

The original research aim is as follows;

‘To gain a detailed understanding of what it means to become connected to Nature and the benefits of doing so, according to volunteers from a weekly outdoor gardening group’.

Having collected rich data and followed the 6 steps of Template Analysis (King and Brooks, 2017), the Final Interpretation was reached and is displayed in Table 2. This presents the 6 final themes; ‘Escape’, ‘Identity within a Community’, ‘Becoming one with Nature’, ‘Feeling Good whilst in Nature’, ‘Psychological Relaxation’ and ‘Learning New Things’. These findings will now be discussed in comparison to the theories previously outlined.

5.1: Theoretical comparisons

In relation to the Attention Restoration theory by Kaplan (1995), the findings from the current study are supportive. As outlined in Chapter 2 Kaplan (1995), theorised that individuals should take part in activities that require little voluntary attention. This is because activities facilitating involuntary concentration allow the mind’s attentional capacity to be restored. Kaplan (1995) specified that the surroundings, and associated activities, must meet four

requirements in order to be a restorative experience. These are; the environment should not require direct attention, one must be 'away' physically or mentally from one's usual surroundings, the environment must be rich to maintain attention and the environment must be compatible with the individual.

With reference to the findings from the current study, many participants discuss how they find themselves engaging with nature unintentionally. For example, Jackie discusses how she comes every week and gets on with the gardening without realizing she is doing any work,

'I always come and get on with it... and then I look up and it's all done, whilst I've been admiring the beautiful plants and enjoying myself, I've actually put in some hard work.'

Similarly, Rob makes a comparison between his work life and gardening in the outdoors,

'it's so different, like being somewhere like this takes your mind off what you're doing, I can be sat here for hours and it feels like 10 minutes. Whereas at work the time drags so much!'

These two examples display clearly how the participants view being in nature as easy, comparing it to work life and suggesting the time flies by. Whilst all the participants are engaging with nature their involvement is not effortful and requires low attentional demand, therefore the experience can be absorbed more effectively.

Kaplan's second requirement of being 'away' was also evident within these findings, in the theme 'Escape'. Participants consistently spoke about getting away from their usual surroundings, whether this be their home lives or workplace. For example, Ell discusses how she views her time with the gardening group as an escape,

'I suppose it is a bit of an escape, like time to forget about everything bad going on in the world.'

Participants discussed both physically getting away from specific places, for example Dan said, 'anywhere away from work is a better place for me.', as well as psychologically getting away, as Jackie discusses,

'it's nice to be able to get away sometimes, and just think about things and wander off into your own little world'.

The third requirement is also mirrored in the current findings, in that the environment is rich enough to maintain attention. Participants discussed different aspects involved in their surroundings that they see and experience and that keep their minds engaged. For example, Bill explains,

'there is so much more to see and take in when I'm outside, beats trying to occupy myself in my living room anyway... There's stuff everywhere to see and feel, even the weather is different each day, and the seasons bring different colours and that, you know there's plenty to keep you occupied here'.

The final requirement is also apparent within the participants' accounts. The outdoor space which hosts the gardening group is evidently compatible with each participant as they all volunteer there and continue to do so. They comment on wanting to be involved and enjoying the gardening and horticulture activities for example, Jim says,

'I really get into things here yeah, like I think if you enjoy doing something then it's definitely good for you, and getting involved with the outdoors, who wouldn't enjoy that?'.

All participants commented on some level about nature not needing direct attention, the element of 'getting away', the richness of the environment and being compatible with the surroundings and therefore the findings agree with ART by Kaplan (1995). Being outdoors and in nature has parallels to Kaplan's theory, as involvement within the gardening sessions is not effortful and has low attentional demand. Therefore, it allows the experience to be fully absorbed by individuals. For the ten participants this meant they could be attentive to and become fully absorbed in; relaxation, de-stressing and socialisation.

Whilst the current findings support Kaplan's ART to an extent, there is also some evidence that links to Stress-reduction theory by Ulrich (1991). Ulrich (1991), among others (Hartig, 2003), focused on restoration through general stress reduction and suggested that exposure to particular natural environments are beneficial for psychological well-being and cause stress-reducing psychophysiological responses. All ten participants discuss the theme of

stress-reduction and link this to the natural environment they spend time in. For example, Ell said,

'usually with the hospice and everything going on my stress level are through the roof, but I come here for my weekly chill time, to wind down and think about things, it definitely calms my stressiness.'

It should be noted however that whilst the interviews do suggest this, physiological changes (Ulrich, 1991), cannot be demonstrated within a small-scale qualitative interview study such as this. Nonetheless, there are many other examples of research that promotes the positive outcomes of spending active time outdoors, as discussed in Chapter 2 (Hartig, 2003; Bowler, 2010; Herzele & De Vries, 2012).

On the other hand, The Biophilia Hypothesis by Wilson (1984) outlines that humans have an innate affinity with nature and therefore are drawn to the natural environment. With reference to the gardening group, this would suggest that volunteers are naturally drawn towards spending time outdoors and so less effort is required to adapt to the natural environment, than would be required to a more urban setting. The concept that individuals have some draw to nature is supported within other literature. For example, as discussed in Chapter 2, Heerwagen (2009) suggested that daily contact with nature and the outdoors is crucial. She concluded that becoming closer to nature can be achieved through a variety of sources including; plant pots, trees in the street, roof-top gardens and veg plots amongst others, and should be made available for everybody to benefit from (Heerwagen, 2009). This is apparent within the current research through the use of the gardening group which involved plants, displays, pots, veg plots, trees and more. As Heerwagen (2009) suggests, this contact with nature is viewed as crucial and all volunteers mentioned how important they viewed their time with the group, in nature.

In terms of the Biophilia Hypothesis (Wilson, 1984) the current study can also support this theory. For example, participants discussed feelings of happiness whilst being in the field with the group, Rob said, 'I feel a lot more happy here out in the open air than I do at work.'

Participants mentioned feelings of being 'closer to nature' and being 'happy in this area'.

Admittedly some of the participants had to acclimatise to their surroundings at first for example, Ell said,

'I'm 100% not an outdoors girl normally, I'm so busy with my job and that I just thought I'd give it a go, but yeah at home and that I rarely get out, it's a bit bad really.'

She goes on to say,

'I definitely wasn't designed to use all the equipment, I'm useless with some of it, I don't even know what half of the things are called, but I give it a go cause I know it's good for me to be out here.'

With the majority of the population now raised and living in urban environments, it can be expected that many people, such as Ell, don't necessarily have knowledge of how to nurture plants and wildlife. For some of the participants there was a sense that they needed to be outdoors and were naturally drawn to the group, however for others such as Ell, the decision to join was a little more out of character. Nevertheless, an attraction to the outdoors is still evident within the participants' accounts and therefore the findings from the current study are broadly in line with the Biophilia Hypothesis by Wilson, (1984).

In addition to these areas of convergence with the above-mentioned theories, though, my findings also show that gardening as part of a group with whom volunteers felt affinity was very important. This social aspect of connection with nature is not really addressed directly by ART, Stress Reduction and Biophilia theories, which are very individualistic in their focus. Arguably there is some capacity for ART to recognize it if we view the social setting as part of what made the experience compatible for my participants, but even here the social perspective is rather peripheral to the main theory. Through adopting a qualitative/ limited realist approach the complexities involved in becoming connected to nature can be highlighted and in this sense the findings within this research are distinct from past theories. I discuss this further below in relation to identity (5.2.2).

5.2: Can 'Gardening' improve psychological well-being?

The findings from the current study suggest that time spent outdoors and in nature, whilst partaking in horticulture activities has positive implications for psychological well-being. Much support for this can be seen in literature through the numerous past and existing nature and well-being interventions for example, Green Care (Haubenhofer et al, 2010; Care Farming UK, 2018), Therapeutic Horticulture (Sempik et al, 2014), Wilderness-based therapy (Clark et al, 2004) and Animal-Assisted Activity (Majic et al, 2013). As well as being in line with previous literature, the current findings allowed me to explore what the benefits mean to particular people. Volunteers express the importance of the six themes outlined and build a holistic picture of the experience of becoming connected to nature through partaking in nature-based activities. Some of the main themes discussed within the current findings are closely mirrored in work by King (2012). He also found Social interaction, Purpose, Achievement, Community, Contrast of work life and Escapism to be key themes involved with allotment gardening. This research provides further validation that the themes identified in the current study are important to the experience of connecting to nature from the perspective of those involved with gardening interventions.

Support to Recovery (S2R) run a range of other nature-based activities, designed to improve the psychological well-being of individuals involved, including; walking groups, beekeeping and allotment sessions. The weekly gardening sessions overseen by S2R add to the ever-increasing number of successful well-being interventions presented in past literature (King, 2012; Clatworthy, 2013). The current study has contributed to this literature and presents some valuable insights into the phenomenon of gardening and spending time in the outdoors. The participants involved within this study discuss their own well-being in detail and all highlight the positive implications that joining the group has had for them psychologically, emotionally and relationally as evidenced in the identified themes. Although it should be noted that the participants were all self-selected and actively enrolled

themselves onto the sessions, therefore any wider links to therapeutic mechanisms should be made with caution. The 6 main themes will now be discussed with reference to the current research below.

5.2.1: Escapism

The theme of 'Escape' or getting away was referred to by all participants and was a main discussion point within all interviews. With the emergence of this main theme within my data it seems appropriate to discuss it in more detail. The question of why gardening provides an escape is currently unanswered. Jackie discussed escape directly,

'I feel free when I come here, I've escaped from my everyday worries when I'm here, I can concentrate on me.'

Others discuss the theme more discretely for example, Bill said,

'I look forward to getting away, out the house I mean, yeah I look forward to coming all week.'

Whether the participants are referring to escaping their home lives, their work lives, families or friends the theme is clearly evident in their dialog. Naturally, the other question here is 'how can escapism be defined?', and what does each person view their escape as. The participants in this study all seem to have varying ideas of what escapism means to them. Eil for example discusses how she likes to get away from her work at a local hospice and describes the growing group as 'a well-needed quiet-time'. Andy describes the gardening group as, 'a good place chill out and organise your mind'. Highlighting that his escape may be to somewhere he can relax.

As noted earlier, ART (Kaplan, 1995) requires that one has to be 'away'; either physically or mentally, from their usual surroundings in order to concentrate on the environment. This is supported here by the theme of 'Escape'. All ten participants have a slightly different description of what 'Escapism' is to them. With so many varying ideas of 'Escapism' available, it seems necessary to discuss the theme further, to allow a better understanding of what it means to the participants involved.

The term 'Escapism' is defined below by the Oxford English Dictionary;

'Escapism is the tendency to seek distraction and relief from unpleasant realities, especially by seeking entertainment or engaging in fantasy' (Oxford Dictionaries.com, accessed 06/01/19).

This particular definition of 'Escapism' is relatable to the participants involved in the current research study. All participants mention 'getting away' from an unpleasant reality, such as their 'mundane' jobs or 'annoying' home lives, by seeking entertainment in the form of nature and the outdoors. However, this definition of 'Escapism' may not be all encompassing of the kind of escapism that gardening specifically provides. The Oxford English Dictionary doesn't distinguish between the type of 'escapism' experienced by an online gamer for example (Cheng et al, 2018), and that of a gardener. There are clearly many differences between an online gamer and someone who enjoys spending time outdoors. For example, those involved in the current research often discuss getting away with regards to stress-reducing and peaceful aspects whilst an online gamer is more likely to be seeking an escape in the form of a thrill or excitement. Therefore, can these two very different concepts really be defined by the same single definition of 'Escapism'?

'Escapism' in the current study stems from a sense of 'getting away' from somewhere or something (bad). For Jim, the gardening group offers him an escape from the stresses of job searching and post college struggles,

'it definitely gives me the time I need to get some peace and quiet and just take in my surroundings.'

For Sam volunteering with the group is about,

'fun time, like away from boring normal stuff, I need something to get me away from all of that.'

For all of the participants, the gardening group seems to be an escape but for different reasons, often something they viewed as negative or stressful. With this in mind I believe a more fitting definition of 'Escapism' for the current research findings would be;

A need to get away from the mundane/negative realities of life psychically, psychologically, relationally, or a combination, to a more relaxing, peaceful and enjoyable natural environment.

This definition of 'Escapism' incorporates the most important features discussed by the participants, and so therefore is a more representative description of one of the main themes identified from the current research, to 'Escape'.

5.2.2: Identity

Another key finding was the theme 'Identity within a Community'. This is a much more distinct theme from other theories previously discussed in Chapter 2. Many of these previously discussed theories revolve around connecting with the outdoors and natural environments, whereas 'Identity within a Community' is more about a valued social context with human relations. Participants all discussed feelings of community or belonging on some level for example, Jim often refers to the group 'like a little family really' and discusses how, 'it's nice to come down and make friends and just have time to socialise'. Socialising whilst with the gardening group was also discussed in relation to enabling an identity, as Jackie says,

'it gives me somewhere to belong to yeah, I belong in this group with these lovely people who I've made friends with'.

Past research has suggested that the social context highlighted here is a key mechanism within nature-based interventions and is partly responsible for the positive implications associated with well-being (Pryor et al, 2006). Pryor et al (2006) suggested that 'social' contact with nature should be researched further, as this seems to be a key mechanism involved with improving psychological well-being. The current findings support this notion. All participants highlighted that a significant part of their enjoyment of the outdoors was due to the time spent with others, making friends and feeling like part of a community.

Olivos and Clayton (2016) suggest that the environment is a key factor in developing a sense of identity and community, and likewise, socialising is a possible key feature involved in nature-based interventions that should be researched further. The current research has identified the importance of a 'social context' and suggests that Identity and Community are key features involved in becoming connected to nature through nature-based interventions and experiencing improved well-being.

The social context evidenced here seems to be a very important therapeutic mechanism that has also occurred within similar nature-based interventions including; horticultural therapy (Kamioka et al, 2014), animal-assisted therapy (Nimer & Lundahl, 2007) and gardening (Clatworthy, 2013). This socialisation concept links the theme 'Identity within a Community' to various other nature-based interventions and is a common occurrence when connecting with nature. The relational theme is conceptually distinct and appears to happen almost by accident within nature-based interventions. With reference to the current research, participants discuss friendships made and the feelings of community that come naturally for example Bill said, 'I would never have met these guys in my normal life, but they are like my family, it's weird.' Evidently through volunteering in the outdoors and becoming closer to nature, friendships are formed along with the sense of community. 'Identity within a Community' is a common theme touched upon throughout nature-based intervention research. For example, the theme 'Sense of Community' was also a key finding in the allotment research by King (2012). This provides validation that individuals involved with gardening and horticulture programmes often discuss feelings of community and topics of socialisation.

There is definitely a notion that this theme of 'Identity with a Community' has been overlooked within past research and should be investigated further in association with nature-based interventions and psychological well-being (Pryor et al, 2006; Olivos & Clayton, 2016).

5.2.3: Links to past interventions.

As discussed, the theme 'Identify within a Community' has ties to other nature-based interventions currently helping to improve psychological well-being. Similarly, the themes 'Feeling good whilst in nature' and 'Learning something new' identified within this research are relevant to other interventions in the area.

'Feeling Good whilst in Nature' as a therapeutic mechanism could be activated by various other types of intervention where there's a sense of 'giving something back' and it being a 'Worthwhile Venture'. All participants within the current study discussed feelings of being 'proud' to be volunteering with the group and 'doing something good for the community and the environment'. This notion of 'giving something back' has also been discussed in past research. Elsey et al (2018) for example looked at care farming and the health and well-being of offenders on probation. She found that 'giving back' to the community was one of a few factors leading to decreased numbers of re-offenders and increased well-being. Husk et al (2016) highlighted similar findings involved with conservation activities. Through taking part in conservation activities, the local community was improved, and volunteers reported feelings of increased well-being and self-esteem. Evidently the theme of 'Feeling good whilst in Nature' found in the current research can be linked to themes of 'giving back to the community' which is evident within many other interventions (Elsey et al, 2018; Husk et al, 2016, Wang & Glicksman 2013).

Interestingly, 'Learning New Things' is another theme that taps into with a wide range of different types of intervention modality, for example therapeutic arts & music (Perruzza & Kinsella, 2010), Gardening interventions (Wang & Glicksman, 2013), Horticultural therapy (Kamioka et al, 2014), animal-assisted therapy (Nimer & Lundahl, 2007), Conservation activities, (Husk et al, 2016) and Care Farming (De Boer et al, 2017) among many others. Wang and Glicksman (2013) for instance, found that 'learning something new' is one of the main themes discussed by older adults in relation to gardening interventions. Learning new skills is another one of the main themes discussed within literature that links to positive well-

being. With reference to the current research, participants highlighted 'Learning new things' as a major feature within their experience of becoming connected to nature. For example, Sam discussed her newly learnt transferable skills in detail,

'I know how to pot on and when to plant certain bulbs, I know how to organise the displays professionally, mainly I know how to not kill things anymore.'

Then she continues to say, 'it's so good to learn all this stuff it makes me feel so good.'

Evidently the 'Learning new things' theme has links to beneficial implications for well-being in this research, however 'Learning' is also established within past research and has clear comparisons to other interventions within the area.

The main themes identified within the current research and that have been discussed above; Escape, Identity, Feeling Good whilst in Nature and Learning new things, all seem to have parallels to those found in many other well-being interventions in the area. Perhaps knowledge of this can be utilised to inform future research and interventions. This will be discussed further in the next section.

5.3: Practice Implications

Now that the findings have been reviewed and the links with relevant theories and literature have been made, the impact of the current findings and the contributions they make to knowledge and practice can be outlined.

Firstly, the gardening intervention overseen by 'S2R' has strong connotations of 'Escape'. A new definition of 'Escape' with regards to nature interventions has been provided. The concept of getting away from mundane and negative realities is relatable to the majority of people. Whether this be their jobs, homelives, University/ College or psychological health issues such as Stress or Anxiety, the concept of an escape seems to be desirable. This knowledge combined with allowing the opportunity for relaxation and to enjoy a natural environment could be utilised to get more people involved with the outdoors, and therefore improve the well-being of the wider population. If future nature and well-being interventions

promote ideas of Escapism, it is likely that a higher number of the population will be interested in getting involved in the outdoors, for the reasons outlined in Chapter 4. If the theme of 'Escapism' becomes more widely recognised in terms of getting outdoors and spending time in nature, individuals will have the knowledge required to improve their own psychological well-being.

Similarly, themes of Identity, Community and Socialisation all appear to be key features involved in becoming connected to nature. The current research has identified the importance of a 'social context' and suggests that Identity and Community are key features involved in becoming connecting to nature and experiencing improved well-being. The sense of community spirit and relational qualities could be utilised to encourage more people to get involved with nature-based interventions, similar to those overseen by S2R. Knowledge that nature-based interventions are available to all people, not just those with psychological health problems or certain groups of people (elderly or vulnerable), would again encourage a much wider population to becoming involved.

Furthermore, themes of 'Feeling Good' and 'Learning new things' are evident throughout a range of past interventions and therefore are also potential selling points to any future nature-based intervention created.

5.3.1: S2R Future Interventions

Support to Recovery (S2R) currently provide a wide range of activities and interventions for individuals within the Kirklees area. The current findings can be utilised by S2R representatives in order to build on the current list of interventions to improve and create new outdoor interventions or activities. The findings from this study confirm that the weekly gardening group is a success in terms of participant satisfaction and improved psychological well-being. Findings from the current study could inform S2R on how best to recruit more volunteers in the future to get involved with the charity. For example, with evidence suggesting that their nature-based programmes provide an Escape, a sense of Identity and

offer to teach new and transferrable skills, it is likely that more people may become interested in the programmes they oversee. This research also provides S2R with the validation they require to know they are doing a good job within the community and helping to improve the well-being of the volunteers involved. In the future S2R can promote their nature-based programmes with confidence that they are beneficial to the community.

5.4: Future Research

Due to the nature of this piece of research (being a MSc thesis and having limited time to conduct research), I feel it would be beneficial to conduct a further, larger study on the concept of 'Escapism'. This may highlight alternative or unexpected findings that this study failed to illuminate, for example further themes or opposing interpretations. Furthermore, additional evidence is needed to support the proposed definition of Escapism, outlined earlier on in the chapter. Further research could focus on the 'bad' or 'negative' aspects that individuals wish to 'get away' from and why nature interventions are able to provide this escape. Escapism is an important theme to explore further due to its implications for well-being including; how it can help to reduce stress, provide a break for individuals who need one and allow time for relaxation and enjoyment.

With the dominance of cognitive based theories such as ART (Kaplan, 1995), in the field of nature and well-being, important themes such as 'Identity with a Community' have been overlooked in the past. Due to this, more research could also be carried out to establish these finding within literature. As Olivos and Clayton (2016) suggested, the environment is a key factor in developing a sense of identity and community, and likewise, socialising is a key feature involved in nature-based interventions, therefore they should be researched further. (Pryor et al, 2006; Olivos & Clayton, 2016). Future research could also focus on the impacts that 'social' nature contact has on well-being when used in nature-based interventions within certain communities. Whether this is a significant component in improving psychological well-being could be established (Pryor et al, 2006). Any future research surrounding nature-

based interventions should keep these main themes in mind. Volunteers discussed; Escape, Identify, Feeling Good and Learning repeatedly throughout the interviews and these themes are widespread throughout literature.

5.5: Wider implications for Policy

With regard to previous government policies and third sector organisations as discussed in Chapter 1, this research informs any future plans or promotions. The findings from the current study highlight the key features involved with becoming connected to nature, and so when deliberating on new and upcoming policies or schemes these features should be noted. The key features involved here highlight the positive impact that the outdoors can have on well-being; psychologically, emotionally and relationally. With theories such as ART (Kaplan, 1995) and Stress reduction (Ulrich, 1991), still dominant, more holistic findings such as these are sometimes overlooked. This is beginning to change however, with research looking at more holistic methods and findings including identity and community (Olivos and Clayton, 2016) and giving something back (Husk et al, 2016). The current research highlights a need to utilise more holistic approaches. Nature-based interventions such as gardening in this case, have been proven to be beneficial for all aspects of individuals lives, rather than simply focusing on the psychical improvements and effects on psychological health symptoms.

In relation to health practitioners who aim to promote positive psychological well-being to service users, it is suggested that inclusion of nature-based interventions is vital when aiming to improve feelings of positive psychological well-being. According to online articles (Nutt, 2018, October 5; Horton & Leonard, 2018, August 7), NHS Shetland, which is one of the fourteen regions of NHS in Scotland, have begun prescribing 'Nature' on the NHS. GP's and nurses can now explain and promote the many benefits which being outdoors can have on physical and psychological well-being. Surgeries in this region now prescribe walking and gardening among other activities, in order to 'boost' public well-being (Nutt, 2018 October 5). The findings from this research can be used to inform these prescriptions to enable the best

possible outcomes for psychological well-being. As a general public health initiative, nature-based interventions could potentially help improve the well-being of many populations. For example, gardening has been proven to be a useful tool for stress reduction (Clatworthy, 2013). The natural environment possesses elements of relaxation and tranquillity therefore, gardening can assist with a range of psychological, emotional and relational issues, as evidenced in the current findings.

5.6: Reflection

With regard to the rich data collected and the depth of findings achieved, as well as the substantial contributions to knowledge and future research, the method and methodology utilised was a suitable choice for the research conducted. Prior to recruiting participants, I spent 2 weeks participating in the gardening groups activities and weekly meetings. This allowed individuals to get to know me before any interviews took place, which therefore meant they were more willing/ comfortable to partake in my research. The semi structured interviews allowed each participant to give a personal and detailed account of their experience of connecting to nature. Individual interviews allowed participants to feel as comfortable as possible, this was vital in allowing me to gain the most detail about their experiences as I could. When discussing a personal experience, participants may be more likely to hold information back, in fear of being judged (Brinkmann, 2014). Therefore, interviews were a more fitting method than focus groups for example, for this reason. Questionnaires could also have been utilised, however the qualitative approach would have been lost, with the questions being difficult to word correctly to get the best information. The data from a questionnaire wouldn't have produced as rich data as was collected through the interviews. Arguably, interviews can prove to be time consuming and complex. Much preparation was required prior to meeting; the times and places of the meetings had to be agreed with each participant, the interview questions needed to be pre-determined with appropriate probes and prompts noted down. Once the interviews had been carried out, the transcription process then began, which was also very time consuming. However, interviews

were still the most appropriate method that allowed the level of depth required to answer the research question and were the most fitting option for this study.

In terms of the Template Analysis utilised (King & Brooks, 2017), this was again the most suitable option for the current research. Template Analysis is a flexible approach and is not tied to any one philosophical position or methodological approach. This generic approach was selected over more methodology-specific styles such as, Grounded Theory (Corbin & Strauss, 2015), Interpretive phenomenological analysis (Smith et al, 2009) or Descriptive phenomenology (Colaizzi, 1978), for this reason. However, having collected data and assessed the main features involved with the gardening phenomenon, a limited realist position was selected, as I wished to draw conclusions about the real world in which the gardening group operates, but not step outside my subjective position and influence any conclusions. I also made use of *a priori* themes that were informed by past theories, as well as utilising quality checks to highlight the value of my research.

For the most part, Template Analysis was similar to conducting other styles of thematic analysis in terms of the first steps followed; familiarisation with data, preliminary coding and clustering. However, whilst other forms of Thematic Analysis adopt a fixed sequence to building up a coding structure in the analysis process (Smith et al, 2009; Corbin & Strauss, 2015), Template Analysis offered a much more flexible sequence to creating a template. It did not require that I complete the more 'interpretive' forms of coding after the 'descriptive' stages, allowing much more flexibility in the analysis process. A greater depth of coding was allowed and therefore the data collected was rich and highly relevant to my research question and aim.

The seventh step suggested within Template Analysis (King & Brooks, 2017), is involved with highlighting the value of the research undertaken. The quality checks utilised in the current research included; keeping an audit trail and using detailed participant accounts. The audit trail provides a record of how my analysis was developed, presenting the key analytical

decisions that were made throughout the analysis process. Evidence of this trail can be seen in Appendix C. Through keeping each stage of my analysis process to hand, it was easy to add comments regarding why specific changes were made (changing/ merging/ deleting themes) and continually review the early templates. For example, the original themes 'Identity' and 'Community' were merged as many of the preliminary themes were included within both, this created an overarching theme of 'Identity within a Community'. Keeping an audit trail also allowed reflexive comments to be noted, regarding how my position as a researcher may have shaped coding choices or template development. For example, with past literature in mind I already had an idea of what I was looking for in my data, specifically from the *a priori* themes identified. However, through noting down comments and taking extra care not to miss themes out or involve themes that cannot be evidenced, any biases such as these were avoided. Furthermore, by including participant quotes throughout the findings chapter, sufficient detail surrounding the context of gardening was included. This provides clear examples of where themes, clusters and preliminary themes were identified within the research. This also allows the reader to judge how the conclusions drawn upon may be more widely applied. Both the research setting and the main themes identified have been described clearly within this thesis and therefore the value of the current findings is evident.

5.7: Conclusion

This chapter has demonstrated how the current study has addressed the original research aim, this is as follows;

To gain a detailed understanding of what it means to become connected to Nature and the benefits of doing so according to volunteers from a weekly outdoor gardening group.

I have outlined how the current findings compare to central theories including; The Biophilia Hypothesis, Attention Restoration and Stress Reduction. The main body of this discussion has focused upon key concepts of 'Escapism', 'Identity', 'Feeling Good' and 'Learning', all of

which have comparisons to previously utilised nature-based interventions (King, 2012; Clatworthy, 2013). The findings contribute to knowledge in the area of nature-based intervention research. The six themes; 'Escape', 'Identity within a Community', 'Feeling Good whilst in Nature', 'Becoming one with Nature', 'Psychological Relaxation' and 'Learning new things', all appear to be key aspects involved in the experience of connecting to nature through horticulture activities.

It is evident that becoming connected to nature has important implications for psychological well-being within a gardening setting. The main themes identified within these findings highlight why individuals find spending time outdoors so beneficial. Therefore they bridge the gap between nature connectedness' theoretical understandings and the positive outcomes that being connected to nature can bring.

The findings from this research are valuable and, through publishing and review, it is possible that they can be utilised within practice and future research. They may also be disseminated to the populations who may find them helpful, whether this be to inform future nature-based interventions or more widely within non-clinical settings. The main themes are all common features associated with becoming connected with nature, within gardening interventions at least. Therefore, they are useful in terms of informing the population on the key aspects associated with spending time in nature and consequentially improving psychological, emotional and relational well-being. Overall, further research is required to build upon this and assess to what extent these factors are associated with nature and well-being interventions, i.e. are they limited to nature-based interventions? Or should these findings be applied further?

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Appendix

Appendix A. Consent form



PARENT INTERVIEW CONSENT FORM

Volunteering in the outdoors: The experience of becoming connected to nature.

It is important that you read, understand and sign the consent form. Your contribution to this research is entirely voluntary and you are not obliged in any way to participate, if you require any further details please contact me or an S2R representative.

If you are satisfied that you understand the information and are happy to take part in this project please put a tick in the box aligned to each sentence and print and sign below.

I have been fully informed of the nature and aims of this research as outlined in the information sheet.

I understand that I have the right to withdraw from the research at any time without giving any reason.

I give permission for my words to be quoted (by use of pseudonym).

I understand that the information collected will be kept in secure conditions for a period of 10 years at the University of Huddersfield.

I understand that no person other than the researcher and supervisor/s will have access to the information provided.

I understand that I should not disclose information discussed within group interviews in order to protect the confidentiality of those involved.

I understand that my identity will be protected by the use of pseudonym in the report and that no written information that could lead to my being identified will be included in any report.

I consent to taking part in the group interview.

I consent to my Son/s and/or Daughter/s taking part in the group interviews.

Signature of Participant:

Signature of Researcher:

Print:

Print:

Date:

Date:

Appendix B. Interview questions

Interview questions

1. How did you first get involved with the growing group?
2. Have you been involved with any of S2R's other groups or activities?
3. What did you hope/ expect to gain from attending the sessions?
4. What have you gotten out of attending so far?
(Specific examples) – What helped (if at all)?
How has it benefited you?
In what aspects of life did it help?
5. Have there been any limitations or negatives of your experience?

(Where relevant)

6. History of NHS use / other interventions and comparison to this group.

Appendix C. SREP application

THE UNIVERSITY OF HUDDERSFIELD
School of Human and Health Sciences – School Research Ethics Panel

APPLICATION FORM

Please complete and return via email to:
Kirsty Thomson SREP Administrator: hhs_srep@hud.ac.uk

Name of applicant: Natalie Sugden

Title of study: The experience of volunteering in the outdoors: becoming connected to nature.

Department: Psychology

Date sent: 17/05/18

Please provide sufficient detail below for SREP to assess the ethical conduct of your research. You should consult the guidance on filling out this form and applying to SREP at <http://www.hud.ac.uk/hhs/research/srep/>.

Researcher(s) details	Natalie Sugden, MSc by Research
Supervisor(s) details	Professor Nigel King Tim Gomersall
All documentation has been read by supervisor (where applicable)	YES
Aim / objectives	<ul style="list-style-type: none">To understand the experience of becoming connected to nature, for the perspective of volunteers enrolled on a weekly gardening group.
Brief overview of research methods	<p>Support to Recovery (S2R) conduct a weekly group session with a small group of individuals from the Kirklees area. The Poly Tunnel group regularly meet in the outdoors to learn and share horticulture skills.</p> <p>In the first few sessions I will record the expectations of S2R representatives to gain an understanding of any benefits they hoped would come out of conducting weekly growing days. I will observe the sessions and record notes relating to my research, whilst building a rapport with the individuals involved.</p> <p>Semi structured interviews will then be carried out, perhaps group discussions depending on which is better suited to the situation. I will then analyse the data from these interviews using Template Analysis (King & Brooks, 2017), or a similar thematic approach.</p> <p>The findings will highlight how S2R's programme impacts upon the psychological health and well-being of the individuals involved. The proposed research will work alongside S2R to support and review the impact that the growing programmes have.</p>
Project start date	01/06/2018

Project completion date	18/09/2018
Permissions for study	Consent from the participants will be requested prior to any research being carried out. I am now a volunteer at S2R and have been granted permission to help out and conduct MSc research within their growing group.
	<p>Permission Jason Kerry <jason@s2r.org.uk> Ruth Dodds <ruth.dodds@kirklees.gov.uk></p> <p>Reply all Mon 10/16, 4:36 PM Natalie Sugden (Researcher) Action Items</p> <p>Hello,</p> <p>Natalie is very welcome to come along to the group anytime and/or contact me beforehand with any questions if necessary</p> <p>Many thanks</p> <p>Ruth</p> <p>Ruth Dodds Volunteer Coordinator Parks and Greenspaces, Flint Street, Fartown, Huddersfield. HD1 6LG Tel: 01484 221000 Mobile: 07792 392932</p> <p>S2R Support to Recovery Promoting Positive Mental Health</p> <p>S2R are now based at 5-7 Brook Street, Huddersfield HD1 1EB (next door to CAB and near the open market)</p> <p>www.S2R.org.uk</p> <p>t: 01484 539531 f: 01484 451710</p>
Access to participants	S2R have given permission for me to attend the activities with them, to both participate and also be involved in the development of these. Participants for the interviews will be volunteers who are taking part in S2R's growing group activity. Information sheets and consent forms will be available at these activities set up by S2R. Any consent forms should be signed and handed back to myself. Any volunteers who are under 18 must have parental consent to be involved.

Confidentiality	<p>Participants will be asked to keep any information disclosed within the interviews private for the confidentiality purposes of others involved. It is the interviewer's responsibility to lead conversation and divert from any problematic or harmful discussion.</p> <p>All interview recordings will be saved on a password protected computer and deleted from recording devices as soon as possible. When full transcripts have been made these recordings will then be permanently deleted.</p>
Anonymity	<p>Pseudonyms will be used throughout the report of findings. Participants will have the right to review transcripts prior to them being used within the report, it will be made clear that direct quotes will be stated within the report which may be recognised by others within the school who have also been involved in the research.</p>
Right to withdraw	<p>All participants have the right to withdraw at any point within the research, data may also be withdrawn at any time, up until final analysis has been carried out and the report has been written. Participants will be made fully aware of this prior to taking part.</p>
Data Storage	<p>All interview recordings and transcripts will be stored in my K drive on a password protected computer. Only myself and my project supervisors will have access to this data.</p>
Psychological support for participants	<p>Numerous sessions over a few weeks will allow any longer-term impacts to be recorded and give opportunity for and questions/ queries regarding the research, support can be given if needed. S2R representatives will also be available to have discussions with participants if required.</p>
Researcher safety / support (attach completed University Risk Analysis and Management form)	<p>Both observations and interviews will take place alongside S2R representatives and so there is minimal risk to the researcher.</p>
Consent Form	<p>(See below) Observation consent form Interview consent form</p>
Information sheet	<p>(See below)</p>

Appendix D. Preliminary coding procedure

change life for better

A: Erm not intentionally I don't think, unintentionally maybe, I do like to try and do different things ^{new things.} like that are gonna make my life more interesting, you know it's nice to meet new people and have a chat and that, it's good even just coming out for the cuppa tea (L) it's just something different, you know like a nice day out, I get my exercise and outside time and it's a bit like a chill out (...) ^{new people} chill time. ^{different to normal}

I: Yeah (L) so was there a particular reason why you decided to come along other than it being suggested by someone?

A: Erm it did appeal to me, it did sound like something I'd enjoy doing and spending time on, you know it's something worthwhile ^{worthwhile} where you can see the benefits, its very satisfying seeing things grow that you've worked hard on. And there's the opportunity of awards and things, as you know (...) erm I think you know generally I'm just up for most things now, you know I give most things a go and just think why not, I've got nothing better to do with my time so... ^{beneficial} good way to spend time.

I: Right, so how did you first get involved with S2R then?

A: Erm so I just saw some kind of ad or something, a post on facebook, erm I think my friend shared or something, and I looked online at their website and went from there really.

I: Oh okay, so was there any reason why you thought joining in at S2R would benefit you?

A: Well I don't know it just gets so boring at home, like I'm on my own unless my son or someone comes around to visit, and I thought while I still can get out and that for myself why not get involved in something. To be honest I think I was just getting a bit down and that stuck in by myself all the time, you know waiting for people to come and entertain you almost. Like I just thought I need to do something so why not try some local activities like this, like I know its supposed to be for people with mental health issues but (...) I dunno (...) ^{doesn't associate as psych issues.}

I: Well no, I think the point of S2R is to include anyone who feels like they want to be included, you know you don't have to have a diagnosis of depression to want to be involved with a local group?

A: Yeah, I mean I know people who do have some difficulties like that you know like anxiety and stuff but I'm not saying I have depression or owt but you know its nice for people to have break. Like the freedom of coming for myself and thinking oh yeah today is peace pit day – great, let's get sorted, you know it's good for me. I dunno about mental health really and stuff, obviously like you but I don't think there can be any harm in coming out and having an hour or so here in the open, you know fresh air and all that (...) ^{break from reality.} fresh air

I: Oh yeah definitely not. So, do you think there have been benefits to you then? From joining the growing group?

A: Yeah 100%! I feel good for coming, there'd definitely a feelgood factor about coming and doing this for myself, like making new friends and just chatting whilst working in the community, it's great, like you know everyone gets bad days and that and I feel down now and then but you know there's always something to look forward to in the week with this, it definitely helps, you know like when I'm here I can just think about nothing, you know like leave stuff behind and have a free mind for a KARLAN ART (1995) ^{community} RELAX / FORGET ABOUT NASSIES.

Handwritten notes on the left margin:
 - "socialise community"
 - "I proud? see things grow"
 - "may as well get involved"
 - "overly deny any psych symptom"
 - "Good for you"
 - "everyone has bad days"