The Perceived Impact of Caring for Animals on Adults with a Learning Disability.
An Exploratory Study.

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Foreword

I was delighted to be asked to write the Foreword for this Animal Research Project, not only because one of the authors is a member of my staff, but also because the research was conducted in an ‘animal care’ project undertaken as a partnership between the Southern Health and Social Care Trust Learning Disability division and the USPCA, involving a number of service users from the Southern Health and Social Care Trust. For some time we have believed that interaction with animals is therapeutic for individuals with a learning disability and can bring many benefits to their lives and the lives of their carers. We believe that such activity increases the confidence of those involved, provides them with opportunities they may not have otherwise experienced and increases their self-esteem.

All of these key outcomes are espoused in Bamford and other key publications outlining policy direction for Learning Disability services. While this is an exploratory Pilot Study it does raise many interesting questions and opportunities for further research as we all strive to optimise the services for people with a learning disability.

Congratulations to all involved.

Micéal Crilly, Assistant Director Disability Services, SHSCT
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Abstract

Much has been written concerning the relationship which has developed between humans and animals over a period of more than 10,000 years, a bond which has spawned the interdisciplinary field of anthrozoology, the study of the interactions between human and non-human animals. Caring for domestic and non-domestic animals is a salient feature of human-animal relations and an activity which prompted this pilot research study. Existing research suggests that in farm settings Adults with a Learning Disability (ALD) and other vulnerable adults can derive a range of social, psychological and physical benefits from not only interacting with animals and the environment but from interaction with fellow participants in various farm work activities. This exploratory study in seeking to further examine this area of human-animal interactions focused on the perceived impact of caring for a range of companion and farm animals by Adults with a Learning Disability in a non-domestic setting.

Aim: This pilot research study explored the perceived impact of caring for a range of animals in a non-domestic setting upon Adults with a Learning Disability.

Methods: There was a tripartite approach to gathering data through interviewing 18 Adults with a Learning Disability, their carers and the staff who oversaw the Adults with a Learning Disability as they cared for the animals over a period of 20 weeks. The data were collected from individual interviews conducted on a before and after basis. The interviews were taped, transcribed and subjected to a thematic content analysis.

Findings: The findings suggest that caring for a range of animals in a non-domestic setting was perceived to have had a positive and beneficial effect upon the Adults with a Learning Disability who took part in the study. Participants themselves, through their own words and those of their carers and staff, were reported to have experienced increases in self-confidence, independence and patience coupled with improved social skills. In addition to learning new and potentially transferrable skills, participants were also reported to have demonstrated positive interaction with animals and other participants, as well as indicating evidence of personal development and improved emotional well-being.
Conclusions: This small study identifies perceptions of favourable effects on Adults with a Learning Disability involved in caring for animals. Further research to fully understand the impact of caring for animals on Adults with a Learning Disability is needed.
1.0 Introduction
Research into the perceived impact of caring for animals on Adults with a Learning Disability is important as it is a particular area where research is not plentiful and one where anecdotal evidence would suggest beneficial outcomes for this particular group of people. Studies on Animal Assisted Activities (AAA) and Animal Assisted Therapy (AAT) suggest positive and favourable effects in a multitude of settings for a broad spectrum of people at large however there are limited reports from studies specifically targeting adults with learning disabilities. The ARC, where the research study took place, is a day-opportunities centre built on a seven-acre site and is a partnership arrangement between the Southern Health and Social Care Trust (The Trust) and the Ulster Society for the Prevention of Cruelty to Animals (USPCA). Part of the centre is used to house animals which are subsequently cared for by Adults with a Learning Disability who attend the site.

1.1 Literature Review
A literature review was undertaken at the beginning and on an ongoing basis throughout the duration of the research project.

Search Strategy
A search of 5 databases was undertaken - CINAHL, EBSCO, Medline, Biomed Central Journals and PubMed using the following keyword combinations – impact of caring for animals, value of animals for humans, humans and pets, animals and pets in therapeutic settings, physiological effects of pets/animals on humans, psychological effects of animals on humans, the human-animal bond, socialisation accruing from pet/animal ownership, pets/animals and Adults with a Learning Disability/learning difficulty, pet/animals and adults with an intellectual disability, pets/animals and adults with autism, care farming and Adults with a Learning Disability, social farming and Adults with a Learning Disability.

This yielded a large number of results on a wide range of animal and human-related subjects but comparatively very little of relevance to Adults with a Learning Disability in the area of caring for animals. Studies retrieved from the search broadly fell into two areas; firstly those that focused on the relationship between humans and their pets (physiological, psychological and social aspects and effects), while the second
outlined the burgeoning volume of research which has, and is being carried out in relation to Animal-Assisted Activities (AAA) and Animal-Assisted Therapy (AAT). Both areas of research attributed positive and some negative outcomes to interaction between animals and humans but very few studies that specifically reported on the perceived impact of caring for animals on Adults with a Learning Disability were located.

1.2 Definition of Adults with a Learning Disability
The British Institute of Learning Disabilities offers the following in relation to terminology used in connection with people with learning disability:

“The term learning disability is a label and a label only ever describes one aspect of a person; a person with a learning disability is always a person first” (BILD 2017a What is a learning disability? para.1).

The Department of Health in outlining its strategy for learning disability in the 21st century explained that learning disability includes the presence of:

- A significantly reduced ability to understand new or complex information, to learn new skills (impaired intelligence), with;
- A reduced ability to cope independently (impaired social functioning);
- which started before adulthood, with a lasting effect on development.” (Department of Health 2001, 1.5, p.14).

The British Institute of Learning Disabilities also draws attention to divergent definitions in relation to terminology in this area:

“Learning disability and learning difficulty are the most commonly used terms in the UK and are sometimes used interchangeably in the context of health and social care for adults. However, in some settings these terms may have different meanings. The term learning difficulty is used in educational settings in the UK to include those individuals who have ‘specific learning difficulties’, such as dyslexia, but who do not have a significant general impairment of intelligence” (BILD 2017b What is the difference, para.3).

The term learning difficulty is preferred by many over the term learning disability while the usage of the term intellectual disability is on the rise across English speaking countries, particularly among professional groups working in the area of learning disability (BILD 2017b What is the difference).
Care should however be exercised in relation to the use of the terminology as some terms carry different meanings depending on their geographical origin and usage. Emerson and Heslop (2010) for example note that while the terms intellectual disability and the UK term learning disability are commutable in health and social care contexts, in some countries, including the USA, a “learning disability” is the term used to describe people with particular learning difficulties, for instance, dyslexia.

For the purposes of this exploratory study, the Department of Health (2001) definition of Learning Disability has been used.

1.3 Terminology Used to Describe Interactions between Animals and Humans
The literature search highlighted the range of terminology used to describe the interactions and relationships which may exist between animals and humans. For this study, the terminologies and definitions of the Delta Society/Pet Partners organization, the U.S. Department of Justice and the American Society for the Prevention of Cruelty to Animals (ASPCA) have been used.

Table 1 Terminology used to describe interactions between animals and humans

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<th>Terminology</th>
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<tr>
<td>Animal-Assisted Intervention (AAI)</td>
<td>“Animal-assisted interventions are goal oriented and structured interventions that intentionally incorporate animals in health, education and human service for the purpose of therapeutic gains and improved health and wellness” (Pet Partners 2016 Terminology, para.8; <a href="https://petpartners.org/learn/terminology">https://petpartners.org/learn/terminology</a>).</td>
</tr>
<tr>
<td>Animal-Assisted Therapy (AAT)</td>
<td>“Animal-assisted therapy is a goal oriented, planned, structured and documented therapeutic intervention directed by health and human service providers as part of their profession” (Pet Partners 2016 Terminology, para. 9; <a href="https://petpartners.org/learn/terminology">https://petpartners.org/learn/terminology</a>).</td>
</tr>
<tr>
<td>Animal-Assisted Activities (AAA)</td>
<td>“Animal-assisted activities provide opportunities for motivational, educational and/or recreational benefits to enhance quality of life. While more informal in nature, these activities are delivered by a specially trained professional, paraprofessional and/or volunteer, in partnership with an animal that meets specific criteria for suitability” (Pet Partners 2016 Terminology, para.11; <a href="https://petpartners.org/learn/terminology">https://petpartners.org/learn/terminology</a>)</td>
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<tr>
<td>Therapy Animals</td>
<td>Therapy animals “provide affection and comfort to various members of the public, typically in facility settings such as hospitals, retirement homes, and schools. These pets have a special aptitude for interacting with members of the public and enjoy doing so. Therapy animal owners volunteer their time to visit with their animal in the community” (Pet Partners 2016 Terminology, para.1; <a href="https://petpartners.org/learn/terminology">https://petpartners.org/learn/terminology</a>)</td>
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<tr>
<td>Service Animals</td>
<td>“Service animals are defined as dogs that are individually trained to do work or perform tasks for people with disabilities”, for example, “guiding people who are blind, alerting people who are deaf, pulling a wheelchair, alerting and protecting a person who is having a seizure”. Service dogs are considered to be working animals, not pets. (U.S.Department of Justice 2011 p.1).</td>
</tr>
<tr>
<td>Companion Animals</td>
<td>Defined as “domesticated or domestic-bred animals whose physical, emotional, behavioral and social needs can be readily met as companions in the home, or in close daily relationship with humans” (ASPCA 2015 Policy and Position Statements, p.1).</td>
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The definition which best describes the interactions between participants with a learning disability and the animals in this study is Animal Assisted Activities (AAA).

1.4 Human-Animal Relations
The literature describes human-pet relations and highlights the strength of the bonds that exist between them. Many people consider pets to be members of their family (Cain 1983; Risley-Curtiss 2006; Faver and Cavazos 2008) with individuals perceiving their relationship with their pet dog as being as close as their relationship with a spouse, child or parent (Barker and Barker 1988). Findings indicate that pet loss can commonly cause significant levels of grief reactions and sadness (Adrian et al. 2009) and also present an area of potential clinical concern, especially if the person's attachment to the pet was strong (Wrobel and Dye 2003). Findings suggest that:

“in some family systems the death of a pet is a stressor at the family system level that adds significantly to total family system stress and pile-up with consequent increased risk of disorganisation” (Gage and Holcomb 1991, p.104).

Many people with pets at home consider them to be an integral part of their life and have indicated that interaction with them provided support and comfort during difficult times (Enders-Slegers 2000; Adamle et al. 2009) as well as alleviating loneliness (Banks and Banks 2002) during times of stress (Cain 1985; Sable 1995; Mc Nicholas and Collis 2000; Staats 2008). Chur-Hansen et al. (2010) stated that “The unconditional, non-evaluative nature of a companion animal’s emotional support may also make their company less stressful than that of a human peer” (p.142).

Dogs in outdoor settings can also function as catalysts for social interaction (Messent 1983; Mc Nicholas and Collis 2000) and help increase and improve levels of physical activity among owners (Herbert and Greene 2001; Cutt 2008). Dog-walking has been deemed to be potentially beneficial for some older adults in comparison with walking with other adults (Johnson et al. 2010). Findings from an online survey of 5253 Japanese adults revealed that dog owners engaged in appreciably more walking and physical activity than owners of other kinds of pets and those without any pets, thus suggesting the significant role that dogs may play in promoting physical activity (Oka and Shibata 2009). A more recent study by Campbell et al. (2016) aimed at “exploring perceptions of health and wellbeing
related to dog-walking in healthy adults” (p.181), reported through walk-along interviews:

“novel insights about how the emotional connection between human and dog strengthens intrinsic motivation to exercise (through dog-walking) whilst concurrently enhancing human psychological wellbeing through the act of giving something that gives pleasure to the dog” (p.181).

The authors also noted that in terms of psychological wellbeing some negative influences were identified in relation to anxiety “about both dog behaviours and social encounters with other humans” (p.181).

1.5 Physiological and Psychological Effects of Pets

The beneficial physiological effects claimed for pets on humans are considerable and also well-supported through a range of research. Findings have shown lower blood pressures in children in the presence of a dog (Friedmann et al. 1983), reduced state-anxiety in a stressful situation through petting an animal (Shiloh et al. 2003) and as well as lessening reactivity to acute stress, the non-judgemental social support provided through the presence of pets was deemed to have had beneficial effects in cardio-vascular and behavioural areas (Allen et al. 1991; Allen et al. 2002). Other research also suggests that the use of pets could help to decrease blood pressure surges during stressful activities in older hypertensives (Friedmann et al. 2007). Findings which challenge the long-held belief that owning a pet is advantageous have however been reported in research involving over 300 older adults which suggested that neither pet ownership nor pet attachment were significant additions to explained variance in health and well-being among this group (Winefield et al. 2008). From a psychiatric perspective, the use of Animal-Assisted Therapy (AAT) has been linked with reduced state-anxiety levels for hospitalised patients with an array of psychiatric diagnoses (Barker and Dawson 1998). It has also been suggested that adding a pet to the social environment could alter stress responses in participants (Allen et al. 2001). Findings in two studies have related pet ownership and social support to survival among patients with coronary artery disease (Friedmann et al. 1980; Friedmann and Thomas 1995). Other findings however, which challenged the claim that pet ownership reduces cardiovascular risk, were posted in a large Australian research study among adults aged 40-44 and 60-64 which returned no evidence connecting
pet ownership per se with cardiovascular health benefits (Parslow and Jorm 2003). A similar study involving 2551 participants aged between 60-64 years also failed to identify any health benefits conferred by pet ownership or pet caring responsibilities (Parslow et al. 2005). In addition a more recent study also challenged earlier findings in relation to pet ownership and improved outcomes following an admission for Acute Coronary Syndrome in reporting that the 1-year risk of readmission or cardiac death was not statistically different between dog owners and non-owners as previous studies had found (Parker et al. 2010).

The continuing divergence in findings and conclusions between studies was further illustrated in a statement from the American Heart Association which expressed the view that “pet ownership, particularly dog ownership, is probably associated with decreased CVD risk” and “may have some causal role in reducing CVD risk” (Levine et al. 2013, p.2356).

AAT has been used extensively in the area of dementia yielding statistically significant decreases in agitated behaviours and significant increases in social reactions (Richeson 2003); it has also in this area elicited positive attitudes and engagement towards real dogs and dog-related stimuli (Marx 2010). In the sphere of schizophrenia contact with a dog brought reports of positive change in activities and skills during therapy sessions and in their everyday lives among a small group of participants (Kovacs et al. 2004) and by employing AAT through Therapeutic Horseback Riding, six inpatients diagnosed with schizophrenia were reported to have enjoyed themselves, learned horsemanship skills and exhibited increased self-confidence (Corring et al. 2010). Further research in the area of schizophrenia, using Animal Assisted Activities (AAA), also reported significant improvements in many clinical aspects among participants (Chu et al. 2009). Positive findings have also been posted in relation to the treatment of depression through the use of Dolphin-Assisted Therapy (Antonioli and Reveley 2005).

1.6 Use of Animals with Children and Young Adults

Studies involving at-risk adolescents and their interactions with animals have reported increases in positive behaviours and self-esteem among participants (Terpin 2004; Trotter 2008) and in the area of anger management among adolescents it has been recorded that through the deployment of animals, emotional anger was substantially reduced. This was further accompanied by an increase in
feelings of happiness, security and self-worth coupled with a reduction in feelings of loneliness, isolation and stress (Hanselman 2001). The employment of AAT using shelter dogs with elementary and middle school children in a school-based violence prevention/intervention and character education programme was reported as having generated positive and significant outcomes in terms of changing students’ opinions on topics such as aggression, violent and aggressive behaviours, as well as levels of empathy (Sprinkle 2008). Several AAT studies involving horses, and in one case donkeys, have also indicated positive findings; for example it was reported that for a group of 14 children placed in Therapeutic Foster Care (TFC) who engaged in therapeutic horseback riding, participation “improved emotional and behavioral issues with a decrease in problematic conduct for children” with participants reporting “personal change in behavior, satisfaction, socialization, and acceptance” (Kesner and Pritzker 2008 p.86). Research by Bass et al. (2009) in the area of therapeutic horseback riding was also said to have demonstrated possible benefits for children with Autism Spectrum Disorder where in a study which involved 34 participants results were reported that suggested improvements among children in the experimental group “in critical areas such as sensory integration and directed attention” (p.1266). Improvements were also noted in relation to “improved social motivation and sensory sensitivity, as well as decreased inattention and distractibility” (p.1266). Limitations to the study were however also acknowledged by the authors in the area of information concerning medicine regimens among the children and whether “parents of participants in either the experimental or control groups participated in any therapy or self-help classes” (p.1267). Further findings concerning the use of therapeutic riding (TR) involving 21 elementary students with autism elicited teacher ratings which “indicated that participating children with autism significantly increased their social interaction, improved their sensory processing and decreased the severity of symptoms associated with Autism Spectrum Disorders following TR ” (Ward et al. 2013, p.2190). As the findings of this small study were preliminary and did not include a control group, the authors however advised caution in the interpretation of those findings. A reduction in the severity of autism symptoms was also highlighted in relation to children involved in a therapeutic riding programme (Kern et al. 2011) and in another study, using horses (hippotherapy), significant improvements in relation to muscle activity in children with spastic cerebral palsy were reported (Benda et al. 2003). Further findings in the area of
equine-assisted therapy suggest that its employment may help to reduce deficits in balance among children with movement disorders thus enabling them to better perform everyday life skills (Silkwood-Sherer et al. 2012). In addition, two other studies involving the use of horses firstly suggested that improvements had taken place in “motor performances in fundamental motor skills (walking, running, and jumping)” in two young children diagnosed with Down’s syndrome (Champagne and Dugas 2010, p.570) and secondly in research involving six participants who had suffered from trauma it was suggested that the relationships participants had with their horses contributed significantly to their recovery from trauma (Yorke et al. 2008). Research using horses and donkeys (onotherapy) with adults with intellectual disability has also posted results which “demonstrated improvement in the general autonomy and social integration of subjects with mental and neuro-motor disabilities” (Borioni et al. 2012, p 285). In a meta-analysis of AAT research, Nimer and Lundahl (2007) stated that “positive, moderately strong findings were observed across medical well-being, and behavioural outcomes as well as a reduction in Autistic spectrum symptoms” (p.234) and subsequently indicated that this and other findings lent support to the commonly held belief that animals can play a positive role in the human healing process.

1.7 Use of Animals with Children in Hospital Settings
Research studies using AAT and AAA in hospital settings have reported findings that suggest that in children with chronic disorders “heart rates, parent’s ratings of the child’s mood, and display of positive affect were enhanced” (Kaminski et al. 2002 p.321) and in another a reduction in pain was reported among children whose average age was 12.1 years after AAT in an acute paediatric setting (Braun et al. 2009). Some evidence to challenge previous assumptions that a friendly dog would exert a calming effect on participants has also been posted in the findings of a small study which reported that blood pressure and pulse rates of children with ADHD rose significantly five minutes after holding a friendly dog (Somervill et al. 2009).

1.8 Use of Animals in Prison Settings
In penal settings, findings from a study using a small sample of inmates (n=6) involved in a prison canine programme reported positive rehabilitative effects from their work with dogs (Turner 2007) while Jasperson (2010), in another pilot AAT
programme comprising a small group of female inmates (n=5) with a mental illness, posted that participants, albeit anecdotally, were reported to have “expressed feeling connected to the dog” used with the group (p.430) and exhibited greater openness to involvement in discussion and activities within the group context.

1.9 Use of Animals with Disabled Adults
Research involving interaction between ten multiply-disabled adults and human-socialised goats has concluded that “regular animal contact had contributed to the wellbeing of multiply-disabled clients, and had a sustained effect on their behaviour when with the goats, but did not lead to a measurable behavioural change of clients in other situations” (Scholl et al. 2008, p.297).

1.10 Animals used in Therapeutic Settings
Evidence supporting the effectiveness of animals as facilitators of communication in therapeutic scenarios has been available for many years (Levinson 1969) as has Brickel’s belief that animals in such situations help deflect anxiety and by their presence act as a means whereby information can be channelled and communicated (Brickel 1982). In an AAT study using farm animals to treat children with emotional, academic and behavioural problems, findings indicated that the children utilized the farm animals as confidantes, companions, distractions from anxiety and in many ways surrogate therapists. The animals, it was reported, also served as catalysts for dialogue and interaction between child and therapists (Mallon 1994).

1.11 Animals in Farm Settings
Employing a farming setting and the animals therein as aids to therapy is a growing area for research and one which psychiatric therapists believe could contribute better to mental health than other types of occupational therapy (Berget et al. 2008). Firstly in interacting with farm animals it has been reported that increased general efficacy and a reduction in anxiety was evidenced among a group of participants with affective disorders (Berget et al. 2007) and secondly that working with animals may, for patients with long-term psychiatric symptoms, have positive influences in the areas of self-efficacy and coping skills (Berget et al. 2008). Follow-up research has also reported a significant decrease in anxiety among psychiatric patients involved in AAT (Berget et al. 2011).
In the particular area of care farming where involvement in farm activities for a therapeutic purpose is a primary objective, findings are limited but participants in the Netherlands with mental health problems were reported to be making progress towards recovery through their involvement in farm work as it “empowered them to leave behind inactive, isolated or disorganized living” (Iancu et al. 2014, p.573). A recent systematic review also originating from the Netherlands found that patients with mental disorders viewed both the social and occupational elements of farm-based interventions as being valuable (Iancu et al. 2015) while in another study it was reported that adults with learning difficulties felt fulfilled through working on care farms as they felt that they were performing ‘real’ or necessary work (Elings 2004). Research by Hine et al. (2008) into the extent and potential of care farming in the UK has identified some of the social benefits for participants in care farm projects, as reported by farmers, in the areas of independence, formation of a work habit, teamwork, development of social skills and personal responsibility. Mental health benefits were also reported in a health survey conducted during the same study which found increases in self-esteem and improvement of mood among participants. Whilst the mental health component of the study provided a “detailed and qualitative analysis”, it was, by the authors’ admission, “designed specifically as a small-scale ‘snapshot’ or a ‘one moment in time’ study of the changes in psychological health and well-being experienced by a range of participants after spending time on a care farm” and as it did not measure “longitudinal changes in physical and mental health and social functioning over a longer period of time” then limitations in this area of the study were acknowledged (p.95). Recent research has also reported statistically significant and positive links between time spent by participants on a care farm and “subjective happiness, satisfaction with life and more generic mental well-being” (Leck 2013 p.iii). It is important however to acknowledge at all times, in relation to animal-human interactions, the existence of contraindications which may influence decisions regarding the initiation or continuation of AAI’s. Morrison (2007), for example, indicated that “the patient or client may have a significant fear of the animal, express “disinterest” in the animal, or be unable to treat the animal in an appropriate, humane manner.” (p.58). Another significant contraindication which the author suggested may also influence any decision relating to participation in AAI’s may be the existence of a medical condition in a participant which could be aggravated by involvement with animal activities.
1.12 Use of Animals in the Area of Autism Spectrum Disorder and Special Needs

In the area of children with special needs, Autism Spectrum Disorder (ASD) and learning disability, there is some literature which has suggested beneficial outcomes accruing from their interaction with animals in therapeutic settings. Employing Dolphin-Assisted Therapy (DAT) with children with special needs has reported some positive changes in behaviour among participants, particularly in the area of inhibition and anxiety disorders, as detailed by parents. The study however, had limitations in terms of design, one being that parental assessment of behavioural changes in participants may not be considered by some to be as valid as those offered by independent observers (Dilts et al. 2011). Research has also offered evidence of increased social skills (Davis et al. 2004; Burrows et al. 2008; Solomon 2010; O’Haire et al. 2013; Carlisle 2015) and prosocial behaviour among children with Autistic Spectrum Disorders (ASD), as a result of interacting with animals, in the main, dogs (Grandgeorge et al. 2012). It has also been stated that a preference for dogs on the part of children with ASD may be attributable to the ability of the dogs to convey their intentions in a way that is more easily understood by children in an interaction which lacks verbal communication (Prothmann et al. 2009). Other findings report that parents can perceive assistance dogs to be “a valuable intervention” for children who have ASD, particularly in the areas of safety and comfort (Burgoyne et al. 2014, p.1) while in another study, companion animals, in providing a strong multisensory stimulus to children with autism, were seen as offering an effective therapeutic approach through the immediacy and accessibility of their behavioural responses to children (Redefer and Goodman 1989). Another study by Wright et al. (2015) involving primary carers of children with ASD, in which 38 of their number acquired a dog while 24 controls did not, returned findings which indicated that “a significant number of parents in the intervention group moved from clinically high to normal levels of Parental Distress” (p.2531). Though limitations were acknowledged in some areas of the research study, the results were said to have flagged the potential and benefits of pet dogs in reducing stress among primary carers of children with Autism Spectrum Disorder. The conclusions reached by Wright and colleagues have subsequently been challenged by Crossman and Kazdin (2016) who stated that the “study’s conclusions are premature” and that the benefits of pet ownership, though not being challenged “have not yet been established” (p.332).
While there is a substantial body of existing research which claims positive effects for human-animal interaction in a variety of settings, there is however research which challenges that positivity. The quest for hard evidence to substantiate the existence of causal links between animals and their effects on human health is one sometimes characterised by flaws in research design and processes.

2.0 Methodology

Given the limited literature published about Adults with a Learning Disability and their interaction with animals, particularly non-pets in a caring, non-domestic setting, it was considered that the aim of this exploratory study could be best met through a qualitative approach. This approach utilised one-to-one interviews with Adults with a Learning Disability, their carers and staff involved in facilitating the group activities with the animals in the ARC for the purpose of gathering their views and impressions of their involvement in the study. The interviews were conducted at two separate time points for each of the three groups of participants in the research which took place over a 20 week period.

2.1 Sample and Recruitment

Adults with a Learning Disability

Originally the study proposed to draw participants with a learning disability from service-users accessing the ARC, a day-opportunities centre built on a seven-acre site in Bessbrook. This centre is a partnership arrangement between the Southern Health and Social Care Trust (The Trust) and the Ulster Society for the Prevention of Cruelty to Animals (USPCA). Part of the centre is used to house animals which are subsequently cared for by Adults with a Learning Disability who attend the site. However, due to recommendations from the Office for Research Ethics Committees Northern Ireland (ORECNI) which advised that participants should not have been involved in caring for animals in the ARC prior to the commencement of this study, the participants were drawn from a wider catchment area as those living in the locality of the proposed project had already been involved in caring for animals on the ARC site. As a result, the opportunity to take part was offered to 21 other Adults with a Learning Disability participating in day-opportunity programmes from other localities, none of whom had previously been involved in caring for animals in the
ARC. 18 Adults with mild to moderate learning disabilities from that number subsequently chose to participate in the animal research study.

Carers of Adults with a Learning Disability
Initially, it was proposed to undertake focus groups with the carers, however, due to participants being drawn from outside of the immediate locality, the distance involved in travelling to the ARC made it impractical for some carers to attend. It was therefore decided to conduct one-to-one interviews with each carer in a setting of their choice which was geographically convenient for them and the research team would subsequently travel to interview them there. This resulted in 18 carers participating in the animal research study.

Staff overseeing Adults with a Learning Disability
One-to-one interviews were conducted at two separate points in time with the 2 staff members identified to work with the participants throughout the animal research study. This provided 360 degree feedback as well as ensuring consistency of approach for everyone involved in the study. In order to provide appropriate supervision for the 18 Adults with a Learning Disability who had not previously attended the ARC and who had consented to participate, two groups, each comprising 9 members, cared for the animals on one day each week for 20 weeks.

2.2 Consent, Ethical Considerations and Governance
All of the Adults with a Learning Disability who took part in the study were identified by experienced professional support staff in the field of learning disability as participants who had capacity to consent. All materials used for the purposes of communication throughout the entire study e.g. ALD consent forms and ALD Participant Information documents were designed with support from the Speech and Language Therapist in order to ensure that any potential ALD participants were fully informed about what taking part in the study involved for them. All participant recruitment and data collection materials used in communication with Adults with a Learning Disability were therefore produced in this manner to promote clarity and comprehension in relation to every aspect of the research study. This was done to ensure that all participants were willing to take part in the study, were able to fully understand what they were agreeing to take part in and could comprehend what that
involvement would entail for them. An easy-read version of the study findings, conclusions and recommendations was also produced by the authors upon completion of the study (Appendices 1 and 2). A distress protocol was also drawn up to ensure that anyone who changed their mind about taking part would be fully supported and able to withdraw from the study (Appendix 3). All possible care was taken to ensure that the principles of beneficence and maleficence were adhered to throughout this research study. Permission was sought for the study and it was subsequently approved by the Southern Trust Governance Committee, the Southern Trust Research Department and favourable ethical opinion given by the Office of Research and Ethics Committee Northern Ireland (Appendix 4).

**Table 2** Inclusion / Exclusion criteria for participants

<table>
<thead>
<tr>
<th>Inclusion Criteria</th>
<th>Exclusion Criteria</th>
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<tbody>
<tr>
<td>Adults with a Learning Disability who were able and willing to attend the ‘Animal Research Project’ at the ARC; &gt;18 years old.</td>
<td>Adults with a Learning Disability who had already been involved in caring for animals activities at the ARC.</td>
</tr>
<tr>
<td>Carers of Adults with a Learning Disability who attended the ‘Animal Research Project’ at the ARC; paid or unpaid.</td>
<td>Adults with a Learning Disability who were &lt;18 years old.</td>
</tr>
<tr>
<td>Staff who provided supervision for Adults with a Learning Disability who were involved in the study.</td>
<td>Staff who did not provide supervision for Adults with a Learning Disability who were involved in the study.</td>
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</tbody>
</table>
Table 3 All participants interviewed Pre-Week 1, Week 2 and Week 20

<table>
<thead>
<tr>
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<th>Pre- Week 1</th>
<th>Week 20</th>
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<tbody>
<tr>
<td>Adults with a Learning Disability (n=18)</td>
<td>Adults with a Learning Disability (n=18)</td>
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<tr>
<td>Carers (n=17)</td>
<td>Carers (n=16)</td>
<td></td>
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<tr>
<td>Staff (Week 2)</td>
<td>Staff (n= 2)</td>
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2.3 Timeline of Project for all Participants

Adults with a Learning Disability who participated in the Animal Research Project

Prior to Week 1:
Adults with a Learning Disability who had agreed to take part were interviewed prior to Week 1 of caring for the animals using the interview guide specifically designed by the authors in conjunction with a Speech and Language Therapist.

Weeks 1 – 20:
Adults with a Learning Disability who chose to participate carried out assigned activities with the animals at each daily session supervised by the staff who were also involved in the research.

Week 20:
All the Adults with a Learning Disability were interviewed in Week 20 using an interview guide similar to and based on the one used in pre-Week 1.

Carers of Adults with a Learning Disability who participated in the Animal Research Project
The carers were asked to take part in two interviews, the first prior to Week 1 and another in Week 20. The interviews took place in a location of the carer’s choosing which was predominantly in their own homes.
Staff who worked with Adults with a Learning Disability as they cared for the Animals at the ARC

Staff were interviewed at two points, Week 2 and at Week 20, using the staff interview guide which sought their observations on the group at the outset of the research and at its conclusion. They were interviewed on Week 2 to enable them to become more familiar with the Adults with a Learning Disability who were participating in the research.

2.4 Interview Guides and Format

In the absence of any specific instruments designed to measure or quantify interactions between Adults with a Learning Disability and animals which were neither their pets, nor in many cases companion animals by definition, a semi-structured interview guide was devised (Appendix 5). This contained questions based around 6 of the 8 core quality of life domains identified in a report by The Special Interest Research Group of the International Association for the Scientific Study of Intellectual Disabilities (Schalock et al. 2002) (Appendix 6). The report, while stating that the main domains were the same for people with or without disabilities, also reported that some may vary to be appropriate to special needs. The core domains used in this study were those of emotional well-being, interpersonal relations, personal development, physical well-being, self-determination and social inclusion; it was determined that the inclusion of the domains of material well-being and rights would not be appropriate or fall within the context of our research remit.

The approach to interviewing was flexible in terms of its location, duration and the order of questions in an effort to place participants at their ease and facilitate the capture of a wide range of responses.

Pilot interviews were conducted with Adults with a Learning Disability who did not want to take part in the project but who agreed to participate in a trial interview in order to test the nature and content of questions; modifications were made accordingly.

2.5 Distress Protocol

A Distress Protocol was also drawn up by the authors of this study in case participants were affected by their involvement in the study in any way. The Distress
Protocol detailed how Adults with a Learning Disability would receive further support, should the need arise.

2.6 Disclosure
The Southern Health and Social Care Trust “Adult Safeguarding Alert Procedures” were adhered to during the research process.

2.7 Data Analysis
The interviews were recorded and transcribed verbatim and then verified by another member of the research team. The transcripts were also subsequently verified by an independent reader.

The next stage employed Burnard’s (1991) framework (Appendix 7) for thematic content analysis which involved listening to the tapes and reading the transcripts to identify key points made by the participants. Then through the process of colour-coding, these were placed into themes and sub-themes. To verify the key themes and sub-themes that were identified by the first reader, the second member of the research team examined a random selection of the transcripts and if differences of opinion emerged these were discussed and accord reached.

In order to maintain the anonymity of participants throughout the reporting of the study all names and places were anonymised.

3.0 Findings
3.1 Pre-Week 1 - Adults with a Learning Disability (ALD)

Findings from interviews
There were 9 questions in the interview proforma.
18 Adults with a Learning Disability were interviewed (15 males and 3 females).

Involvement in Physical Exercise
12 participants gave a positive response citing walking, going to the gym, skiing, golf and jogging as the main activities while 6 participants gave a negative response.
Previous experience of working with animals
11 of the 18 participants stated that they had not worked with animals before with the remainder who answered affirmatively stating that they had done so in a general farming background and had worked with sheep, hens, cows and horses.

Pets
8 participants stated that they currently have a pet while 8 participants stated that they had had a pet in the past but not now. 2 participants stated that they had never had a pet. The pets themselves were mainly dogs, some cats and goldfish.

Pet ownership
The majority of participants stated that currently or in the past the pet is or had been considered to be a family pet while only 5 participants stated that currently or in the past the pet had been considered solely theirs.

Feelings towards pets and animals
The majority of participants expressed positive responses in this area in variously stating that their or the family pet provided them with a range of favourable interactions - “I treat it [his dog] well and he comes into my life and my heart and stuff” (Danny) … “she’s [his dog] always there for me when I’m very lonely” (Drew) … “I felt really safe when I was with him [her deceased dog]” (Ruby).

Provision of companionship and friendship by dogs
Some participants outlined the positive aspects of companionship and friendship they associated with dogs - “It’s just some days when I’m down and some days when I’m feeling good or some days when I’m feeling bad, you know the oul dog’s been everywhere with me. It’s been through the thick and thin. Some would say the rough with the smooth. You know, the dog’s been with me all the way. They don’t talk back … just go everywhere. They’re there for you if you just grab the dog and away you go, you know. They’re company” (Alex) … “I was very close to it” … [it was a] “friend” (Tony).

One participant indicated that he loved the pet and felt happy with it
“I love him so much” (Danny).
Some pets were considered to be a family member
[The dog was] “part of the family” (Terry).

Feelings of safety and relaxation associated with a pet
“I felt really safe when I was with him” (Ruby) … [the dogs] “relaxed” [him] (William).

Negative or no feelings towards dogs
1 participant indicated that he was scared or nervous of the family dog because it had “nipped” him (Jackie) while 2 participants stated that they had no feelings towards the family pet.

Nervousness in relation to animals
10 participants stated that they were nervous about the animals with the majority citing the possibility of working with snakes in the ARC as the reason for their unease - “I’d be unsure about snakes” … “They’re slimy” (Darren). Other named animals occasioning nervousness among participants were small dogs, reptiles, birds and goats.
8 participants said they were not nervous about the animals.

Group-work, working alone or both - ALD participants’ preferences
A clear majority of participants expressed a preference for working both as a member of a group and also alone - “There’s times I like to be on my own and times I like to be with the group” (Chris) while the remainder of the group, with the exception of 1 participant, stated that they preferred to work only in a group - “I like somebody else with me. A group” (Tony) … “If I don’t know what I’m doing I’d rather work with a group”[But otherwise you would prefer to work alone?] “Yes” (Jackie). A single participant stated - “I probably prefer to work on my own” (Terry).

Importance of group-work
All 18 participants deemed working in a group when working with animals to be important with responses falling broadly into four categories:
Teamwork and Help
Many participants tendered responses which highlighted the importance of teamwork and the mutual benefit of helping in a group situation - “Sometimes when you ask
somebody they can help you out” (Drew) … “Yes. And then you find out people’s needs, different needs and you can help them” (Reagan).

Safety
A substantial number of participants also referred to the safety aspects addressed by working along with others - “Because if you’re left on your own you don’t know what you’re doing. You could get it wrong. Something could happen to you” (Jackie) and “Yes. I think working in a group is much safer for the animals as well” (Ruby).

Speed in completing tasks
Participants outlined the advantages afforded by group-work in terms of the speed of performing tasks - “You’d get things done quicker and you know what everybody’s doing” (Terry).

Social aspects of group-work.
Some of the social aspects of group-work were stated - “Well, everybody knows that they mix together and become friends and all” (Ashley).

Feelings towards the research project
17 participants were positive about being involved in the project stating - “I think I would do alright” (Alex) … “I’m okay about it” (Chris) … “I feel okay” (William) … “I would be happy enough” (Leslie) … “I’m positive” (Tony) while 1 person expressed reservations about being involved in the project in stating that they were “not okay” with it (Morgan).

Discussion of these findings in the context of the literature will take place in the “Discussion” section below.

3.2 Week 20 - Adults with a Learning Disability (ALD)

Findings from interviews with Adults with a Learning Disability
There were 36 questions in the interview proforma
18 Adults with a Learning Disability were interviewed
Favourite animal(s) and why?
Named dogs and dogs in general were the favourite animals among 15 participants - “They all seemed friendly” (William) and “I come close to Coco” … “I liked being friendly with him and getting to know him and just getting him to wag his tail at me. It was so good” … “I felt really good, like” (Danny).
Lucky the goat was the favourite animal of 3 participants - “when I started it was on bottles. I was holding it” … “I just got attached to it from the start” (Chris).
The donkeys were the favourite animal of 2 participants and characterised as being “friendly” (Nicky) and “nice to look at” (Jackie).
The rabbits, pigs, cats and pheasants were each designated a favourite by 1 participant.
5 participants stated that they liked all the animals. (Ashley, Leslie, Terry, William and Jo).

Least favourite animal(s) and why?
The pigs were designated least favourite animal by 3 participants - “Not a nice smell off them” (Tony).
The sheep were designated least favourite animal by 2 participants.
The donkeys, dogs, birds, cats, ducks and pheasants were each designated least favourite animal by 1 - “I don’t like things flying around my head” (Darren).
7 participants said they had no specific or particular dislikes among the animals.

ALD participants’ feelings towards the completion of the project
10 participants expressed feelings of sadness - “It makes me sad because I don’t want to leave the dog, Coco, because I was so close to him” (Danny) … “I’m kind of really sad about it but at the same time I enjoyed every bit of it” (Ruby).
2 participants stated that they were “disappointed” - [I’m] “Disappointed that it’s not going to continue” (Nicky).
8 participants indicated they would “miss” something - “I feel really sad because I’m gonna miss all the people and I’ll miss all the animals” (Ruby) … “I’m gonna miss the place” (Drew) … “I’d miss Coco, Buddy and Tiny [dogs]” … “They’re very good to me, they are” (Jo) … “I’ll miss cleaning out the dogs and cats and all and working alongside them” [Why?] “Because I’m close friends with the dogs and cats” (Ashley).
5 participants expressed a desire to continue with the project - “I would have liked to have continued” (William).

2 participants stated that they would miss the company - “Like I met people too and I socialised with people” (Terry) … “I just like being outside and that … meeting different people” (William).

4 stated they had no negative feelings on the matter or that it was “ok” - “If something else comes up it’s nice to try something different” (Ashley) … “it was just a change from working down in the Hort Centre” (Tony).

The difference between caring for pets and caring for animals in the ARC
8 participants recognised the existence of practical differences between pets and animals in the ARC - “the one at home gets to run about the house while the ones here are in their pens” (Chris) … “You can’t take them home” (Reagan) … “You have more animals to look after at the ARC and you’ve less to do at home” (Leslie).

11 participants stated that there was no difference in their feelings about looking after their pet and animals in the ARC - “I think they’re exactly the same” (Ruby).

5 participants stated that there was a difference in how they felt about pets and animals in the ARC with all but 1 stating that they felt closer to a pet - “When you have pets at home it makes them part of the family and also if you’re raised on a farm they can become part of the family so if animals get sick or die you miss them” … “You wouldn’t miss an ARC animal that died so much” (Drew).

ALD participants’ reflections on how they felt on the first day of the research project
10 participants made favourable and positive comments about their feelings on the first day with the animals on the project - “I was loving it” (Alex) … “I felt happy and confident to know what I was doing” (Leslie) … “Just looking forward to it” (Nicky).

8 participants stated that they were nervous on the first day of the project with some citing the animals as the source of their unease - “A wee bit nervous” … “I’d never seen animals like that before … pigs” … “It was my first time” (Darren) … “I think I was quite nervous on the first day because I didn’t know any of the animals and then I was like ‘What kind of animals am I gonna see?’ ” (Ruby). Others were nervous about
who they would work with - “Meeting new people and stuff” (Ryan) … “I was nervous that I wasn’t going to meet any new friends” (Danny).

3 of the 8 also stated that they had since changed their view and were now no longer uneasy about the animals or group members - “I got to know the animals and everybody and I got to meet new friends and all and then when I liked them I felt more comfortable” (Ruby) … “I just got used to it” (Chris) … “I felt really good” … “I had changed because I had got to meet a dog and it was so close. It just felt good” (Danny).

1 participant (Drew) stated that he was still a little nervous of the animals after 20 weeks on the project.

**ALD participants’ views on the importance of group-work when working with animals**

16 participants felt that working in a group was important when working with animals citing 4 main areas where this was evident:

**Teamwork**

The importance of teamwork was mentioned in the vast majority of responses - “Without teamwork you can do nothing” … “Teamwork is very good in the group” (Drew) … “everybody kept each other right” (Alex) … “Sometimes it’s important to work in a group” … “When you’ve lots of work to do, you need to be working as a group” … “Because it makes it easier” (Jackie).

**Sharing knowledge**

Sharing knowledge was also cited by participants - “Yes, because sometimes people just don’t know what they’re doing so it’s better to give them advice on what to do” … “I found it was good to work in a group.”… “And sometimes I don’t know [so] I would ask” (Terry).

**Working faster**

Participant responses also covered the specific advantage that teamwork brought in the speedier completion of tasks - “Oh aye, because if there’s maybe two or three doing it, it gets read up quicker” (Ashley).

**Greater safety**

2 participants stated the importance of safety provided by group-work settings for animals and participants alike - “there’s more people to help in your group if the
animals try to run off there’s people there to help” (Nicky) and “Just in case you had an accident or something happened you” (Tony).

Feelings of ALD participants when with the animals
15 participants described in positive terms how they felt when with the animals using adjectives such as - “alright” (Darren), “good” (William), “amazing” (Ruby), “brilliant” (Leslie), and “happy” (Drew). Many participants spoke of the close bonds they had developed with the animals, mainly, but not exclusively, the dogs, over twenty weeks - “I’m just happier here” … “It’s probably that I enjoy it so much, being with the animals” (Chris) … “When you work with animals they become your friend and in the end you’re upset to say goodbye to them. It’s hard” (Drew) … “every time I look at a dog or something and the dog barks at me and the tail’s wagging and then I know it’s trying to tell me something. I know by the way it goes it’s trying to tell me something” (Ruby) … “I liked being friendly with him and getting to know him and just getting him to wag his tail at me. It was so good” … “I felt really good, like” (Danny) … “I like helping them [the animals] and looking after them and make sure they’re well looked after and nobody’s abusing them” (Leslie).

2 participants reported negative feelings concerning the fish and dogs respectively but both in describing their nervousness quantified it with the descriptor “wee bit” (Darren & Jackie).

1 participant felt nervous when working with the animals but now felt “okay” with them (Morgan).

There were some references to the animals as being “friends” and “friendly” (Danny, Drew, Darren, Reagan and Ashley).

Views of ALD participants on the animals after having taken part in the project
11 participants stated that their views on animals in the ARC had not changed in any way during the course of the project - “No I haven’t … I just like them all” (Terry) … “No. It’s the same [as] at the start” (Leslie).
Views of ALD participants on animals outside the ARC after having taken part in the project
5 respondents offered a range of positive responses to this question - “Yeah. I would look after them” (Reagan) ... “I like all animals. Those outside and those in my house. So when you saw an abandoned animal you could take it home. Whether it’s a dog or cat. You take it home and you just keep it” [Would you always have done that or would you do it more because you’ve worked with animals here?] “Yes. Exactly” (Drew; nodding to indicate the latter).

ALD participants’ reactions to the death of an animal on the research project and carer’s observations of participants’ reactions
5 participants expressed their sadness at the death of Barney, a St Bernard dog - “He was just a big likeable dog” ... “Everybody was a bit down” (Tony) ... “I was sad not to see it again, like” (Alex) ... “I wasn’t too happy” (Chris).
6 carers stated that Barney’s death had a negative effect on ALD participants - “The only problem I saw with it which is one that nobody can sort out; they had a big dog there and it died. Well for weeks and weeks that’s all you heard about, the dog dying” (Danny’s Carer) ... “He was just sad when the dog died.” ... “He had got very attached to that dog. He had indeed. He would tell us every day when he came home about Barney” (Darren’s Carer) ... “Whenever Barney passed away he was pretty upset about that” (Jo’s Carer).

Feelings of ALD participants towards the animals at the conclusion of the research project
3 participants who were initially nervous of dogs stated that there was a positive change in how they now felt. One identified a change in how he felt around them - “It hasn’t really changed” [but he now felt] “more confident” ... “about how used to them I was beginning to get” ... “about being surrounded” [about] “being with them” (Jackie).
Another stated that the situation was okay because the dog that induced nervousness because - “He was pulling me” (Morgan) - now no longer did so.
A third participant who originally expressed nervousness around dogs stated that - “Since I was down there walking the dogs and touching the dogs” [he now felt] “good” [with them] (Bernie).
14 participants said that they were not nervous of the animals and felt the same as they did at the beginning of the project - “No. It’s the same [as] at the start” (Leslie). 2 participants who indicated that they were originally nervous of birds and goats stated that they still felt the same.

**Working with animals in the future**

17 participants indicated a desire to work with the animals again - “I enjoy it and it’s good fun” (Leslie) … “Because I miss working with animals at the ARC and all” (Ryan) … “I just got used to it and I enjoy it” (Chris) … “Because I love doing it” (Bernie). 1 respondent was undecided in stating - “Maybe” (Jackie).

**Trying new activities**

All 18 participants indicated that they would be willing to try another new activity with some stating that it would give them - “something to do” (William) … “something new” (Chris) … “something different” (Terry) … “something to try” (Tony). Others stated - “You have to learn” (Darren) … “Because it’s a new activity and you should give it a go to see if you like it or not” [and] “I would like more experience” (Ruby).

**The value of caring for animals for ALD participants**

All 18 respondents indicated that looking after animals was worth doing and tendered a range of reasons to support this:

**Educational value of working with the animals**

6 participants recognised the value of learning during the project - “it was worth learning, because everybody has to learn different things in different areas” (Jackie) … “It was very good. It learned us things, so it did” (Ashley) … “Because you get to know animals and you get to know what needs to be done with them” (Terry).

**The welfare of the animals**

4 participants saw a value in the work in relation to the welfare of the animals - “Because it needs done” (Tony) … “It was worth doing to keep the animals happy” (Ruby) … “Because nobody else cares about these things and us people we do care” (Alex).
Value and attraction of the work for participants
7 participants saw a value and attraction in the work itself - “It was worth it because you got to work with all the animals. You got to do different jobs. Cleaning them out and feeding them” (Leslie) … “I felt good because week to week I got different jobs, different models to do” (Danny).

ALD participants’ views on working independently
17 participants stated that they had developed the ability to work more independently. Some reported a modest change - “I can do it better now” [Why is that?] “A wee bit more confidence. Not a whole lot but a wee bit” (Jackie) … “Yes” … “Well I know how to clean out their pens and all. Wash them and brush them if they needed that done and walking all-round the compound” [Independently?] “Yes”… “It’s the saying, taking wee steps” (Ashley).
Other participants stated that they felt a much greater sense of independence in a work context through involvement in the research project - “I think I do have more independence in myself now where I can go, ‘That needs done there, that needs done there and make sure that’s done,’ I’m saying that to other people now that I have the confidence that I’m not depending on everybody else to do stuff for me” (Ruby) … “Yes.” … “It gives me more courage” [It gives you more courage to work independently?] “Yes.” (William) … “Because you’ve got the confidence now to do them [work related tasks] here, in the past you mightn’t have the confidence” [Where do you get that confidence?] “People around you and the staff” … “They encourage you to do it” [And if you get it wrong?] “They would come back and tell you what you did wrong and then you can improve on that” (Leslie).
1 participant was negative in response to the question and reiterated their desire to work solely as part of a group - “No” [You still like to work with the group?] “Yes” (Morgan).

ALD participants’ views on expressing opinions whilst working in the ARC
12 participants stated that they did not express an opinion in relation to the care of animals - [Did you have any opinion?] “No. The way it was being done was right” (Chris) … “Staff 2 explained what to do before we started. He told you what to do and you
would just go and do it” [Did that annoy you?] “No. Not at all” … “It just doesn’t bother me” (Leslie).

2 participants stated that they had expressed an opinion in relation to the care of animals. One stated that that had made her - “Happy because you were included” (Reagan) while the other felt “Okay” as a result of tendering an opinion (Ryan).

3 participants were unsure of whether or not they had expressed an opinion - “I probably was asked. I can’t remember” (Alex).

ALD participants’ views on the value of their opinions

13 participants stated their belief that their opinion on the care of the animals would have been valued - “I’d say they would. Yeah” (Chris).

4 were of the opinion that their views may not always be valued - “Some people might have and some people might not have” … “It depends. They might not have agreed with my opinion but it’s just my opinion” (Leslie) … “No” … “They probably don’t place a value on my opinion” (Jackie).

ALD participants’ views on the value of the opinions of others

15 respondents stated that they valued the opinion of others in relation to the care of animals - “Yes. It was important to listen to everyone” (Ruby) … “Yes. That’s like good teamwork” (Ryan).

1 participant gave a qualified response - “It really depends what it is” (Chris).

Tasks performed by ALD participants

All 18 participants stated that they had been involved in a range of activities over the course of 20 weeks on the project - “One day we would do the cleaning then the next day we’d get to do the feeding. Everybody took turns” (Alex) … “Well, one week I was working with the farm animals, and another I was working with the dogs” (William).

Favourite tasks

12 participants tendered dog-related tasks as their favourite - “I loved the dogs. Washing the bowls and taking them for a walk and that” (Bernie)… “I like the dogs.
Because they come so closely to you” … “Feeding them and cleaning out their pens.” … “And working with them, and walking them. It made me feel so good” (Danny).

7 of the 12 participants who stated that dog-related tasks were their favourites cited walking the dogs as their favourite activity with the remaining 5 participants stating that they viewed feeding dogs and cleaning out their pens as their favourite activities. 2 participants stated that they considered feeding the animals to be their favourite activity while 1 considered cleaning out the animals’ pens to be the best task. One other cited both cleaning and feeding the animals as their favourite tasks.

3 participants stated that they liked doing everything, liked all the animals and liked being around all the animals - “I liked being around all of them” (Ruby) … “I liked them all” (Ashley) … “I just liked doing everything” (Terry).

Least favourite tasks
6 participants stated that they liked cleaning the least - “Brushing everywhere out” (Alex) … “Cleaning the donkey’s poo up” (Ryan). 7 participants cited various animals themselves and tasks connected with them as their least favourite chores - “The ducks” … “They weren’t very friendly, whenever they came out” (Danny) … “The dogs … when they chase you” (Reagan) … “The fish.” … “You had to clean them out” [With all the fish going round?] “Yeah” [Does that make you nervous?] “A wee bit. Yeah” (Darren).

2 participants stated that they had no dislikes in relation to the tasks they performed in the research project. One stated that all tasks were the same (William) while the other stated that “They were all okay” (Nicky).

Activities that ALD participants would have liked to have done
12 participants gave a negative response. 5 participants gave a variety of answers. One regretted not having more time with the dogs - “I should have done more of the dogs as well” (Danny) while another participant stated his disappointment at not having worked with the turkeys which had been killed by a fox shortly before the project began (Tony). A third participant expressed regret at not taking some of the hens’ eggs home (Alex).

1 participant stated that he could not think of anything.
Thoughts on working outdoors
All 18 participants indicated that they had enjoyed working outdoors - “Yeah. I thoroughly enjoyed it” (Danny).

Making new friends
15 participants answered affirmatively with 10 of that number speaking positively about their feelings in relation to their new friends … “I feel like I’m really happy that I’ve met new friends and it’s good experience to have good craic with them and spend time with them and just have a bit of fun with them” (Ruby) … “In the twenty weeks group I made more new friends as I went along” … “Yes. Happy enough. Yes” (Ashley).

3 participants indicated that they had not made any new friends with one stating that he - “Only met old friends” (Drew) while another said - “I just talk to whoever talks to me. But if they don’t talk that’s ok. That’s their choice” (Jackie).

Working in groups or alone or both - ALD participants’ preferences
7 participants stated that they preferred to work in a group - “There was others around you” … “Just to talk to.” [For the company?] “Yes” (William) … “Because I would find it difficult to work on my own” (Ruby).

11 participants expressed a preference for working in a group setting as well as alone - “I had to clear out the pen one day [alone].” [He felt] “Alright” about that. [He felt] “okay” about working on his own but preferred to work in a group because “You can talk to them” (Darren).

No one expressed an absolute preference for solely working alone.

Working better now with others? - ALD participants’ views
16 participants replied affirmatively and in the main cited a mixture of social and practical reasons for their responses - “Yes. More now since I’ve did it” (Reagan) … “Because when I work in a group I feel more like it’s more better because then I’m not on my own working with them and I can have all the people around me to help me along” (Ruby) … “Yeah” … “Because you’re with them all the time and you get used to the way they act round you” [and you can] “Get along with them better” (Leslie) … “I love to help people out” [Better now than 20 weeks ago?] “Yes” (Jo).
2 participants indicated that they did not feel that they could work better with others after taking part in the project with one of them stating - “I’d prefer to work on my own” (Terry)

**ALD participants’ views of control over what they did in the study**

9 participants responded affirmatively to the question stating that they felt that they had varying degrees of control over what they did in the project. Some felt that they had little control - “Some. A wee bit of control. Not a whole lot because the members of staff had some of the control of what you do or don’t do” (Jackie). Others felt that they had more control - “Sometimes I felt that I could gain control” [Could you give me an example?] “The times that people were not sure of something and I would help them out” (Nicky) … “I felt that I could control what I was doing and felt more comfortable in myself like going ‘Oh, I’m gonna do this and do that’ ” (Ruby).

6 participants felt that they had no control and were basically carrying out the instructions of others - “I was doing what I was told to do” (Bernie) … “There is always people who are in charge so we had to do what they say” (Drew) … “I just done what I was told to do and got on with it. No questions asked” (Leslie).

1 participant stated that the staff and himself shared control - “I would say that I’m doing something or I was told. It works both ways” (Chris).

**ALD participants’ views of control over what they do in their lives.**

10 participants stated that they could, to varying degrees, act independently in their lives in terms of making decisions. Some believed that they could control certain areas of their lives - “I would go down the town … my Granda and my auntie and uncle with me but they just let me go and do what I want to do. Independent. Myself” (Ruby) … “I go out to Mid-Ulster shopping centre. I would walk around on my own” (Danny) … “I take care of all of my life independently. Even though I’ve got Eva to support me too. As well as my family to support me” (Ashley).

4 participants stated that they had little or no control over what they could independently do in their lives in general.

1 respondent stated their preference for others to make decisions for them - [Do you depend on other people to show you what to do or to tell you what to do?] “Somebody else. I prefer” (Morgan).
Work or jobs ALD participants would like to do in the future

5 participants indicated that they would like to work with animals - “Well, in the future I’d like to work on my own farm, like a dog breeder. You could breed dogs” (Drew) … “I’d like to work here” [the ARC] (Jo).

2 participants indicated that they would like to work with people with special educational needs - “I would love to work with people with special needs … I’d love that” (Reagan).

6 other single responses included a desire to become a pilot, an architect, a photographer, a worker in a hotel kitchen, a bricklayer and an actress.

7 participants expressed general life desires and aspirations - “Anything. Do my driving test and stuff. And get a car and all.” … “Hard work and get plenty of money” (Ryan) … “do outside work like doing, brushing up things and all” (Bernie) … “Play better at golf” (Darren).

1 participant did not express any view.

How to realise those goals

8 participants tendered a view on how they would go about realising their goals and desires. Responses ranged from - “I don’t know. I could ask about how to do that” (Chris) and “Well, try and do things for yourself” (William) to “You’d have to join a college. An art college for learning the skills” (Ashley) and “I’d have to get off my ass and do it” (Reagan).

The chances of succeeding

4 participants had a negative view of their prospects of achieving their aims or goals offering a range of reasons for their responses - “Just too much managing” (Alex) … “I just think that it wouldn’t come true” (Ruby).

6 participants had a positive view of their prospects of achieving their aim or goals - “Yeah. If I put my mind to it. Yes. But my mind doesn’t be settled for too long” (Reagan) … [Do you ever think that would happen?] “It could do yeah if I pushed hard enough for it” (Leslie)

3 participants did not know if they could achieve their aims or goals - “It’s hard knowing” (Ashley).
Difference between caring for a pet and caring for animals in the ARC

8 participants recognised the existence of practical differences between looking after pets and looking after animals in the ARC - “the one at home gets to run about the house while the ones here are in their pens” (Chris) … “You can’t take them home” (Reagan) … “You have more animals to look after at the ARC and you’ve less to do at home” (Leslie).

11 participants stated that there would be no difference in their feelings in terms of how they felt about looking after both - “I think they’re exactly the same” (Ruby).

5 respondents recognised a difference in how they would feel about pets and animals in the ARC - “When you have pets at home it makes them part of the family and also if you’re raised on a farm they can become part of the family so if animals get sick or die you miss them” … “You wouldn’t miss an ARC animal that died so much” (Drew).

What ALD participants said they had learned

13 participants said that they had learned how to feed the animals - “I’ve learned how to get more like involved in things and how to get to feed them and clean their pens out. I got to know them” (Ruby) … “The food. I filled out the food, so I did” … “I knew what bucket to lift and what animals it was for by looking at it” … “I just got used to handling them. Just got closer to them” (Chris).

10 participants said that they had learned skills and techniques associated with the welfare of the animals - “Working with the animals, it’s very cool” … “I learned that they’re very good and you have to look after them” (Drew) … “How to look after them if they weren’t well. If they were ill for to call a vet and all” (Ashley) … “Learn how to clean out the pens is work I’ve never done before” (Ruby).

Participants also stated that they had learned - “Working with other people” (Bernie) and that animals are - “just like ourselves. They have their good and bad days. They have feelings and all. The only thing is they can’t talk to tell us how they feel” (Ashley).

1 participant gave a negative answer.
Using that knowledge elsewhere

11 participants answered positively - “If I was somewhere and told to feed some animals I’d know what to do. What amount to put in” (Chris) … “Yes. I’ll use what I’ve learned to help get on with other animals” (Leslie) … “Aye. If I ever have a farm” (Alex).

5 participants did not provide a response.
1 participant said that they didn’t know.

Importance of looking after animals

All 17 participants stated that looking after the animals was worthwhile - “You have to look after them. Feed them, if you don’t feed them, they die” (Darren) … “It’s like looking after a child. If you didn’t feed a child it would be neglected and if you didn’t feed an animal it would be neglected” (Reagan) … “If you don’t feed them and give them fresh water then they’re drinking the same dirty water and not getting fed so that’s treating them unfairly” (Leslie) … “To make sure they’re healthy and clean and fed” (Tony).

The effects of working with animals on ALD participants

17 participants in total responded to this question. The 13 respondents who answered positively covered a wide range of possible effects felt as a result of their working with the animals:

Happiness

There were many responses which outlined happiness, enjoyment and improvement in the participants’ well-being, for example - “I feel more happier when I’m with animals and I feel like I’m more myself when I’m around them” (Ruby) … “I just feel better about myself” (Terry) … “I feel more closer to animals … than being around, you know, with people. I feel more closer. I can talk to them. Feel more comfortable” (Ruby).

Increase in Confidence

Positive responses were tendered in relation to working with the animals with two participants indicating beneficial effects in the form of having “More confidence” (Reagan & Tony). A third participant reported that he “felt more confident…about how used to them I was beginning to get … about being surrounded” (Jackie). Another
participant stated that working with the animals “gives me more courage” [to work independently] (William).

Relaxing
2 participants reported calming and relaxing effects linked to working with animals - “It calms you down, so it does” (William).

New experience
Participants also cited the acquisition of experience - “I just got a wee bit of experience here and I like the animals” (Tony) and “it makes you feel a wee bit better”… “Learning different things” (Alex) as a further positive effect of working with the animals.

One participant indicated that working with the animals “keeps me busy and active” (Ashley).

Another, whilst tendering a negative response to the question concerning the effects, if any, of working with the animals, had stated earlier, in a response to the question - ‘How did you feel when you were with the animals?’ - “I just like looking after them” (Nicky).

Another participant, though stating - “No. Not at all” in response to the same question, had previously stated when asked – ‘How does it [looking after the animals] make you feel as a person?’ - “Good” (Leslie).

The final participant tendering a negative answer in relation to the possible effects of working with the animals had also earlier stated, in a response to the question - ‘Would you like to work with animals again?’ - “Yes.” … “Because I love doing it” (Bernie).

Discussion of these findings in the context of the literature will take place in the “Discussion” section of this report.

3.3 Pre-Week 1 – Carers
There was a 94.4% take-up rate from carers for one to one interviews which provided every carer involved with an opportunity to provide full and detailed feedback on an ALD participant on a more focused and confidential basis.

Findings from interviews
There were 5 questions in the interview proforma
17 carers were interviewed -1 carer was unable to be interviewed due to illness.

Attitude of Adults with a Learning Disability towards the research project - Carers' perspectives.
All but one of the carers stated that the participants had a positive attitude towards the project with many stating that the participants were fully engaged with the prospect of being involved in the animal research study and enthusiastic about it – “he would do it wholeheartedly … he’s keen and eager to participate” (William’s Carer) … “She’s very excited. She can’t wait” (Ruby’s Carer).
1 carer stated that the attitude of the participant may be negative and expressed misgivings in stating that the participant - [he] “would be a bit sceptical about it” … “Because he’s not used to it … not used to the animals”(Leslie’s Carer).

Feelings of Adults with a Learning Disability towards animals - Carers’ perspectives.
The vast majority of carers stated that the participants had positive feelings towards animals with some stating that participants loved animals - “He loves working with animals. Dogs especially he loves” (Drew’s Carer).
Some carers expressed negativity in relation to participants’ feelings suggesting possible nervousness and fear among them concerning certain animals - “He’s afraid of animals, especially dogs. He doesn’t like cats either because they can jump up” (Jackie’s Carer) … “In the past. Yes. He would have been quite afraid of cows, pigs or something like that there. It’ll be interesting to see what way he goes” (Jo’s Carer).

The preferences of Adults with a Learning Disability towards group-work and working alone - Carers’ perspectives.
Half of the carers stated that participants would prefer to work in a group setting - “he’s used to working with groups” (Darren’s Carer) and “Terry works well as a member of a team” (Terry’s Carer).
A small number of carers thought that participants preferred to engage in both solo and group-work - “William can work as part of a group but can also work on his own initiative” (William’s Carer).
A small number were also of the opinion that participants would prefer to work alone - “He’d be very individual. I think he’d prefer to work on his own” (Leslie’s Carer).
1 carer did not know whether the participant would prefer to work in a group or alone or both.

**Adults with a Learning Disability and decision making - Carers’ perspectives**
All carers stated that participants make decisions for themselves but differed in their assessments of the scope of those decisions and the degree of help required to make them.
7 of that number stated that the participants make almost every decision for themselves - “He would be very independent … he would be very much able to take ownership and different things” (Ashley’s Carer).
8 carers stated that the participants made decisions with certain reservations - “I would be confident that he could take decisions for himself on most things. There are certainly other areas where he would need support” (Darren’s Carer).
A small number of carers had a more negative view of participants’ ability to make decisions for themselves – “He’ll not take a decision on his own without getting it sanctioned. As such even if he thinks of something he will look reassurance that that’s the right one … or wrong one” (Jo’s Carer).

**Adults with a Learning Disability and physical exercise - Carers’ perspectives.**
The majority of carers stated that the participant exercised while a small number said they did not.

**Discussion of these findings in the context of the literature will take place in the discussion section below**

3.4 **Week 20 - Carers**

**Findings from interviews**
There were 19 questions in the interview proforma.
16 carers were interviewed as 2 were unavailable.
Participants’ attitude towards taking part in the research project - Carers’ perspectives.

10 carers gave positive accounts of the participants’ attitude towards taking part in the animal research project before it started - “he was really keen” (Chris’s Carer) … “She was really excited about the animals and all” (Reagan’s Carer) … “He was looking forward to it and actually said that he was looking forward to it” (Nicky’s Carer) … “It was something new and he was interested. He definitely was interested” (Tony’s Carer).

5 carers stated that the participants were nervous, in varying degrees, at the prospect of joining the animal research project - “I think he was maybe just a wee bit apprehensive just about going in somewhere new, new people, not knowing exactly what it was about but was prepared to give it a go” (William’s Carer) … “She was probably very nervous” [What would she have been nervous about?] “Probably the animals” [Any particular animal she would have been nervous about?] “Probably dogs” (Morgan’s Carer).

Changes in participants’ feelings towards taking part in the research project - Carers’ perspectives.

15 carers stated that participants maintained or displayed a greater level of enthusiasm throughout the course of the research project - “As the time went on he got more enthusiastic” (Chris’s Carer) … “I think she was more positive. Yes. She looked forward to going Monday morning. Reagan wouldn’t have bothered if she was going to work placement she wouldn’t have went. Reagan is up and has her lunch made the night before. So I would say that she would be more positive” (Reagan’s Carer) … “Yes. She loved it. Looked forward to Monday morning coming in she talked about it all week” (Ruby’s Carer).

2 carers stated that any nervousness initially felt by the participant soon dissipated - [And did that (his nervousness) change as the project went on?] “Oh, definitely” [And did he talk to you about that?] “Yes. He talks about the animals all the time. He loved looking after the animals” (Leslie’s Carer).
Carers’ perspectives of changes in attitudes of Adults with a Learning Disability towards working with the animals

6 carers stated that participants had manifested changes in their attitude and behaviour in being more confident and comfortable around animals - “firstly getting out, meeting people. It gave him more confidence around animals. The daughter has a dog and a cat and now he has no problem with it where before he was very nervous and touchy with it … ‘How are you?’ … but the hand’s a foot away from it. Now he’ll sit and pet it” [And he was nervous at the start?] “Aye. He wouldn’t have done that before” (Darren’s Carer) … “He sort of grew into the environment and was very comfortable. Very comfortable around the animals which would have been a big thing for him for he had a fear of cattle and stuff like that. He wouldn’t have went into the same field; he wouldn’t have went into the same place as them” [And that has changed?] “That has changed. Big time. [So he would be more comfortable with animals?] He would be far more comfortable around animals than he ever was” … “His interaction with animals would have become stronger; at home with his own two wee dogs he’s got more closer to them so he would [And that’s something you would see?] He wouldn’t have had that before. He would have kept them at a wee bit of a distance but now he’ll hug them and he’ll talk to them” (Jo’s Carer) … “He said he has developed his confidence in working with the animals [And you have no evidence that that spills over into other areas of his life in any shape or form, that confidence?] Yes. I thought that he had become more chatty with the staff and other service-users whereas before he would have spent a lot of time in his room with his DVDs or games” (Nicky’s Carer)

Carers also cited various other positive aspects of participants’ behaviour - “He just couldn’t wait for me to get in to tell me all about it and about the dogs and the names of the dogs and whatever and the cats and all the animals there was… pigs” (Tony’s Carer) … “I think he enjoyed both. He said he enjoyed working with the people in it and the animals. So, I think he enjoyed the two” (Ashley’s Carer).

Adults with a Learning Disability - their feelings about the research project from the Carers’ perspectives

8 carers tendered positive responses - “Anything that William told me about it was positive, that he enjoyed it, he was relating well to people. He enjoyed it to the extent
actually that I was working with him actively, recently, looking at timetables because he wanted to go down and continue doing it, off his own bat and at his own cost … so obviously if he’s prepared to do that off his own bat, he’s getting something out of it that’s over and above” (William’s Carer)… “Just near the end she just talked a lot about Tiny. Washing the dog, taking it for walks, things like that, you know. It jumping up on her lap and things like that, you know” [And was she positive about that?] “Yes. She was actually laughing about it.” [And at one time she wouldn’t have?] “No. She would have been crying” (Morgan’s Carer).

Negative reactions from Adults with a Learning Disability - Carers’ perspectives
3 carers tendered responses containing elements of negativity. One indicated that the participant was “sad when the dog [Barney] died” (Darren’s Carer) while another “seemed to be a bit nervous with the goat sometimes”. A third carer stated that in relation to negative comments the participant had tendered - “None whatsoever, apart from one day she didn’t like the soup” [provided for lunch in the ARC] (Ruby’s Carer).

Carers’ perspectives of ALD participants’ expectations and experiences during the research project
8 carers expressed the belief that participants’ experiences matched their expectations of the project - “Oh, I think so. Yes. I think he really enjoyed it” … (Leslie’s Carer) … “Well what I understand is that William was down with people who liked animals, working with animals. That’s what he certainly expected when he went down and that’s what he achieved at the end. So, from that element, yes” (William’s Carer).
4 stated that it actually exceeded them - “I think it actually, to me; it worked out better for him” (Ryan’s Carer) … “I think it was. She actually thought it was better” (Ruby’s Carer)
2 carers gave responses which indicated that they could not answer the question definitively.
Carers’ perspectives of the impact of participation in the research project and participants learning to do something.

9 carers responded affirmatively and tendered a range of positive behaviours linked to participation:

**More confident**

“I think it did build her confidence. I’m not saying in any particular way but, yes, she was definitely really confident about herself at home. You know, talking about the dogs. I did this and I could do that, so certainly it boosted her confidence” (Ruby’s Carer) … “I would say that he has learned to be more confident with animals for a start anyway because he was always very nervous with dogs. If you stopped to talk with somebody who had a dog, he’d stand behind you. He would ask the dog how it is but he never petted it or anything, where now he would. And he’d talk about dogs and things like that” (Darren’s Carer).

**Taking responsibility**

“I think, whether it’s involved in that or not, from working with the animals and having the responsibility of that, he wanted to improve our garden. Whether there’s any relation or not, whereas before that he didn’t want to participate in anything and now he wants to take charge of the garden and take ownership. And take responsibility for plants and wants to purchase plants and looking after them and that; whereas beforehand he wouldn’t have been” (Nicky’s Carer) … “I think it was taking care of the animals, he thoroughly enjoyed that; he liked the responsibility of that” (Terry’s Carer).

**More patient**

“I think he has learned a wee bit more patience with animals because I could see him at home being more patient with our dog” (Leslie’s Carer).

**Helping out more**

“Well, probably in helping about the house. I’ve noticed now that he would take the brush out and brush the driveway probably things he was doing elsewhere” (Danny’s Carer).

5 carers stated either that they did not know or that the participant was the same.

**Carers’ perspectives on ALD participants working with animals in the future.**

14 carers stated that the participants would like to work with animals in the future - “Oh, definitely. Definitely. He’s definitely an animal person as you know from the dogs. I think it was really good for William to maybe get a bit of an experience of
other animals but as I said earlier the dogs would be the big thing” (William’s Carer) … “He said that he would” (Nicky’s Carer).

1 carer was not sure.

Carers’ perspectives on ALD participants and physical activity.
10 carers stated that participants took exercise in a variety of sports and pursuits.
6 carers stated that participants did not take any exercise.

ALD participants talking about walking the dogs - Carers’ perspectives
12 carers stated that the participants mentioned walking the dogs as part of the project.
1 carer gave a negative response to the question.
1 carer could not give a response to the question.

ALD participants’ views on walking dogs as a form of exercise - Carers’ perspectives
6 carers stated that the participants would see walking the dogs as a form of exercise.
4 carers stated that the participants would not recognise walking the dogs as a form of exercise.
3 carers were unsure whether or not participants would recognise walking the dogs as a form of exercise.

The views of ALD participants towards working with animals as part of a group - Carers’ perspectives
13 carers gave positive responses to the question - “He really enjoyed it and he seemed to get on well with everybody in the group. He said he was getting on well with everybody in the group and the animals and that” (Ashley’s Carer) … “Well. He definitely enjoyed that. Darren likes groups” (Darren’s Carer).
1 carer stated that they thought the participant would feel happier working on their own - “I think probably Leslie would be maybe happier working on his own with the animals. Yes. I think he’d like to be in control of when to feed them and that part” (Leslie’s Carer).
1 carer was unsure - “I don’t honestly know. He never really said” (Danny’s Carer).
ALD participants working alone - Carers’ perspectives

3 carers stated that the participants would have preferred to work alone with the animals - “Oh he would yeah. Most definitely” (Bernie’s Carer).
7 carers stated that the participants would not have preferred to work alone with the animals - “But what Chris likes is working in groups with people like himself and he’ll tell you that himself” (Chris’s Carer).
5 carers stated that the participants could work positively with the animals both alone and as part of a group - “William can be very sociable and integrate with people but part of me thinks that William’s quite happy with his own company as well” (William’s Carer).
1 carer stated that the participant could work with some people and not others - “What I would think now is there’s people Danny can work with and people he can’t” (Danny’s Carer).

Carers’ perspectives of ALD participants making new friends during the animal research study.

6 carers stated that the participants had made new friends during the course of the project
3 carers stated that the participant had not made any new friends during the course of the project
5 carers were unsure whether or not the participant had made new friends or not - “Well. He never mentioned any new friends” (Ashley’s Carer).
1 carer spoke of the development of an improved relationship between two participants who lived in the same house during the course of the research project - “although from Terry and himself going to the group on a Monday, their relationship has improved” … “since they’ve started going to Day-care, you know, their relationship has appeared more positive.” … “that’s been a positive influence, you know, they’re positive together” (Terry’s Carer).
5 carers stated that the new friend or friends were mentioned in a positive way - “Oh God. Yes. James. I heard a lot about James” [And that was positive?] “Oh yes. She was very positive about James. Just as a friend but” (Morgan’s Carer).
Carers’ perspectives of ALD participants’ decision-making.

10 carers stated that the participants take informed decisions largely for themselves - “I’m very clear with William that we’ll do what William wants to do and we’ll go where William wants to go” (William’s Carer) … “Yes. We would try and make him as much informed, and we give him as much information for him to make informed decisions” (Terry’s Carer) … “Yes.” …“He’s mainly more responsible for money issues” (Jo’s Carer) … “He would make decisions but he would ask your opinion before he makes them” (Ryan’s Carer).

2 carers stated that the participants make decisions sometimes - “Mostly just minor [decisions] He’s not able to do on major issues and all that there. He’s just very vulnerable that way” (Tony’s Carer) … “Well, sometimes. But sometimes she has to be sort of guided” (Ruby’s Carer).

1 carer stated that the participant does not really make decisions and was negative in terms of the consequences of decisions made by the participant - “Not really. No. The wrong ones. Yeah” (Chris’s Carer).

Carers’ perspectives of changes in ALD participants’ decision-making.

5 carers stated that they had observed a change or changes in how the participants viewed making decisions:

More confident

“Well she’s definitely more confident. Definitely working there for those twenty weeks, she’s more confident” (Ruby’s Carer) … “He seems to be more confident in making decisions. He’s a bit more forthcoming in chatting to staff about any issues that he has” (Nicky’s Carer).

More independent

“I have noticed him making decisions more independently, so I have, but he still will crave the ‘Have I made the right decision?’ Some decisions he makes on his own and goes on ahead; whether right or wrong. I don’t mind that because if you don’t make a mistake you’re not gonna learn anything. For the period of the programme he would have grown in confidence on it” (Jo’s Carer).

6 carers indicated that they had not observed a change or that the participants view of decision-making was the same.

4 carers either didn’t know or only stated that the participant makes decisions.
Carer's perspectives on the impact of working with animals on ALD participants

7 of the carers made a connection between the participants’ involvement in the animal research project and it having an impact upon the participant. Some deemed the participants to be, in some cases, more relaxed and calm as if undergoing a therapeutic experience:

Calm

“Well as I say, I did notice whenever he came home, now you’ll never get Danny completely down, but that really highness wasn’t there. He seemed more calm” (Danny’s Carer).

Impact on Moods

“I do think that her moods … she didn’t have one tantrum the whole time she was there” [In the twenty weeks?] “In the twenty weeks. I had no bad behaviour from her whatsoever” [And you would attribute that to being involved in the project?] “I would. I definitely would.” … “Yes. Because I think she loved it that much and working with the animals and all calmed her down that much that that’s what she focused on the whole week so nothing else annoyed her” (Ruby’s Carer) … “Very positive… I think he’s really enjoyed it and felt it was very therapeutic working with the animals” (Terry’s Carer).

“Well. Every time he came back he was always in better form. Good mood. That sort of way” [And you would have tied that to the animals in particular?] “Oh yes. Because he was all enthusiastic, chatting away. Telling you what was happening that day. What animals he was working with and all this. Before you’d really have to try to get Tony to interact with you and chat away a bit more” (Tony’s Carer) … “I’d noticed that his behaviour on a Monday, he was much more relaxed; he wasn’t as stressed or busying about. He was much more relaxed coming back from Day-care on Monday, from looking after the animals” (Terry’s Carer).

Impact of the research study on their behaviour towards animals outside the ARC

Other responses included recognition by two carers that the positive interaction with animals in the ARC may have transferred itself to participants’ behaviour towards animals in settings outside the ARC - “The experience that he would have had here [the ARC] was always a very positive one with the animals.” … “His interaction with animals would have become stronger; at home with his own two wee dogs he’s got more closer to them so he would” … ‘He wouldn’t have had that before. He would
have kept them at a wee bit of a distance but now he’ll hug them and he’ll talk to
them” (Jo’s Carer) … “Well I think she’s more … kind … she looks more after Billy [the
family dog] and that. She would be more protective of Billy than she would have”
(Reagan’s Carer).

**Work Experience**

For another participant the research project provided hands-on experience of a job
which they wished to do - “I think for Leslie farming is something that he’s always
wanted to do. Working with animals would be part of that and I think it just gives him
an insight into what is involved. Yes. And what to expect” (Leslie’s Carer).

**Improved Sleep**

One carer stated that the quality of a participant’s sleep had improved -
“I found he slept better. He did really” (Chris’s Carer).

**More Thoughtful and Understanding**

Another participant was deemed to be more aware of and caring towards animals
after involvement in the project - “Yes. I think it would have made him more
thoughtful and more understanding that animals need to be cared for as well as
people” (Chris’s Carer).

**Beneficial Effect upon Lifestyle**

Involvement in the research project was said to have had a positive and beneficial
effect upon another participant in terms of their lifestyle - “He was excited on a
Sunday night having to go to work. If he had no work he’d sit there until five or six in
the morning. You know. That’s just his life sitting up watching TV” … “Well I know he
really looked forward to it and he never ever slept in for it. He was always up,
dressed, washed” (Ryan’s Carer).

**Enjoyment**

For another carer positive benefits were also evident from the participant’s
involvement in the animal research project - “I know he enjoyed it and I know that he
was looking forward to it. And I think anything like that at all that enhances
somebody’s well-being it’s bound to have a positive impact on other things” (William’s
Carer).

**No Effect**

One carer stated that being on the project had no effect on the participant because
the latter - “just goes his own way” (Drew’s Carer).
Carers’ perspectives of the positive and negative effects of working with animals on ALD participants

All 16 carers stated that the participants had experienced positive effects through working with the animals in the ARC. No carer indicated that it had no effect or that it had a negative effect upon participants.

A wide range of positive benefits were identified by all carers as accruing from the interaction between participants and the animals in the project:

More sympathetic attitude towards animals

“I think that before now, if Chris had seen something killed by a car he would have gone, ‘So what?’ But I think now, I needn’t say ‘I think’, I do know because we passed a badger on the road coming up that was killed and he goes, ‘Oh. That’s awful’. Whereas [previously] Chris would go, ‘So what?’” (Chris’s Carer).

Improved family relations

“It was very very positive. Definitely and even at home here it was sort of calm. Do you know? She was happy so everyone was happy. Yes” (Ruby’s Carer).

More open and communicative

One carer stated that the participant was more open and communicative - “Reagan loves the ARC. Loves it… Yes. She would come home and tell me. Reagan would not have told me anything about where she was before. She wouldn’t have a conversation with you. But now she can” (Reagan’s Carer).

Increased patience

Another carer highlighted an increased level of patience displayed by the participant - “I just think he has more patience now with the animals and I can see that at home now” (Leslie’s Carer).

Contact with the animals in the ARC was also deemed to be positive for the participant by one carer and was characterised thus - “He was more relaxed around the animals. He wasn’t as tense or fearful of them. Even his own pets at home, he was more confident in going doing the stuff with them, whether it was giving them water, feeding them or taking them outside, taking them for a walk or whatever” (Jo’s Carer).

For another carer the participant’s ability to cope with her fear of certain animals was a positive outcome of participation - “It’s just the way she deals with animals. Conquering her fear” (Morgan’s Carer).
No carer tendered a negative response to the question

Discussion of these findings in the context of the literature will take place in the discussion section below

3.5 Weeks 2 & 20 - Staff

Findings from Interviews
2 staff members were interviewed
ALD participants were excited and positive
Staff stated that the Adults with a Learning Disability were excited and positive on the first day of the research project - “They were very excited. It was something new for them… They were positive. Yes. All of them actually were positive” (Staff 2).
Willingness to participate, help out and learn new skills
Staff also remarked upon the willingness of group members to help each other out and ask for help when required - “They would have helped each other out at times and that or if maybe somebody wasn’t sure of anything they might have said to each other, ‘Do you want me to show you?’” (Staff 1). Staff stated that participants seemed to enjoy activities that necessitated everyone playing their part, for example, moving animals to a new paddock, fluking the sheep or washing the dogs - “New jobs. Fluked sheep and goats today. Clients loving the craic. All assisted them in moving into a new paddock. All those jobs were good fun. You had to put everybody blocking off very pathway. So it was all group activity and it was like, ‘You here, you there.’ Everybody had their part to play. They enjoyed those kind of things” (Staff 1- from notes made). Participants learned new skills in relation to the animals - “They learned about nail-trimming and maybe foot rot. Why you inject them and what you inject them for… catching all these chickens and checking them for lice” (Staff 1) “… ‘some of them learned how to clean properly the cages. Some of them really enjoyed doing this. Some of them were really doing it properly and correctly” (Staff 2).
Working as a unit and growth in confidence
It was also stated that as time went on group members expressed a preference for certain tasks and work was apportioned accordingly but always with a sense of working as a unit and helping each other - “Everyone worked well together” (Staff 1)
…”They were better working like a group” (Staff 2). It was also reported that progress had been made by some group members who had grown in confidence and taken some ownership of the shared group-work - “William felt that it gave him a bit of ownership coming together in a group activity; everybody working to the same aim really lifted his spirits” (Staff 1).

Popularity of the dogs, ALD participant-animal interactions and interest in the welfare of the animals
In terms of the group’s interactions with the animals staff reported that they were interested in their welfare and how they were keeping. The dogs were the most popular animals as were those animals that could be touched and from which one could possibly experience affection e.g. the dogs, the goat, the pony and the donkeys - [ALD participants were] “more caring about the animals that you get more affection from … that you can touch and that will give you affection back. They’ll lick your hand or that you can physically cuddle” (Staff 1).

Dealing with fear and the death of an animal
It was also observed that one participant displayed progress in dealing with his fear of dogs while another retained his fear of birds throughout the research project. Staff reported feelings of sadness among participants on the occasion of the death of Barney, a St. Bernard dog housed in the ARC - “The mood was solemn, you know, for a few weeks and then obviously we introduced the new puppy which I wouldn’t say really helped but they enjoyed having the puppy … But they still will talk about Barney” (Staff 1) … “Some of them were really sad, especially Ruby. There were a few clients who were really sad” (Staff 2).

Staff perceptions of the views of Adults with a Learning Disability towards exercise and feelings of relaxation experienced during the project
Some group members were reported to have expressed how much they loved the exercise they were getting through caring for the animals while another had remarked on how relaxed he felt being around the dogs - “Chris and Darren, they were just chatting in general, and they said that they loved all the exercise that the animals provide them with. They feel better, they felt relaxed working with the dogs, because…well not just with the dogs, with the rest of the animals. They had nothing to prove. You have nothing to prove to animals” (Staff 1)
Beneficial effects in terms of learning and enjoyment
Staff considered the impact of caring for the animals to be beneficial for the group in terms of what they learned and how much they enjoyed it - “To me they thoroughly enjoyed it” (Staff 1) … “Some of them just learned how to do something and they just enjoyed doing the animals” (Staff 2).

Discussion of these findings in the context of the literature will take place in the “Discussion” section below

4.0 Discussion
From the outset it was clear that while there was an abundance of research into animal-human interactions only a small proportion of it addressed all three of the specific strands which constituted the nexus of our study i.e. Adults with a Learning Disability, a range of domesticated and non-domesticated animals none of which were their pets and caring for them in a non-domestic setting, in this case an animal sanctuary.

The discussion of the findings is structured using the 6 core quality of life domains which formed the basis of the interview guide for all participants and carers. There is a degree of overlap between themes, for example, the topic of “friendship” straddles the domains of interpersonal relationships and emotional well-being.

4.1 Theme: Interpersonal relationships
A recent review of the evidence relating to the task of changing attitudes to learning disability in the UK offers us this snapshot of the current situation:

“Despite increased physical integration, individuals with learning disabilities often still feel socially excluded and exposed to negative perceptions and unwelcome behaviours. Many are prevented from equal participation in education, employment, leisure and social pursuits” (Scior and Werner 2015, p.5).

The recognition that people with a learning disability are to varying degrees excluded from society at large is one that has been expressed many times over many years in government reports. The “Valuing People” strategy document issued by the Department of Health observed that “people with learning disabilities are often socially isolated” and further stated that “good services will help people with learning
disabilities develop opportunities to form relationships including ones of a physical and sexual nature” (Department of Health 2001, 7.39, p.81).

The need for and value of relationships among this group was further underlined in the subsequent “Valuing People Now” strategy document which focused on:

“the importance of enabling people with learning disabilities to meet new people, form all kinds of relationships, and to lead a fulfilling life with access to a diverse range of social and leisure activities” (Department of Health 2009, P.16)

In terms of this study, almost all of the 18 participants with a learning disability who had agreed to take part in the exploratory study had worked in groups prior to the start of the research and some had been members of the same group; a small number were therefore known to each other. When interviewed Pre-Week 1, before the caring for animals activities began, a majority of those participants expressed a preference for working as a member of a group as well as alone - “There’s times I like to be on my own and times I like to be with the group” (Chris). When asked their views on the possible importance of group-work, the range and depth of responses tendered indicated awareness, reasoning and a measure of apprehension in relation to this aspect of the project and what it entailed for them. Responses fell into approximately 4 main areas:

The first area concerned teamwork and help, where it was recognised by participants that group-work would be mutually beneficial for those involved which demonstrated a level of insight not only into their own limitations and those of others but in offering possible ways to overcome those limitations they showed both common sense and empathy towards others - “Sometimes when you ask somebody, they can help you out” (Drew) … “Yes. And then you find out people’s needs, different needs and you can help them” (Reagan).

This sense of mutual support was certainly evident among participants and is one that research in care farm environments has also highlighted. Leck (2013) in his study on the impact of care farming considered mutual support to be potentially beneficial for those who previously suffered from social exclusion through its encouragement of the development of a functional, supportive community. Staff 2 also referred to this when they stated in their final interview that participants - “were better working like a group”.
The second area concerned safety where a substantial number of participants highlighted potential concerns for both themselves and the animals and outlined how they could be addressed by working along with others - “Because if you’re left on your own you don’t know what you’re doing. You could get it wrong. Something could happen to you” (Jackie) … “Yes. I think working in a group is much safer for the animals as well” (Ruby).

The third main area identified was once again practical in its identification of the greater speed of task completion afforded by group-work - “You’d get things done quicker and you know what everybody’s doing” (Terry).

The final area touched on some of the social aspects of group-work - “Well, everybody knows that they mix together and become friends and all” (Ashley).

These responses afforded some insight into ALD participants’ conception of group-work and through the scope and content of their observations they demonstrated a clear understanding of the value of working in groups as well as the nature of the work they were about to undertake. The acuity of participant responses in this area suggested that their level of engagement was both high and informed. In Week 20, the fact that the responses tendered regarding group and teamwork were more expansive came as no surprise in view of the fact that the participants had acquired 20 weeks experience of working together and were therefore more able to illustrate their opinions with practical examples - “each week to week, where the guys would get in each week to week, they would get different duties, what they’re doing and how to progress and opportunities” (Danny). This concurs with research which suggested that service-users with intellectual disabilities and mental health issues identified “improvements or benefits” in their personal health and well-being as a result of their involvement in social farming, one such being the value they placed on being able to assume roles and responsibilities in their work in caring for the animals (Kinsella et al. 2014, p.7).

The majority of ALD participants stated that teamwork and the sharing of knowledge was important - “everybody kept each other right” (Alex) as were the speed and safety aspects of group-work - “Because there’s more people to help in your group if the animals try to run off there’s people there to help” (Nicky) … “if there’s maybe two or three doing it, it gets read up quicker” (Ashley). The fact that participants were more able to expand on their responses with the benefit of hands-on experience suggested augmentation of their levels of personal development.
There was a discrepancy between the ALD participants’ and carers’ responses in relation to the question of whether ALD participants would prefer to work in a group, alone or in both, where 10 ALD participants stated “both” while only 4 carers did so. This discrepancy may be attributed to the likelihood that carers were used to the idea that participants had already worked in groups and perhaps assumed that this pattern of working would be the ‘best fit’ for participants as it reflected the more traditional group-oriented approach utilised in Day-care activities - “he’s used to working with groups” (Darren’s Carer). It is also possible that this aspect of the project may not have been discussed in any depth by carers and ALD participants prior to the commencement of the research and consequently the former may not have been conversant with every choice and preference the participant had.

When interviewed upon completion of the 20 week period a majority of ALD participants once again expressed a desire to work in both a group and alone while the remainder preferred to be in a group setting only. The latter gave various reasons to account for this preference - “There was others around you” … “Just to talk to” [For the company?] “Yes” (William) … “Because I would find it difficult to work on my own” … “Because sometimes I can’t work on my own because I don’t know things and then I would need somebody to work with me and learn … I would know what to do if there’s someone with me” (Ruby)

The majority, in stating in both interviews that they preferred both group and solo working, indicated a level of adaptability and ease within the project which itself in reality demanded both approaches on a practical basis. Some reasons given for preferring group-work were remarkably frank and honest and demonstrated both self-awareness and common-sense on the part of participants. In other care farming/social farming research, support workers also acknowledged that due to the nature of farm work, service-users would be required to work in groups and alone and consequently meeting new people and relating to them would be features of their time on the farm. It was recognised that working in this manner helped “build their confidence and interpersonal skills both in groups and one-to-one” (Kinsella et al. 2014, p.8).

Upon completion of the 20 week animal research period, a majority of carers concurred with ALD participants in relation to their positive views on working as part of a group -
“He really enjoyed it and he seemed to get on well with everybody in the group. He said he was getting on well with everybody in the group and the animals and that” (Ashley’s Carer) ... “Well. He definitely enjoyed that. Darren likes groups” (Darren’s Carer).

The positive feelings articulated by participants with a learning disability have also been evidenced in care farming/social farming settings where it was reported that the “sense of camaraderie supported and encouraged service users in their work” (Kinsella et al. 2014 p.8). A small number of carers stated that ALD participants would prefer to work alone which was at odds with the zero response given to the sole preference of working alone by participants themselves.

When participants with a learning disability were asked if they felt more willing to work with others as a result of being involved in the research, the overwhelming majority stated that they would be more willing to do so - “Oh aye. I’d give it a try and see what it’s like” (Leslie) whilst 3 gave more measured responses - “Yes. Sometimes” (Jackie).

When asked if they felt that they could work better with others as a result of being involved in the study the positivity of the group once again emerged in the affirmation by the majority that they could do so. Their responses contained both social and practical considerations - “Yes. More now since I’ve did it” ... (Reagan) ... [I] get along with them better” (Leslie) ... “I love to help people out”... [Better now than 20 weeks ago?] “Yes.” (Jo). The willingness on the part of Adults with a Learning Disability to support each other and its value and importance for them has been reported in other research (Beresford et al. 2005; MacDonald 2016).

The positive attitudes evident among the 18 ALD participants were certainly borne out by the findings which indicated that all of that number overwhelmingly endorsed the idea of working in a group or in both a group and alone; 16 felt that working as a group was important when working with animals; 16 believed that they could work better with others and 15 reported that they were more willing to work with others after taking part in the animal research study. Again this demonstrated personal development in the area of interpersonal relations and suggested that participation in the animal research study had, to varying degrees, improved their ability and desire to work with others both now and in the future.
A number of new friendships were evidently made by ALD participants during the course of the project with 10 of their number speaking positively about their feelings in relation to their new friends - “In the twenty weeks group I made more new friends as I went along” [How do you feel about that?] “Yes. Happy enough. Yes” (Ashley).

A small number of participants tendered more negative responses - “I just talk to whoever talks to me. But if they don’t talk that’s okay. That’s their choice” (Nicky).

Research tells us that people with learning disabilities may experience problems in establishing and sustaining friendships and relationships due to a number of factors over which they have little control. Findings suggest that Adults with a Learning Disability may have difficulty forming friendships (Richardson and Ritchie 1989; Chappell 1994), have fewer social contacts or friends (Cooper 1998; McConkey and McCullough 2002; Emerson and Hatton 2008) and in the main their social networks consist of other people with learning disabilities, staff and family (Richardson and Ritchie 1989; Robertson et al. 2001; Forrester-Jones et al. 2006; Pockney 2006).

It has been proposed that facilitating such friendships should therefore be part of person-centred planning, alongside the development of new community contacts (Forrester-Jones et al. 2006), a view also evident in the “Equal Lives” review of policy and services for people with a learning disability in Northern Ireland which stated that one of its objectives was:

“to enable people with a learning disability to lead full and meaningful lives in their neighbourhoods, have access to a wide range of social, work and leisure opportunities and form and maintain friendships and relationships” (DHSSPS 2005, 5.2, p.45).

The area of friendship itself is one that has elicited some concern among adults with intellectual disability (McVilly et al. 2006) and it is evident that there exists a wish on their part to develop friendships (Froese et al. 1999; Cole et al. 2007). Making and retaining friends requires both the opportunity and ability to do so (Richardson and Ritchie 1989) and people with learning disabilities have themselves indicated that they need “more support from friends, family, and services staff in order to develop new relationships and keep their existing ones” (Bane et al. 2012, p.109). Research also suggests that “perceived social support has a very robust association with life satisfaction” which may be attributed to the fact that “the quality and quantity of an individual’s social network allows for more opportunities for participation in social and
community activities, and this may influence the individual’s life satisfaction” (Miller and Chan 2008, p.1045).

The positive social and emotional effects of developing new friendships within the context of the animal research study was certainly evident in the following - “I feel like I’m really happy that I’ve met new friends and it’s good experience to have good craic with them and spend time with them and just have a bit of fun with them” (Ruby).

Young people with learning disabilities have also highlighted the difficulty in establishing friendships and have identified a lack of places to meet as a contributing factor. This view was echoed by parents who stated that young people do not have many opportunities to meet other young people thus curtailing opportunities for them to build relationships (Garbutt et al. 2010).

In a social farming context benefits in relation to the area of social inclusion were identified by 81% of service-users which included meeting new people, making new friends and interacting with project staff (Kinsella et al. 2014). This increase in the size of participants’ social network was also highlighted in other research which stated that such networks could be further expanded through involvement in supported employment (Forrester-Jones et al. 2004) and the suggestion that the mechanisms which promote inclusion could be enhanced through the development of a person’s supportive social network (Finlay et al. 2008).

Research however, has also shown that the social networks of people with learning disabilities have “tended to be divided into a number of smaller ‘factions’ or social groups who had limited contact with one another” with little evidence of augmentation of their number of social contacts over time (Pockney 2006 4.1). In terms of contact with friends, findings have shown that 31% of Adults with a Learning Disability said that they did not have any contact with friends while 5% had no friends and also did not see anyone from their family (Emerson et al. 2005). These findings were supported by another research study which reported that only 21% of the 65 persons with additional needs resettled from a long-stay hospital environment in Northern Ireland into residential and nursing home care had “regular or frequent” contact with friends outside of their current residence (McConkey et al. 2000). In other research, involving 2898 adults with a learning difficulty, 69% of respondents said that they saw friends who also had learning difficulties while 25% saw friends who did not have learning difficulties (Emerson et al. 2005). Findings that suggested
that people with intellectual disabilities were more likely to be involved in activities with friends who also had intellectual disabilities than with friends who did not was further supported elsewhere with “low levels of friendship activities” recorded among people with intellectual disabilities in supported accommodation (Emerson and McVilly 2004, p.195). An indication of the value and importance of friendship for people with learning disabilities has been reported in research where drawing upon their own experiences of spending time with friends, participants “reported feelings of enjoyment, amusement and reassurance and of gaining a sense of being personally valued” (Mason et al. 2013, p.115).

The satisfaction derived by Adults with a Learning Disability through interacting with others whilst working on the animal research project was apparent - “It was good meeting other folks” (Tony) and further underlined the view that “the experience of friendship has long been recognised as an important element in a satisfying lifestyle for people with intellectual disabilities” and the importance of consequential relationships with others in promoting well-being on their part (Knox and Hickson 2001, p.276).

Over half of the carers interviewed stated that new friendships had been made by participants with 5 stating that the new friend or friends were mentioned in a positive way - “She did speak well of them” (Reagan’s Carer) … “Oh God yes. James. I heard a lot about James” [And was that positive?] “Oh yes. She was very positive about James. Just as a friend but” (Morgan’s Carer). As one would expect there was a degree of uncertainty among some carers in relation to whether new friends or acquaintances had been made and may have been due to the fact that some carers perhaps assumed that because no particular mention was made of new friends then no new friendships had been made - “Well. He never mentioned any new friends” (Ashley’s Carer). One carer reported that two participants, previously acquainted with each other, had developed a new rapport since their involvement in the research - “their relationship has appeared more positive” … “In that, because they’re going to the animal research on Monday … that’s been a positive influence, you know, they’re positive together” (Terry’s Carer).

There were certainly positive indications among both ALD participants and carers that signified a willingness on the part of participants to engage with others and bond on some levels in a work context which indicated the existence and employment of interpersonal skills and developing social relations within the groups. Perhaps the
most telling consequence of taking part in the animal research study in terms of interpersonal relations was the opportunity it afforded participants to work and socialise together which in turn provided a platform for developing and maintaining friendships.

4.2 Theme- Personal Development

The Care Council for Wales in describing working with people with learning disabilities offered the following in relation to personal development:

“The ultimate goal is to support service users to develop decision making abilities, choose their own paths, feel respected and live as independently as possible within their community. This way of thinking has led to a person-centred approach to care, where the individual is able to develop a package of educational and care services which meet their needs. This allows a far greater degree of independence and choice which isn’t always open when existing local services don’t meet exact needs, leading to frustration and social isolation.” (Care Council for Wales, p.2 (n.d.)).

This goal is also present in Bamford’s 2005 ‘Equal Lives’ review in its assertion that people with a learning disability:

“must be supported to have control, to have their voices heard, to make decisions about how they lead their lives and about the nature of support that they receive” (DHSSPS 2005, 1.13, pp. 6-7)

and its aim to enable them:

“to lead full and meaningful lives in their neighbourhoods, have access to a wide range of social, work and leisure opportunities and form and maintain friendships and relationships” (DHSSPS 2005, 1.15, p. 8).

Of the 18 participants in this pilot study 11 stated that they had not worked with animals before whilst 7 stated that they had done so in a general farming background, working as they did with sheep, hens, cows and horses. Only 2 members of the group had never had a pet, though one of them had worked with animals before so contact with animals was a new experience for only one ALD participant.

In Week 20 when participants were asked if they considered that looking after animals was an activity worth doing, the positive responses tendered indicated notable levels of insight among respondents which fell into three main areas. Firstly there was recognition among participants of the educational value of working with animals which demonstrated a measure of personal development in terms of
their identification of the worth of learning new skills - “it was worth learning, because everybody has to learn different things in different areas” (Jackie). This was also reported in findings from research in the area of social farming involving Adults with a Learning Disability across the 5 Health and Social Care Trusts in Northern Ireland which stated that almost half of respondents expressed satisfaction in being taught something new (Johnston 2016).

There were also indications of personal development in terms of the demonstration of a clear awareness by a significant number of respondents of the worth of the work for both themselves and the animals they worked with - “Because nobody else cares about these things and us people, we do care” (Alex). Participants, by identifying a connection between what they were doing and its outcome in relation to the welfare of the animals, highlighted the importance of the activity in the sense that the work had meaning for them as opposed to their being required to undertake a series of tasks they may not have had any purposeful connection with or empathy for. Staff 2 reinforced this in the observation - “I think they were interested in the animals and how they were keeping especially you could see the example with Barney [a St. Bernard dog] when he died. Some of them were really upset”.

This point was also made in a study by Leck (2013) in the area of care farming - “Caring for animals allows people to engage with non-judgmental living beings and to take responsibility for the well-being of others” (p.198). The same study also offered the following in relation to participants’ relationships with the animals - “Many of the people with learning disabilities required care and attention but were keen to engage with useful activities. They widely appreciate the farm elements (most commonly the animals) and value being able to actively participate in an inclusive and productive workplace” (p.179). The essence of the partnership inherent in the fabric of the work being done with animals in the ARC was also succinctly captured by Stephen Philpott, Chief Executive of the USPCA in 2011 when he said - “It’s a good news story for us; it’s a good news story for Adults with a Learning Disability but best of all it’s a good news story for the animals” (Opening Doors 2011).

The connection between ALD participants and the work they performed has also been further noted in relation to care farming where farmers identified positive feelings among clients which were attributed to their sense of being involved in work that was both “real” and important (Elings 2004).
Again in the area of personal development many ALD respondents clearly saw not only merit in the tasks and the importance and value of their role in performing them but clearly enjoyed the work - “It was worth it because you got to work with all the animals. You got to do different jobs. Cleaning them out and feeding them” (Leslie). Staff 2 also described the effect that working with the animals had on participants - “It was more positive … Some of them just learned how to do something and they just enjoyed doing the animals”. ALD participants also demonstrated personal development in learning new skills in addition to enjoying the work - “some of them learned how to clean the cages properly. Some of them really enjoyed doing this. Some of them were really doing it properly and correctly” (Staff 2). The enjoyment derived from participation in tasks that are both physically demanding and tiring has also been noted in the area of social farming (Johnston 2016).

Recent inclusive research into what makes people with learning disability happy and satisfied with their lives has reported that participants attach great worth to having roles that are valued both by themselves and others (Haigh et al. 2013). This was clearly evidenced during the research by Adults with a Learning Disability, their carers and staff.

When asked about the range of tasks they engaged in whilst working in the animal research project, ALD participants’ responses encompassed the full cycle and range of activities; the feeding and cleaning of the animals and their pens and cages and the biweekly rotation of caring for farm animals and the dogs. Everyone tendered examples of different tasks to substantiate their statements which set out a range of activities involving a wide range of animals over the entire period of the project. Each participant in that time was clearly afforded an equal opportunity to engage in all tasks through a regular work rotation system - “One day we would do the cleaning then the next day we’d get to do the feeding. Everybody took turns” (Alex) … “Well … one week I was working with the farm animals and another I was working with the dogs” (William).

In terms of having a task preference the majority of participants, having chosen the dogs as their favourite animal in the project, selected dog-related activities as their preferred task. Of the 12 participants who cited dog-related activities 7 stated that walking the dogs was their favourite activity with the remainder stating that feeding dogs and cleaning out their pens was theirs - “I loved the dogs. Washing the bowls and taking them for a walk and that” (Bernie).
The popularity of the dogs was not surprising when one considers the estimate that 8.5 million dogs (24% of households) are kept as pets in the UK (PFMA 2015). Research concerning the human-canine relationship yields a range of findings which offer evidence of this bond and possible explanations for its existence. A body of research suggests that through “a complex evolutionary process, dogs became adapted for living in human society” (Miklósí et al. 2004, p.995) and that “during the process of domestication dogs were selected for a set of social-cognitive abilities that enable them to communicate with humans in unique ways” (Hare et al. 2002, p.1634). It has been suggested that preference for interaction with dogs in tests involving children with Autism Spectrum Disorder (ASD) can be attributed to the absence of verbal communication in the interaction and the ability of the dogs to communicate intention in a way and on a level that is more easily understood by people with ASD (Prothmann et al. 2009). It has also been proposed that dogs may have taken on some features and manner of human communication during the period of their domestication by humans, for example, mutual gaze, an important component in enabling social communication and the perception of the emotional state of others (Nagasawa et al. 2015). Another study has suggested that because dogs possess an ability to look at a human’s face, a feature acquired on their evolutionary journey, they were consequently able to become involved in complex forms of communication with humans. Their willingness to engage in looking at humans enabled them, perhaps reinforced by positive rewards, to establish and maintain levels of communication with them (Miklósí et al. 2003). The popularity of the dogs and dog-related activities was certainly evident among responses tendered by a majority of ALD participants in the research project. The fact that 7 ALD participants also offered more general answers which cited feeding and cleaning the pens of all animals as favourite activities did however give some balance to the picture and countered the perception that the dogs were alone in being of interest to the participants - “I liked them all “[the animals]. (Ashley). The prevalence of dogs as the favourite animals among ALD participants may have been due to their familiarity, the fact that participants could spend more time with them, perform more tasks with them, in addition to being able to engage with them in a more interactive relationship. The misgivings expressed by participants in relation to some of the various tasks assigned can be divided into two areas; firstly, the negative feelings expressed by
several participants which were engendered by their proximity to a particular animal whose behaviour caused anxiety or nervousness … [All the fish going around, does that make you nervous?] “A wee bit, yeah” (Darren) and secondly the aversion expressed by some participants towards the task of cleaning out the pens, particularly those occupied by the donkeys - “Cleaning the donkey’s poo up” (Ryan). Such feelings were not unexpected when performing the various tasks connected with the animals. When asked if there was anything they would have liked to have done during the project which they did not or could not do, the majority of participants had no suggestions to make.

In terms of their willingness to work with animals again, all but one participant, who said “Maybe” (Jackie), indicated a desire to do so - “I enjoy it and it’s good fun” (Leslie). The positive responses to the question certainly indicated a strong endorsement of the idea of working with animals again and also conveyed a sense of enjoyment derived from participation in this aspect of the research project - “Because I love doing it” (Bernie).

This was both mirrored and reinforced by a majority of carers who also indicated that the participants would like to work with animals in the future - “Oh, definitely. Definitely. He’s definitely an animal person as you know from the dogs. I think it was really good for William to maybe get a bit of experience of other animals but as I said earlier the dogs would be the big thing” (William’s Carer). Staff 1 also spoke positively about the impact that caring for animals had on participants - “To me they thoroughly enjoyed it”. Both carers and ALD participants were therefore in accord in relation to the latter’s desire to work with animals in the future thus further underlining the positivity they felt towards the project as a whole. The desire of ALD participants to continue working with animals in an outdoor setting has a parallel in the wishes of service-users on social farms to continue in the area of agriculture after their projects ended (Kinsella et al. 2014).

When ALD participants were asked to consider and discuss the area of present and future work, the following themes emerged from their deliberations; greater evidence of independence, responsibility and confidence.

All but one ALD participant stated that they could work, in varying degrees, more independently as a result of working in the animal research study. Some participants reported a modest change in how they viewed their ability to work more
independently - “I can do it better now” [Why is that?] “A wee bit more confidence. Not a whole lot but a wee bit” (Jackie). This view was reinforced in general by carers’ comments in relation to ALD participants taking more responsibility and demonstrating independent thought as a consequence of their involvement in the study - “I think, whether it’s involved in that or not, from working with the animals and having the responsibility of that, he wanted to improve our garden. Whether there’s any relation or not, whereas before that he didn’t want to participate in anything and now he wants to take charge of the garden and take ownership. And take responsibility for plants and wants to purchase plants and looking after them and that; whereas beforehand he wouldn’t have been” (Nicky’s Carer) … “I think it was taking care of the animals, he thoroughly enjoyed that; he liked the responsibility of that” (Terry’s Carer).

Other ALD participants stated that they felt a much greater sense of independence in a work sense through involvement in the research project - “I think I do have more independence in myself now where I can go, ‘That needs done there, that needs done there and make sure that’s done’ … I’m saying that to other people, now that I have the confidence that I’m not depending on everybody else to do stuff for me” (Ruby) … “Because you’ve got the confidence now to do them [work related tasks] here, in the past you mightn’t have the confidence.” [Where do you get that confidence?] “People around you and the staff” … “They encourage you to do it.” [And if you get it wrong?] “They would come back and tell you what you did wrong and then you can improve on that” (Leslie). The desire for a degree of independence tallies with findings of a consultation/report carried out by the Foundation for People with Learning Disabilities for Health Education England working across Kent, Surrey and Sussex which stated - “Both people with learning disabilities and the parents we spoke to were very keen for people to learn a range of practical skills to lead as independent a life as possible” (Davies & Burke 2016, P.20).

The comments made by ALD participants were certainly varied and engaging, indicating as they did an increase in confidence, independent thinking and even “courage” (William), in one case, among a great many of their number as a consequence of their involvement in the animal research study. This suggests evidence of a measure of positive improvement in the area of personal development among the majority of participants which was also corroborated in comments made
by the carers and in some cases suggested as having manifested itself in the world outside the animal research study - “I would say that he has learned to be more confident with animals for a start anyway because he was always very nervous with dogs. If you stopped to talk with somebody who had a dog, he’d stand behind you. He would ask the dog how it is but he never petted it or anything, where now he would. And he’d talk about dogs and things like that” (Darren’s Carer).

Findings in the area of care-farming/social farming have suggested that “reported changes in self-confidence are therefore perceived as impacting on future life opportunities but they are also presented in some instances as having already resulted in positive changes in people’s wider lives away from the care farm” (Leck 2013, p.163). Other findings from this area of research have indicated that the social skills identified by service-users with learning disabilities as a result of participation in a social farming project included “independence; communication and interpersonal skills; coping and listening skills; and working as part of a team” (Kinsella et al. 2014, p.8).

Other areas of personal development among ALD participants which were identified by carers in the animal research study included the manifestation of more patience as evidenced by the statement - “I think he has learned a wee bit more patience with animals because I could see him at home being more patient with our dog” (Leslie’s Carer). This again suggests personal development where something learned is transferred to other areas of ALD participants’ lives, a point perhaps supported by another carer’s identification of increased willingness on the part of a participant to lend a hand at home - “Well, probably in helping about the house. I’ve noticed now that he would take the brush out and brush the driveway probably things he was doing elsewhere” (Danny’s Carer).

In terms of having and expressing an opinion on any aspect of how the animals were cared for, a significant number of ALD participants stated that they did not express an opinion and were not bothered by this with some stating that their non-expression of an opinion was due to their belief that the care given to the animals was satisfactory - “No. The way it was being done was right” (Chris).

The majority of Adults with a Learning Disability who participated however stated that they were certain that any opinions put forward by them in relation to the care of the animals, if tendered, would have been valued in the group and a similar number also stated that they in turn valued the opinions of others. 4 respondents however did not
fully support the view that their opinion would be valued by others - “They probably don’t place a value on my opinion” (Jackie) but one of that number also suggested that there were occasions when their opinion may in fact be valued - “Some people might have and some people might not have … It depends. They might not have agreed with my opinion but it’s just my opinion” (Leslie). The fact that the majority of participants stated that they believed that their opinions, if given, would have been valued by others, as would they themselves have valued the opinion of others, suggests good team-working and an ability to think outside of themselves, itself a clear indication of personal development.

The fact that 8 carers expressed the belief that participants’ experiences in the animal research study matched their expectations and in a further four cases exceeded them, provides additional evidence that the project was a positive experience for ALD participants and may therefore have contributed to their personal development - “Well what I understand is that William was down with people who liked animals, working with animals. That’s what he certainly expected when he went down and that’s what he achieved at the end. So, from that element, yes” (William’s Carer) … “I think it actually, to me, it worked out better for him” (Ryan's Carer) … “I think it was. She actually thought it was better” (Ruby’s Carer).

The participants’ levels of expectation were fairly high if one judges them by the positive attitudes initially recorded by carers and ALD participants themselves prior to the commencement of the study. The fact that the animal research study did match or exceed the expectations of 12 out of 18 ALD participants, according to their carers, again suggested a high level of participant engagement and emotional involvement. Also in terms of future plans, the clear indication by all 18 participants that they would be willing to take part in another new activity further demonstrated their positivity and in some instances a clear understanding of the need to learn and diversify - “You have to learn” (Darren). This may suggest that the positive experience of working with animals had to varying degrees increased participants’ confidence and augmented their personal development as indicated by their willingness to try something new - “Because it’s a new activity and you should give it a go to see if you like it or not” (Ruby). In a social farming context the desire on the part of service-users to attempt new things has also been noted (Kinsella et al. 2014).
Leck (2013) in describing the benefits of care farming for participants outlined the relationship between working in a natural environment and improvements in well-being as stated by participants themselves:

“The service users themselves most commonly chose to describe change in mental health and well-being in terms of confidence, happiness and emotional stability. Such improvements were essentially presented as having resulted from being able to develop and apply new skills in a social and natural working space. Having the opportunity to both receive and provide (reciprocal) social support was a particularly valued element of the experience” (Leck 2013, pp.178-179).

If one applies Leck’s observations on care farming to a consideration of the animal research study carried out in the ARC one can draw a number of parallels between the two particularly in the area of personal development where the acquisition and application of new skills in two socially supportive environments and work regimes, which in many ways resembled each other, was reported by participants to have resulted in beneficial changes in their mental health and well-being, as represented, for instance, by increased confidence and happiness.

4.3 Theme- Emotional well-being

Emotional well-being has been defined by the Mental Health Foundation as “A positive sense of well-being which enables an individual to be able to function in society and meet the demands of everyday life; people in good mental health have the ability to recover effectively from illness, change or misfortune” (Mental Health Foundation (n.d.) cited in Imperial Health at Work (n.d.)). People with learning disabilities, as with everyone else, may therefore benefit from developing a positive state of mind, one which allows them to make connections with others in the wider society in a manner that is both safe and manageable. In relation to improving the quality of life for Adults with a Learning Disability the Scottish Government identified relationships as being a positive factor in promoting well-being for this group:

“From ‘The same as you?’ consultation we know that relationships are of key importance to people with learning disabilities and essential for their well-being but relationships come in many different forms. Being around other people encourages people with learning disabilities to develop their social skills. Developing social skills helps them to make friends and helps them to integrate into the community. People with learning disabilities are less likely to feel lonely or isolated if they have friends, family and carers to support them” (Scottish Government, Recommendation 33, p.72, 2013).
Mencap (2016), in recognising the value of companionship further stated that “Friendships can help people feel happier, included and valued. They can also enhance wellbeing” (p.1) whilst recognising that people with a learning disability may be at a grave disadvantage in many respects as they “have fewer opportunities to meet new and existing friends” (p.1), a situation that they may have little control over. It may therefore follow that any activity that affords people with a learning disability an opportunity to work and socialise together could provide increased opportunities for participants to develop relationships and thus perhaps improve their emotional well-being. The animal research study in the ARC certainly provided evidence to suggest that this was the case.

As earlier outlined in the Discussion section, over half of the ALD participants in the study stated that they had made new friends and spoke positively about those friendships - “I’ve met so many good friends here” (Ruby). The friendships facilitated by involvement in caring for animals in the group setting in the ARC were similarly found in the area of social farming where working in a group situation also enabled service-users to develop new relationships and friendships which proved supportive in both work and personal situations (Kinsella et al. 2014). Johnston (2016) also reported in her study on social farming that around half of the respondents mentioned that they derived pleasure from making connections with other participants and the farmers. Further evidence in support of the view that group-work with animals may help facilitate socialization between participants was provided by a study involving at-risk youth participating in an animal-assisted therapy programme which posted unexpected self-reported findings of positive interactions between participants (Terpin 2004).

It has also been estimated that one in four adults in any one year experience significant mental health difficulties and though difficulties exist in data gathering in this area in relation to Adults with Learning Disabilities most researchers agree that the prevalence of mental health problems among this group is at least equal to if not higher than those found in the general population particularly in relation to psychological and emotional difficulties (Stenfert-Kroese and Rose 2011). Research in the area of the emotional lives of adults with learning difficulties is however lacking and the need to rectify this has been recently highlighted (McDonald 2016).

When potential ALD participants were first approached in relation to the animal research study it was explained that if they undertook to join the group they would be
likely to come into contact with a range of animals including a snake, goats, donkeys, turkeys, dogs, birds, pigs, sheep, cats, chickens, rabbits, ducks and other species. Before initial interviews with the 18 ALD participants the range of animals they were likely to come into contact with in the ARC was again outlined and in the course of the interview proper ALD participants were asked if they were nervous about the prospect of working with those animals.

10 participants stated that they were nervous about the prospect of working with animals in the ARC with 8 of that number stating that they were nervous of snakes - “I’d be unsure about snakes” … “They’re slimy” (Darren). Despite these misgivings 17 participants expressed positive views about participating in the project thus suggesting that their desire to participate clearly overrode their nervousness and fears about certain animals - “I’m positive” (Tony).

All but one of the 17 carers interviewed also declared that ALD participants had a positive attitude towards the research with many stating that the participants were fully engaged with the prospect of taking part and were enthusiastic about it - “he would do it wholeheartedly … he’s keen and eager to participate” (William’s Carer). “She’s very excited. She can’t wait” (Ruby’s Carer). 1 carer however stated that the attitude of the participant may be negative and expressed misgivings in saying that the participant - “would be a bit sceptical about it” … “Because he’s not used to it … not used to the animals” (Leslie’s Carer). The findings from carers therefore closely mirrored those tendered by the participants in terms of their initial attitude towards involvement in the research. It is interesting to note that while the carers, in the main, stated that the attitude of ALD participants to taking part in the animal research project was positive, when they were asked to describe participants’ feelings towards animals, some carers expressed reservations in citing participants’ nervousness and fear - “He’s afraid of animals, especially dogs. He doesn’t like cats either because they can jump up” (Jackie’s Carer) … “In the past. Yes. He would have been quite afraid of cows, pigs or something like that there. It’ll be interesting to see what way he goes” (Jo’s Carer). Their comments in relation to ALD participants’ fear of animals may have been based on past experiences of participant-animal relationships and interactions and applied to their prospective involvement with animals in the ARC.

Staff 2, in describing the participants’ first day of work further underlined the positivity expressed by ALD participants as corroborated by carers towards the study in
stating - “They were very excited. It was something new for them.” [They were positive?] “They were positive. Yes. All of them actually were positive.”

By and large, therefore, ALD participants, as confirmed by their carers and staff, were reported as being positive in relation to taking part in the project despite specific and perhaps experience-based concerns being cited by some carers. 8 ALD participants subsequently stated that they were nervous on the first day of the project with some citing the animals as the source of their unease - “A wee bit nervous” … “I’d never seen animals like that before… pigs.” … “It was my first time” (Darren) … "I think I was quite nervous on the first day because I didn’t know any of the animals and then I was like ‘What kind of animals am I gonna see?’ ” (Ruby). Others were nervous about who they would work with - “Meeting new people and stuff” (Ryan) … “I was nervous that I wasn’t going to meet any new friends” (Danny). These responses are unsurprising given that people were embarking upon a new project, meeting some people they didn’t know and encountering some animals they had never been in close contact with before.

In the past some findings concerning the emotional development of adolescents with learning disabilities have not been particularly positive (Huntington and Bender 1993) with research suggesting that this group had “twice the risk of emotional distress … than their peers” (Svetaz et al. 2000, p.340). Research in the area of emotional well-being has also suggested that among children with Intellectual Disability, quality of life can also be diminished by loneliness and depressive feelings (Schalock et al. 2002;Petry et al. 2005) and while this may be the case, a measure of optimism has been offered by the view that the companionship offered by pet ownership “provides intrinsic satisfactions, such as shared pleasure in recreation, relaxation, and uncensored spontaneity, all of which add to quality of life” and furthermore it “may be important in fostering positive mental health on a day to day basis” (McNicholas et al. 2005, p.1253). In the context of the animal research study, though the animals being cared for were not their pets, ALD participants were still afforded ample opportunities to interact with them over a 20 week period and thus have the possibility to develop relationships and perhaps bond with them.

When ALD participants were asked during the Pre-Week 1 interview how they felt about their own pets, past and present, as well as animals in general, their
responses fell into four main areas: friendship and company; safety and relaxation; love and happiness; and the pet as a family member.

The area most cited in responses covered the friendship and company provided by pets that they still or once had - “It’s just some days when I’m down and some days when I’m feeling good or some days when I’m feeling bad, you know the oul dog’s been everywhere with me. It’s been through the thick and thin. Some would say the rough with the smooth. You know, the dog’s been with me all the way. They don’t talk back … just go everywhere. They’re there for you if you just grab the dog and away you go, you know. They’re company” (Alex) … “I was very close to it.” … [it was a] “friend” (Tony). It was clearly evident that some ALD participants had strong emotional attachments to their pets, past and present.

Another area which reflected the emotional well-being experienced through their interaction with a pet was that which outlined the feelings of safety and relaxation derived from that contact - “I felt really safe when I was with him.” (Ruby) … [the dogs] “relaxed” [him] (William).

The third area outlined by ALD participants was that of the love they expressed for their pet - “he [his pet dog] comes into my life and my heart and stuff. I love him so much” (Danny).

Some participants also referenced their pet as a family member - [it was] “part of the family” (Terry).

Notes of negativity towards pets were however present in the responses of 2 ALD participants who indicated that the family pet meant nothing to them (Reagan and Morgan).

Bowlby (1969) characterised interpersonal relationships and attachment as a “lasting psychological connectedness between human beings” (Bowlby 1969, p.194), a theory which some have sought to extend to the realm of human-pet relationships. Research suggests that pets can provide both reassurance and comfort for their owners in times of difficulty as for example do parents and partners for people in interpersonal relationships. It has been proposed that the development of the relationship between human and pet may in part be explained by and attributed to a number of factors, for instance the suggestion that “the non-judgmental, unconditional love and acceptance that pet owners receive from their pets, which promotes a sense of attachment security, can moderate the extension of human-relational working models to the human-pet bond” (Zilcha-Mano et al. 2011, p.355).
If one examines the available literature one discovers a great body of evidence to substantiate and illustrate the existence of this human-animal attachment. The emotional affiliation which may exist between humans and animals, particularly in the case of an owner and pet, can, it is said, be as profound as that observed in many human relationships and “may confer similar psychological benefits” (McNicholas et al. 2005, p.1252). It has been suggested that humans may deem the company of a cherished pet to be less stressful than that of another human due to the nature of the animal’s emotional support which is both non-judgemental and unconditional in nature. (Allen et al. 2002). Pets may also provide levels of comfort and company for people and families experiencing adversity and distress, for example in cases of bereavement, depression and divorce (Cain1985; Sable, 1995; Enders-Slegers 2000; Adamle et al. 2009). Research also supports the view that animals are providers of companionship for humans across a range of ages in the findings that pet ownership among students and middle-aged community members was most often attributed to their wish to avoid loneliness (Staats et al. 2008). Studies have indicated that many families consider their pets to be members of their families (Cain 1983; Risley-Curtiss, Holley and Wolf 2006; Faver and Cavazos, 2008) and have reported that individuals may perceive the relationship with their pet dog as being as close as their relationship with a spouse, child or parent (Barker and Barker 1988).

When some ALD participants spoke of their pets they clearly indicated the existence of a great emotional bond between them, one characterised by love, friendship, happiness and the provision of company.

Carers in Week 20 again reinforced the positive views tendered by participants in relation to caring for animals in the ARC prior to the commencement of the study …

“He was looking forward to it and actually said that he was looking forward to it ”
(Nicky’s Carer) … “It was something new and he was interested. He definitely was interested” (Tony’s Carer).

Findings suggest that the majority of ALD participants maintained or experienced an increase in their positive level of enthusiasm and commitment to taking part in the animal research study during its 20 week duration. This view was supported by the responses of the carers who described in very positive terms the favourable views and behaviour of ALD participants throughout - “As the time went on he got more enthusiastic” (Chris’s Carer) … “I think she was more positive. Yes. She looked forward to going Monday morning. Reagan wouldn’t have bothered if she was going
to work placement she wouldn’t have went. Reagan is up and has her lunch made the night before. So I would say that she would be more positive” (Reagan’s Carer).

There was certainly a very high level of engagement in the project on the part of ALD participants as evidenced by their carers with further evidence provided by them which suggested that caring for the animals had a positive impact upon the participants - “Anything that William told me about it was positive, that he enjoyed it, he was relating well to people. He enjoyed it to the extent actually that I was working with him actively, recently, looking at timetables because he wanted to go down and continue doing it, off his own bat and at his own cost … so obviously if he’s prepared to do that off his own bat, he’s getting something out of it that’s over and above” (William’s Carer). In other research greater levels of commitment to social farming among participants have also been reported by key workers which have consequently been linked to an increase in motivation among participants to be both independent and organised (Johnston 2016).

The few negative comments tendered did not relate to the research study per se, as for example in the case of a carer who, when asked if the ALD participant had voiced any negative comments in relation to the project, stated that the participant had - “None whatsoever, apart from one day she didn’t like the soup” [for lunch in the ARC] (Ruby’s Carer).

At the conclusion of the study the majority of ALD participants stated that they were not nervous of the animals and said that they felt the same towards them as they did at the beginning of the research project - “Probably just the same” (Ryan).

It is worth noting that in the initial Pre-Week 1 interview with the 18 ALD participants 10 of that number stated that they were nervous about certain animals with 8 of them reporting that they were mainly nervous of the prospect of caring for snakes and 1 participant each of spiders and reptiles; however when the research project subsequently began, no snakes, spiders or reptiles were actually present in the ARC, so only the 5 participants who declared that they were nervous of dogs, birds and goats could be asked specifically about their initial and current state of nervousness, if any, after 20 weeks.

It is also important to note that in Week 20 the three participants, who initially had reservations concerning dogs, now stated that there was a positive and discernible change in how they felt and clearly demonstrated a measure of personal and emotional development in that they were now to an extent able to manage and
overcome their fears. One identified a degree of difference in how he felt around the dogs - “It hasn't really changed” [but he now felt] “more confident”… “about how used to them I was beginning to get.”… “about being surrounded”… [about] “being with them” (Jackie). This was corroborated by Staff 1 who reported that Jackie, though very nervous, was, within three weeks, not only walking a dog but petting it. Another participant stated that the situation was “okay” now because the dog that had initially induced nervousness because “He was pulling me” now no longer did so (Morgan). A third participant who originally expressed nervousness around dogs stated that - “Since I was down there walking the dogs and touching the dogs” [he now felt] “good” with them (Bernie). The fear of goats and birds respectively, remained however in the cases of two other participants.

Research into the prevalence of specific phobia among adults with intellectual disability, i.e. significant fear of a particular object or situation which occasions anxiety and avoidance behaviour, has shown that in comparison to adults in the general population without intellectual disability this group showed significantly higher rates of phobic disorder (4.4%) when measured against rates for the general population (1.1%) (Deb et al. 2001).

In other research involving children and adolescents between 7 and 18 years of age who had learning disabilities (LD) or mild mental retardation (MIMR), results indicated that girls, for example, demonstrated higher levels of total fear than boys in relation to minor injury or small animals (Li and Morris 2007). Among people with physical or intellectual disability it has also been reported that in line with findings among the non-disabled population females demonstrate higher fear levels than males (Gullone 1996). In terms of the research carried out in the ARC the male/female ratio in being 15:3 rendered it difficult to make meaningful comparisons on any level between participants.

Dogs were clearly the favourite animal among ALD participants as stated by 15 of their number … “They all seemed friendly” (William) and “I come close to Coco” … “I liked being friendly with him and getting to know him and just getting him to wag his tail at me. It was so good.” … “I felt really good, like” (Danny).

Staff 1 commented on the interaction evident between participants and the dogs as they sat together in the dog enclosure - “How the group noticed that dogs enjoyed their company was we had finished the work … and some of the dogs got groomed.
and brushed, and while we were just sitting throwing a ball, and running around the pen area, the dogs never went away from us. They stayed with us. If you sat on the wall, Barney’s head was on your lap. They were delighted to have the company, you know, whether they knew them or not. Even though these are new people, the dogs loved the company. They saw the benefit of the company.”

Interestingly, Lucky the goat, which after the dogs was deemed the most popular animal, was raised in the ARC from a kid and bottle-fed by participants - “when I started it was on bottles. I was holding it” … “I just got attached to it from the start” (Chris). This scenario may have afforded participants the opportunity for more interaction and consequently a chance to develop a greater degree of empathy and attachment with it. This may also suggest that when there is a sense of two-way communication and the interaction involves a recognisable human caring activity i.e. bottle feeding, then participants can perhaps feel more engaged in the activity and possibly empathise more with the animal. Staff 1 supported this suggestion when noting that “the group seem to enjoy working with the touchy animals more … they seem to enjoy the affection more” Research undertaken using goats and disabled adults suggested that contact with the goats spontaneously increased joy of life in most participating clients and may improve quality of life and support therapy in those clients who accept the animals. The authors also stated that “goats are particularly socially responsive and gentle animals” and are therefore suited in therapeutic contexts (Scholl et al. 2008, p.1). Findings from social farming research have also indicated that a great number of participants found gratification in handling animals, an activity which involved feeding, grooming and looking after their living quarters (Johnston 2016).

It is also interesting to note the positive characterisation of the donkeys by participants as being “friendly” (Nicky) and “nice to look at” (Jackie), a perspective explained in other research - “Thanks to its physical structure, the donkey’s typical, open predisposition towards others provides a physically welcoming acceptance and thus an opportunity for contact and space sharing. When confronted with a new situation, the donkey does not run away from it but rather stops and ponders what to do” (De Rose et al 2011 Introduction, lines 22-25). Findings reported in the area of equestrian rehabilitation and onotherapy (therapy involving donkeys) on physical and psycho-social performances of adults affected by intellectual disability have also
indicated “improvement in the general autonomy and social integration” of participants and “benefits which persisted over time” (Borioni et al. 2012, p.285). On the other hand the pigs were designated least favourite animal by 3 participants - “Not a nice smell off them” (Tony) whilst there were a variety of animals named in other responses. Several participants said they had no specific or particular dislikes among the animals.

In terms of emotional well-being and in other areas it was clear that interaction with animals during the animal research study had a notable effect on ALD participants. Their responses broadly fell into four main categories; happiness, increase in confidence, relaxation and the acquisition of experience.

There were many responses which outlined happiness, enjoyment and improvement in ALD participants’ emotional well-being as a consequence of involvement in caring for the animals - “I feel more happier when I’m with animals and I feel like I’m more myself when I’m around them” … “I feel more closer to animals … than being around, you know, with people. I feel more closer. I can talk to them. Feel more comfortable” (Ruby) …“I just feel better about myself” (Terry) … “I really enjoyed it” … “I’m just happier here” (Chris). Feedback from participants, key workers and farmers working in the area of social farming has also indicated that “participants appeared to be happier and more relaxed after being on the farm each week” (Johnston 2016, p.14).

Another area where contact with the animals appeared to yield positive benefits was in responses which indicated increased confidence among ALD participants. Two ALD participants stated that they had “more confidence” (Reagan & Tony) as a result of working with the animals while another spoke of being “more confident” in the company of dogs (Jackie). Research in the area of social farming has also reported increased confidence among service-users as reported by support workers (Kinsella et al. 2014). The link between findings that suggested increased self-confidence among service users, including Adults with a Learning Disability, and its positive effect on lives outside the care farm setting has also been highlighted in Leck’s research (Leck 2013).

2 ALD participants also reported calming and relaxing effects linked to working with animals - “It calms you down, so it does” (William) … “You would be more relaxed when you work with them. It’s very cool” (Drew). Staff 1 also stated that Tony said that he felt “really relaxed” being around the dogs.
ALD participants also cited the acquisition of experience as a further positive effect of working with the animals - “I just got a wee bit of experience here and I like the animals” (Tony) … “it makes you feel a wee bit better” … “Learning different things” (Alex).

Research into the possible benefits of care-farming and contact with animals in a farming or rural environment on people with a range of impairments has showed evidence of beneficial influences reported through regular contact between goats and a small group of multiply disabled adults. (Scholl et al. 2008) Findings in this area have also suggested that people with learning disabilities have a broad appreciation of the farm elements, particularly the animals, and consider their ability to “actively participate in an inclusive and productive workplace” to be valuable (Leck 2013, P.179). While studies concerning care farming are becoming more widespread a note of caution has however been struck by Bragg et al. (2014) in relation to the then current state of research in the expression of their view that “As with many other forms of green-care, there is still a shortage of robust scientific research supporting care farming, despite the large amounts of positive anecdotal and qualitative data” (p.2).

One ALD participant indicated that working with the animals “keeps me busy and active” (Ashley) and another, whilst tendering a negative response to the question relating to the effect, if any, that the animals had upon him, had stated earlier, in a response to the question - ‘How did you feel when you were with the animals?’ - “I just like looking after them” (Nicky).

One other ALD participant, though stating that the animals had no effect upon him - “No. Not at all” - had previously stated - “Good” (Leslie) when asked - ‘How does looking after the animals make you feel as a person?’

The final ALD participant tendering a negative answer in relation to the possible effects of working with the animals had also earlier stated, in a response to the question ‘Would you like to work with animals again?’ - “Yes … because I love doing it” (Bernie).

All 16 carers stated that ALD participants had experienced positive effects through working with the animals in the ARC during their interviews at Week 20. No one indicated that it had no effect or that it had a negative effect. A wide range of positive emotional benefits were also identified by carers as accruing from the involvement of ALD participants in the animal research project. Firstly it was stated that taking care
of animals had a beneficial impact upon ALD participants which subsequently had a favourable effect on family life - “It was very very positive. Definitely and even at home here it was sort of calm. Do you know? She was happy so everyone was happy. Yes” (Ruby’s Carer). Research suggests that people with learning disabilities may experience positive changes in feelings of happiness in a care farm setting (Leck 2013) and in a recent social farming project involving 66 people with intellectual disabilities and mental health issues working on 20 farms designated from both the Republic of Ireland and Northern Ireland, service-users expressed both a “strong sense of achievement and accomplishment” and in the main a “high level of happiness and pride” in being involved in social farming (Kinsella et al. 2014, p.7).

Some carers deemed ALD participants to be, in some cases, more relaxed and calm as if undergoing a therapeutic experience - “I think he’s really enjoyed it, and felt it was very therapeutic working with the animals” (Terry’s Carer) …. “I did notice whenever he came home, now you’ll never get Danny completely down, but that really highness wasn’t there. He seemed more calm” (Danny’s Carer).

In terms of effecting changes to ALD participants, as observed by carers, involvement in caring for animals was credited with helping them to become more open and communicative at home, more thoughtful and understanding, sleep better, as well as reducing moody behaviour - “she didn’t have one tantrum the whole time she was there” (Ruby’s Carer).

Findings in connection with the use of assistance dogs with children with Autism Spectrum Disorder (ASD) have suggested a possible calming influence attributable to the presence of the dogs and a reduced occurrence of behavioural problems such as tantrums (Viau et al. 2010). Another study using assistance dogs with children with ASD reported that the presence of the dogs produced a reduction in anxiety, fewer tantrums, an increase in calmness, reduced parental stress and improved quality of life for both children and family (Burrows et al. 2008).

Positive benefits were also noted in the effect that involvement in caring for animals had upon one ALD participant’s lifestyle - “He was excited on a Sunday night having to go to work. If he had no work he’d sit there until five or six in the morning. You know. That’s just his life sitting up watching TV.” … “Well I know he really looked
forward to it and he never ever slept in for it. He was always up, dressed, washed” (Ryan’s Carer). This mirrors research in the area of social farming which found that:

“spending time on the farm gave service users a purpose and helped them to develop a routine (identified by 26% of service users). The farm gave some service users the opportunity to leave their home and/or place of residence and have a ‘purpose for getting up in the morning’ or to ‘get away’ from their traditional day service environment” (Kinsella et al. 2014 p.8).

Favourable effects on ALD participants were also cited by carers in relation to the changing attitudes to animals displayed by participants during the period of the research project. Some were observed to be more at ease, confident and more willing to engage with animals they encountered outside the project as were some in relation to pets at home. Positive and more empathetic changes were also noted in ALD participants’ attitudes towards animals in general - “I think that before now, if Chris had seen something killed by a car he would have gone, ‘So what?’ … but I think now, I needn’t say ‘I think’, I do know because we passed a badger on the road coming up that was killed and he goes, ‘Oh. That’s awful’. Whereas [previously] Chris would go, ‘So what?’” (Chris’s Carer). For another carer the ALD participant’s ability to cope with her fear of certain animals was a positive outcome of participation - “It’s just the way she deals with animals. Conquering her fear” (Morgan’s Carer).

No carer tendered a negative comment in relation to the effects ALD participants experienced through their interaction with the animals during the project. One carer stated that being on the project had no effect on the participant because the latter - “just goes his own way” (Drew’s Carer).

One carer neatly captured an aspect of the impact of caring for animals for a participant when he stated - “I know he enjoyed it and I know that he was looking forward to it. And I think anything like that at all that enhances somebody’s well-being it’s bound to have a positive impact on other things” (William’s Carer).

During the course of the project, Barney, a St. Bernard dog kennelled in the ARC, died, occasioning sadness among ALD participants - “Everybody was a bit down” (Tony) … “I was sad not to see it again, like” (Alex). This was substantiated by carers - “Whenever Barney passed away he was pretty upset about that” (Jo’s Carer). The effect that Barney’s death had upon many ALD participants, whether stated personally or reported through their carers, indicated a high level of attachment to a dog that was not their own and was cared for, in common, by everyone involved in
the animal research study. Staff 2 in describing the impact of Barney’s death upon ALD participants stated - “Some of them were really sad, especially wee Ruby. There were a few clients who were really sad.” Staff 1 described the mood of the group in the immediate aftermath of Barney’s death as being “low” as the participants were “gutted by the news.”

Findings related to the death of a pet have indicated that pet loss can be an event with wide-ranging and in some cases long-lasting symptoms for owners particularly if the attachment between the two was strong. Research has shown that grief is “often intense, and not insignificant” (Wrobel and Dye 2003, p.392). Another larger study which examined the impact of pet death upon married couples also reported that 40% of wives characterised the event as being “quite” or “extremely” disturbing while 28% of husbands characterised the death of the pet in the same terms. Both husbands and wives considered the pet's death to be, on average, “less stressful than the death of an immediate family member or a close friend but more stressful than the death of another relative” (Gage and Holcomb 1991, p.104). In a third study, findings, also in the area of pet loss and its effects on humans, retrospectively indicated significant levels of grief reactions (around 20%) after the death of a pet and stated that this may occasion “profound sadness, emptiness, longing, bitterness, and/or intrusive thoughts or memories of the deceased animal/pet” (Adrian et al. 2009, p.185). In the case of Barney’s death it was evident that some participants were negatively affected by the event, as self-reported or reported by carers and staff, and it was also apparent that even though Barney was no-one’s pet, a number of participants had formed a bond with the dog that was strong enough to occasion sadness upon his death.

When ALD participants were asked how they felt about the fact that the project was ending the majority of their number expressed a range of negative responses which clearly indicated feelings of sadness, disappointment and a clear sense of loss - [I’m] “Disappointed that it's not going to continue” (Nicky).

Around half of the ALD participants indicated they would “miss” people, animals, the place and work - “I’ll miss cleaning out the dogs and cats and all and working alongside them” [Why?] “Because I’m close friends with the dogs and cats” (Ashley) while others expressed a desire to continue working with animals in the project. The overwhelming majority of responses therefore indicated a great deal of attachment to the animal research project as expressed through their sadness at its
termination and a desire to see it continue. A number of participants stated they had no negative feelings about the fact that the project was ending - “If something else comes up it’s nice to try something different” (Ashley) … “it was just a change from working down in the Hort Centre” (Tony).

At the conclusion of the project, a majority of ALD participants stated that they had not changed their positive views on animals in the ARC during the course of the project while five participants reported that they now had a more positive view towards animals outside the ARC - “So when you saw an abandoned animal you could take it home. Whether it’s a dog or cat. You take it home and you just keep it.” [Would you always have done that or would you do it more because you’ve worked with animals here?] “Yes. Exactly.” (Drew; nodding to indicate the latter). This further establishes a link between the project and its effect on some ALD participants’ thinking which had transferred to wider society outside the animal research study. Participation in the animal research study may also have contributed to the stated desire on the part of some ALD participants to acquire a pet and may further indicate a greater degree of attachment to animals on their part.

The vast majority of ALD respondents described their time with the animals as a positive one with many highlighting the rapport that they had developed with the animals - “every time I look at a dog or something and the dog barks at me and the tail’s wagging and then I know it’s trying to tell me something. I know by the way it goes it’s trying to tell me something” (Ruby) … “I like helping them and looking after them and make sure they’re well looked after and nobody’s abusing them” (Leslie). Ruby’s remark in relation to the dog echoes Edward O. Wilson’s biophilia hypothesis which suggested that an innate affiliation exists in humans for nature and living things, an affiliation which is itself a product of biological evolution (Wilson 1984). There was clearly a sense of task satisfaction and a genuine concern for the well-being of the animals present in many responses given by ALD participants, an empathy which was reported as having been transferred by some participants to wider society outside the ARC. The affinity and bond evident between ALD participants and animals was clearly a personal one which suggested the promotion of more positive emotional well-being among participants.
4.4 Theme: Physical Well-Being

A bleak picture of the health of people with learning disabilities has emerged in recent years as evidenced in “Fit and Well: Changing Lives 2012-2022”, a consultation document outlining a strategic framework for public health in Northern Ireland which stated that:

“People with a learning disability are more likely to experience major illnesses, to develop them younger, and die of them sooner than the population as a whole. UK reports indicate they have higher rates of obesity, respiratory disease, some cancers, osteoporosis, dementia and epilepsy. It is estimated that people with learning disability are 58 times more likely to die prematurely” (DHSSPS 2012 cited in Black 2013, p.21)

In 2007 and 2012, Mencap also published two reports which highlighted the many failings it perceived in the NHS and exposed what it called the “unequal healthcare” and “institutional discrimination” that people with a learning disability often experienced in the healthcare system (Mencap: Death by Indifference 2007 p.2; Mencap: Death by indifference: 74 deaths and counting 2012). Shortly afterwards, an inquiry into the premature deaths of 247 people with learning disabilities aged four or older in South West England between 2010 and 2012 reported that the median age at death of men with learning disabilities was 65 years, 13 years sooner than the median age at which men in the general population died in England and Wales. The median age at which women with learning disabilities died was 63 years, 20 years sooner than the median age at which women in the general population died. The inquiry also stated that 37% of the deaths of people with a learning disability could have been prevented through good quality healthcare and were avoidable as compared to a figure of 13% for the general population in England and Wales (Heslop et al. 2014).

12 ALD participants in the animal research study when asked about their levels of physical activity initially indicated that they exercised, citing walking, going to the gym, skiing, golf and jogging as their chosen activities while 6 participants stated that they did not exercise.

The majority of carers concurred with ALD participants in stating that the latter exercised while a small number said that they did not. There was a small discrepancy between ALD participant responses and those of the carers which may be explained by the existence of diverse definitions of which activities constitute ‘exercise’.
People with a learning disability may have lifestyles which could be characterised as inactive and sedentary and consequently may place them at risk of developing diseases that may be prevented by involvement in more physical activity. A growing body of evidence however suggests that people with learning disabilities are afforded fewer opportunities to be active because of the existence of a “set of primary barriers” which hamper their participation in physical activities (Messent et al. 1999, p.409). Research also shows that the levels of obesity or body weight outside the healthy range in Adults with a Learning Disability are higher than those of the general population (Messent et al. 1998; Lea 1999; McGuire et al. 2007; Melville et al. 2008) with findings which indicate that women with learning disabilities are more likely than men to be obese (Melville et al. 2008) and in particular those women living in supported accommodation (Emerson 2005). Obesity in women, as well as being underweight in both men and women, has also been shown in a large scale study to be more common among adults with learning disabilities than in the general population (Bhaumik et al. 2008).

Research into levels of mean cardiorespiratory fitness levels among adults with mild and moderate learning disabilities have reported findings that showed that men scored 20% to 28% lower and women 42% lower than the average values for the general population (Messent et al. 1998).

It is generally recognised that adults with learning disabilities have low levels of physical activity (Messent et al. 1998; Finlayson et al. 2009; Emerson and Baines 2010; Finlayson et al. 2011) and it has therefore been proposed that more moderate to vigorous physical activity or exercise may confer improvements to the health of this particular group of people (Robertson et al. 2000). Studies have however highlighted many impediments to the employment and realisation of remedial action in this area. Barriers have been identified which may provide a rationale for low levels of physical activity among adults with learning disabilities, for instance, “transport needs, staffing ratios, financial resources and unclear policy guidelines for day and residential service provision” (Messent et al. 1998, p.17). In the area of supported accommodation, staff working with adults with learning disabilities have cited the main obstacles to physical activity for clients to be their “lack of understanding of the benefits of exercise; client mood; client lack of awareness of available options for physical activity; risk assessment issues and financial constraints” (Hawkins and Look 2006, p.220). Other findings in relation to the lack of
physical activity among adults with learning disabilities include a report that suggested that adults who live in family homes may experience fewer opportunities to engage in physical activities than those who live in supported accommodation (Felce et al. 2011) and another which reported that for Adults with a Learning Disability, their non-engagement in daytime opportunities, for instance, in a day centre setting or in employment, was “a predictive factor independent of clinical factors for low levels of regular physical activity” (Finlayson et al. 2009, p.244). While levels of physical activity among Adults with a Learning Disability may be low and opportunities for exercise less frequent than those reported in the general population, findings have also suggested that people with learning disabilities:

“demonstrated some understanding of what it means to be healthy and were aware of aspects of healthy lifestyles (engaging in exercise and physical activity, eating well, not smoking and drinking too much, the importance of prescribed medication and wellbeing), the consequences of unhealthy behaviours (gaining weight, illness), and of the need for moderation” (Caton et al. 2012, p.257).

During the interviews conducted in Week 20, just under half of ALD participants cited dog-walking as their favourite activity (8) while 12 carers stated that ALD participants had mentioned walking the dogs as part of the project. When carers were asked if they believed that participants would consider walking the dogs as a form of exercise, 6 of their number stated that ALD participants would while 4 stated that they would not and 3 were unsure. Findings by Finlayson et al. (2009) have shown that one of the most common types of regular physical activity undertaken by adults with learning disabilities was walking with research indicating that men and women with learning disabilities, in terms of physical activities, were more likely to be involved in those activities characterised as “light”, for example, gentle walking and hydrotherapy. The same study however, also reported that adults with learning disabilities were not walking at a sufficient intensity level nor were they walking for long enough periods of time in relation to the target levels of regular physical activity currently recommended for adults. The findings that dog-walking was the favourite activity among 8 ALD participants in the ARC coupled with the many suggestions from research that this activity is physically beneficial is certainly interesting and may further highlight another positive impact of caring for animals for Adults with a Learning Disability. There is some evidence to suggest that dog-walking can play a role in increasing levels of physical activity among owners (Cutt et al. 2008),
increase the performance of a physical activity among a small group of senior adults (Herbert and Greene 2001) and is potentially more physically beneficial for senior adults than walking with other adults (Johnson et al. 2010). Research by Dunn et al. (1999) has also reported that a lifestyle physical activity intervention such as walking is as effective as a structured exercise program in improving physical activity, cardio respiratory fitness and blood pressure among previously sedentary healthy adults. It has been suggested that this in turn may increase the range of options for increased physical activity and fitness available to Adults with a Learning Disability.

All 18 ALD participants in the study reported that they enjoyed working outdoors.

Research findings indicate that “green exercise”, variously defined as “activity in the presence of nature” (Barton and Pretty 2010, p.3947) and “physical exercise performed in (relatively) natural environments” (Neill 2009, slide 4) can have positive short and long-term health outcomes as evidenced in the meta-analysis showing its positive effects on both self-esteem and mood in participants (Barton and Pretty 2010). The term “green care” has been coined to cover a wide range of nature-based interventions (Sempik and Bragg 2013) including Animal Assisted Interventions, care farming, green exercise and ecotherapy. Ecotherapy, which itself is also called “green care”, is defined as one of a range of nature-based interventions in a variety of natural contexts and employs initiatives which usually comprise:

“a facilitated, specific intervention, for a particular participant, rather than simply ‘an experience in nature’ for the general public. Ecotherapy approaches are ‘therapeutic’ in nature although some ecotherapy initiatives also include formal therapy (e.g. counselling sessions, CBT, psychotherapy etc.) as an integral part of the programme” (Bragg, et al. 2013, p.4).

The Ecominds project which used ecotherapy interventions has produced research suggesting that its employment may be beneficial for people with learning disabilities in that it enables them to participate in their community whilst engaging them in purposeful activity in physically active settings (Bragg et al. 2013). Involvement in regular physical activity has also been found to reduce the risks of depression and in the area of mental health may have beneficial effects in helping to reduce anxiety as well as enhancing both mood and self-esteem (Department of Health 2005).

ALD participants in the animal research study clearly enjoyed working outdoors and in doing so engaged in a range of physical activities which according to many of the studies cited may have favourable effects on both their physical and mental well-
being. Staff 1 in reporting that - “Chris and Darren, they were just chatting in general, and they said that they loved all the exercise that the animals provide them with” perhaps flagged up some of the benefits that may be derived by Adults with a Learning Disability from interacting with and caring for animals in a working environment in terms of their physical and emotional well-being.

4.5 Theme – Self Determination and Social Inclusion
Both the White Paper, “Valuing People” and “Equal Lives: Review of Policy and Services for People with a Learning Disability in Northern Ireland”, published in 2001 and 2005 respectively, in seeking to enable people with learning disabilities to have as much control of their lives as possible, cited increased choice as one of the key objectives for this group (Department of Health 2001; DHSSPS 2005). This was restated in the subsequent “Valuing People Now” strategy document published in 2009 which challenged public services and everyone involved in working with people with a learning disability “to take an approach which starts with each individual, their wishes, aspirations and needs, and which seeks to give them control and choice over the support they need and the lives they lead” (Department of Health 2009 p.4). It was also recognised that people with learning disabilities experienced problems in the area of decision-making, sometimes having little involvement in decision-making in their lives (Department of Health 2001) and as a consequence they therefore needed empowerment in order to make those decisions (DHSSPS 2005). Research elsewhere has also identified people with learning disabilities as having fewer opportunities to make choices (Stancliffe and Parmenter 1999) as well as making fewer choices on everyday matters than people without a learning disability (Kishi et al. 1988). A large study involving 1190 people with a learning disability, their parents, carers and family members in Northern Ireland reported that “while most people with a learning disability felt that they had a choice of activities when at the day service or centre they attended, few identified that they had a choice in where they actually spent their day or were aware of the full range of options available to them” (Patient and Client Council (N.I.) 2011, p.2). A small case study which examined the choice-making opportunities in the lives of two older people with severe learning difficulties who lived in a community setting also reported that they “lacked many choice-making opportunities typically available to people without disabilities” and stated that they did not have a “meaningful degree of influence over
decisions regarding their residence, the people with whom they lived, their personal finances or their daily routines” (Treece et al. 1999, p.791). This lack of decision-making was also found to be evident in the area of healthcare where in a small study, Adults with a Learning Disability “generally identified 'others' as being responsible for making their healthcare choices” (Ferguson et al. 2011, p.73), a finding supported by other large scale research which reported that only a small proportion of adults with learning disabilities made “unassisted” or independent choices concerning medical consent (Wehmeyer and Metzler 1995, p.115). People with learning disabilities, as suggested by West and Parent (1992), may often be excluded from making choices about their health by healthcare professionals and carers as a result of organisational and attitudinal barriers rather than the limitations and impairments associated with the disability itself and may, as a consequence, feel powerless and lack self-direction.

In relation to their finances and the area of financial decision-making a similar picture emerges with evidence that Adults with a Learning Disability have little control of their own resources. Research has indicated that over three quarters of ALD participants in separate studies relied on carers and parents to control their finances or said they got some help managing their money (Emerson et al. 2005; Williams et al. 2007) while just over half of the people interviewed said someone else decided how much money they could spend each week and just over one in ten said that someone else decided what they could spend their money on (Emerson et al. 2005). Suto et al. (2005) have also indicated that whilst the financial decision-making abilities of participants with intellectual disabilities were generally weaker than those of other research participants deemed to be representative of both the “general population” and “very able” individuals, the differences were not distinct with many individuals adjudged able to make at least some personal financial decisions.

In terms of where people with learning disabilities lived, a lack of choice evidenced itself in the findings that two thirds of those in supported accommodation felt that they had no choice over who they lived with while just over half felt they had no choice concerning where they lived (Emerson et al. 2005). Research has also suggested that among Adults with a Learning Disability who lived in collective and segregated living or work settings, their opportunities for making choices and decisions were restricted and fewer, thus limiting their self-determination (Stancliffe and Wehmeyer 1995; Wehmeyer and Bolding 2001).
It was evident in the initial Pre-Week 1 interviews that ALD participants, according to their carers, in the main exercised diverse levels of decision-making in their lives and were therefore independent, to varying extents, in making choices in those lives. The ALD participants had differing degrees of learning disability and their carers had a multiplicity of opinions on the best way forward for the person they cared for in a wide range of areas. The responses in relation to levels of decision-making clearly indicated this diversity. Some responses reflected the fact that ALD participants were to a greater degree living independently of carers whilst others indicated a fairly high level of dependency on carers on the part of participants - “I would be confident that he could take decisions for himself on most things. There are certainly other areas where he would need support” (Darren’s Carer) … “He’ll not take a decision on his own without getting it sanctioned” (Jo’s Carer) … “He would be very independent… he would be very much able to take ownership and different things” (Ashley’s Carer). When again asked on Week 20 about the areas and levels of decision-making made by participants, the majority of carers once more indicated that ALD participants had varying degrees of independence in terms of decision-making with varying degrees of input coming from the carers themselves - “Yes. We would try and make him as much informed, and we give him as much information for him to make informed decisions” (Terry’s Carer) … “Yes. He’s mainly more responsible for money issues” (Jo’s Carer). The responses of carers to the question of ALD participant self-determination and decision-making from Weeks 1 and 20 broadly tallied, with a clear majority of carers stating on both occasions that ALD participants take decisions for themselves on a wide range of issues as did they outline a sliding scale of interventions on their part in order to inform that decision-making. A small number of carers when asked whether participants took decisions stated that they did not - “Not really. No. The wrong ones. Yeah” (Chris’s Carer).

If legislators are to realise their aim of promoting choice for people with learning disabilities and empower them to have as much control of their lives as possible (Department of Health 2001; DHSSPS 2005; Department of Health 2009) then much consideration will need to be given to some of the important issues that empowerment raises. Hollomotz (2014) stated that empowerment of adults with learning difficulties carries an imperative which is enablement on their part to make choices and highlighted a problematic area in her observation that - “Assisting in
decision making therefore often becomes a challenging balancing act between safeguarding and encouraging independence” (p.247).

The underlying friction between the safety of service-users and their empowerment was manifested in findings from a small research study by Alaszewski and Alaszewski (2002) in the area of learning disabilities which looked at the perceptions of risk held by service-users, carers and professionals which indicated some differences of opinion relating to the nature of risk itself. Adults with learning disabilities interviewed “often seemed willing to accept that others made judgements and decisions on their behalf” (p.60) while “the vast majority of family carers, particularly those connected to day services, incorporated risk into their everyday lives because they recognized the importance of taking risks for the personal development and freedom of their relatives with learning disabilities” (p.58). Some carers indicated that “their relatives with learning disabilities were incapable of making informed decisions” (p.59) while a “small but vocal minority of parents strongly expressed the view that their relative was a perpetual child” (p.59).

Professionals, however, were more amenable to risk-taking in relation to adults with learning disabilities deeming it an opportunity for service-users “to develop as individuals” (p.60) yet mindful of their duty of care they “developed balancing strategies to accommodate both their clients right to develop by taking risks and their own responsibilities as professional carers” (p.60)

“Valuing People”, “Equal Lives” and “Valuing People Now” also acknowledged the contribution and impact that carers, family and other health professionals have in terms of shaping the lifestyle of people with learning disabilities (Department of Health 2001; DHSSPS 2005; Department of Health 2009) and while that contribution may be in the main positive, Smyth and Bell (2006) flagged up:

   “the impact which the carer’s own, perhaps unconscious personal choices, beliefs and ideologies may have on the ‘choices’ made by people with learning disabilities, and more worryingly, on the ‘choices’ offered to them” (p.227).

Research, as previously outlined, suggests that opportunities for making choices and decisions are both restricted and fewer for Adults with a Learning Disability operating in collective and segregated living or work settings while “normalised, community-based environments” have been reported to bolster and increase self-determination and consequently may lead to a better quality of life (Wehmeyer and Bolding 2001, p.371). Also in the area of self-determination Kishi et al. (1988) have suggested that
care should also be exercised in making sure that passive acceptance or compliance by people with a learning disability is itself not interpreted as choice.

The proposal that increased self-determination, as one of eight core dimensions of Quality of Life, may contribute to an increase in general well-being for adults with learning disabilities (Schalock 1996) has been substantiated by findings which indicated that people with learning disabilities who scored higher on the Quality of Life Questionnaire were also identified as being more self-determined (Wehmeyer and Schwartz 1998; Lachapelle et al. 2005). These findings suggested that people who could exercise greater control in their lives were more likely to have a higher quality of life. Concerns have also been raised in relation to the intellectual ability of people with learning disabilities and its possible effect on the development of self-determination; research however has indicated that while intellectual ability is a factor which may add to one's capacity to become self-determined, intelligence level, alone, cannot account for variations in levels of self-determination. This was evidenced in comparisons between two groups of students with learning disability on outcomes at 1 and 3 years post high school graduation which indicated that students who were more self-determined fared better across major life categories, including employment and access to health and other benefits, financial independence, and independent living (Wehmeyer and Palmer 2003). Other research with a large group of adults with intellectual disabilities or developmental disabilities also reported that intellectual capacity did not contribute significantly to either self-determination or autonomous functioning among the group and that opportunities to make choices made a significant contribution to an increase in self-determination and autonomy among the group (Wehmeyer and Garner 2003).

When asked if they had noticed any differences in how ALD participants made decisions over the course of the research project 5 carers stated that they had detected changes which some linked to a growth in confidence among participants - "He seems to be more confident in making decisions. He's a bit more forthcoming in chatting to staff about any issues that he has" (Nicky's Carer) … “I have noticed him making decisions more independently, so I have, but he still will crave the ‘Have I made the right decision?’ Some decisions he makes on his own and goes on ahead; whether right or wrong. I don’t mind that because if you don’t make a mistake you’re
not gonna learn anything. For the period of the programme he would have grown in confidence on it” (Jo’s Carer).

1 carer stated that the participant was - “more alert about decisions now” (Reagan’s Carer) while 6 carers either said that they saw no change in the way decisions were made or thought the process was the same - “I find him more or less the same” (Ryan’s Carer).

Some evidence may therefore exist of a positive effect on self-determination in the area of decision-making among a number of ALD participants and no discernible change among a comparable number of others. Research elsewhere suggests that participants in social farming also became more confident as evidenced by increased communication and increased skills with participants’ confidence manifesting itself in other areas of their lives (Johnston 2016).

Research into substitute decision-making by support workers in residential care homes for adults with learning disabilities has also suggested that by according their own personal values and life experiences a position of pre-eminence in the decision-making process, they may be contributing to the creation of a situation where they are “arguably blind to the residents, their needs and the lives that they are able to lead” (Dunn et al. 2010, p.156). Another study, which reported upon issues around reconciling empowerment with protection facing parents of young people with relatively severe learning disabilities, stated that a range of approaches were utilised including those of:

“trying to find a ‘happy medium’ between being over-protective and letting go; questioning the young person’s capacity to take meaningful decisions, asserting their responsibility to protect in the face of ongoing vulnerability and dependency of their young person, contesting or accepting expert opinion (but always in terms of acting in the young person’s best interests)” (Almack et al.2009, p.296).

Government thinking in this area was also evident in the statement that:

"Families and other carers need to be supported to enable people with a learning disability to take managed risks and lead more independent lives" (DHSSPS 2005 1.13, p.7).

When ALD participants were asked about the level of control they felt they had in both the project and in their own lives there were varying degrees of empowerment cited ranging from those who said they had no control to those who said they had some - “There is always people who are in charge so we had to do what they say” (Drew) … “Some. A wee bit of control. Not a whole lot because the members of staff
had some of the control of what you do or don’t do” (Jackie) … “I felt that I could control what I was doing and felt more comfortable in myself like going ‘Oh, I’m gonna do this and do that’ ” (Ruby).

In relation to control over other areas in life it was difficult to assess the true level of independence afforded to or exercised by the respondents based on the detail supplied via the interviews with them. It was clear however that the majority of ALD participants believed that they did have some measure of control and independence - “I go out to Mid- Ulster shopping centre. I would walk around on my own” (Danny) … “I take care of all of my life independently. Even though I’ve got Eva to support me too. As well as my family to support me” (Ashley). No one expressed a desire to have more control over the other areas in their lives outside the project.

When we explored the dreams and hopes of Adults with a Learning Disability in relation to their future lives, the range of responses was broad with 5 participants expressing an interest in working with animals - “Well, in the future I’d like to work on my own farm, like a dog breeder. You could breed dogs” (Drew) … “I’d like to work here” [the ARC] (Jo) while the remainder outlined a full range of work activities, specific and general, in diverse fields - “I would love to work with people with special needs … I’d love that” (Reagan) … “Anything. Do my driving test and stuff. And get a car and all.” … “Hard work and get plenty of money” (Ryan) … “do outside work like doing, brushing up things and all” (Bernie) …“Play better at golf” (Darren). The fact that a substantial number of ALD participants indicated an interest in working with animals is unsurprising and broadly mirrors findings from a cross-border project conducted in Northern Ireland and the Republic of Ireland that suggested that the experience of social farming led some participants to articulate their desire to continue in the area of agriculture and in doing so perhaps secure employment in the sector (Kinsella et al. 2014). The range of jobs and lifestyles sought by ALD participants in the ARC as a whole may well have been typical of responses given by any group of young adults who were asked what their aims or goals were for the future.

In relation to their assessment of the likelihood of achieving the goals they had outlined, 4 ALD participants took a negative view summed up by one as unlikely as it required - “Just too much managing” (Alex). 6 however took a more positive view -
“Yeah. If I put my mind to it. Yes. But my mind doesn’t be settled for too long” (Reagan) [Do you ever think that would happen?] “It could do yeah if I pushed hard enough for it” (Leslie) while 3 did not know if they could achieve their goal - “It’s hard knowing” (Ashley). The fact that around a third of ALD participants took the view that their goals were achievable may be said to show both optimism and a sense of self-determination.

In terms of knowing what to do to achieve their aims, 8 ALD participants gave answers which in the main indicated that they were aware of some of the practical and personal requirements which would help enable them to succeed. There was a measure of self-awareness, common sense and honesty in a number of the statements made by participants in relation to how those goals could be achieved ranging from “I don’t know. I could ask about how to do that” (Chris) and “Well, try and do things for yourself” (William) to “You’d have to join a college. An art college for learning the skills” (Ashley) and “I’d have to get off my ass and do it” (Reagan).

The lack of employment among Adults with a Learning Disability continues to be an area of some concern for government. “Valuing People" acknowledged that “[people with learning disabilities] are amongst the most socially excluded and vulnerable people in Britain today. Very few have jobs” (Department of Health 2001, p.2) while “Equal Lives” in recognising that employment opportunities for this group were not the same also observed that “fewer people with a learning disability achieve accredited qualifications” (DHSSPS 2005, 3.70, p.29). “Valuing People Now” subsequently prioritised action across government “to support more people with learning disabilities into real jobs” (Department of Health 2009, p.2).

The employment rate of people with intellectual disabilities however remains low with estimates ranging from 6.6% (Emerson et al. 2012) to 10% (Department of Health 2009) with paid or self-employment figures for working age adults with intellectual disabilities in England for 2012/2013 estimated to have been 9,845, or 7% of that group. Most of those (70.3%) in paid/self-employment were also found to be working for less than 16 hours per week (Health and Social Care Information Centre 2015).

In terms of earnings, figures for 2008 showed that overall, only 17% of people with mild to moderate learning disabilities and just 4% of people with severe learning disabilities in England who were of working age were reported to be earning more than £100 per week (Emerson and Hatton 2008). Findings in England also indicated that 65% of people with a learning disability wanted to work (Emerson et al. 2005).
while in a survey of young people with severe learning disabilities carried out in Belfast 90% of their number indicated that their preference would be to have some type of paid employment after leaving school (Smyth and McConkey 2003). Likewise a survey involving 275 people with learning disabilities who attended three day-centres in Belfast suggested that one-third hoped to gain employment while their key-workers believed that one in five would be able to hold down a job (McConkey and Mezza 2000). The desire to have paid work has also been evidenced in research involving 400 people with a learning disability who had moved from institutional to community care which reported that securing paid employment and having more friends were important ambitions among their number (Forrester-Jones et al. 2002). This was further reinforced by findings from a large survey of the opinions of a range of 1190 people with a learning disability, parents, carers and family members in Northern Ireland which highlighted the importance of employment among this section of the community:

“Working and paid employment are very important issues for people with a learning disability, parents and carers. People without a job frequently said they would like to work, and those with a job said they would like to work more hours” (Patient and Client Council (N.I.) 2011, p.100).

There was certainly clear evidence of a desire among Adults with a Learning Disability in the animal research study to find a job or work to do - “I’d like to get a good job” (Nicky) … “I would love to work with people with special needs … I’d love that” (Reagan) … “I’d like to get a job in a hotel” (Jackie).

Research has suggested that Adults with a Learning Disability who gain employment may have a better chance of improving their quality of life in a number of areas. Findings have suggested that a small group of 20 adults with intellectual disabilities who had worked in supported employment for 1 year had greater opportunities for developing relationships and had a greater number of social contacts drawn in the main from community contexts (Forrester-Jones et al. 2004). Other research which drew on the views expressed by a group of intellectually disabled participants has suggested that supported employment may contribute to positive self-development among participants and for some it may be an important contributor in terms of their social integration and well-being (Cramm et al. 2009). Employment, as an activity which has economic and social value, is one dimension of the concept of social inclusion (Burchardt et al. 2002) while unemployment has been identified as one of
the many contributing factors to widespread social exclusion in the UK (House of Lords et al. 2008).

The desire for social inclusion is often articulated by people with learning disability (Emerson et al. 2005) and whilst work itself cannot ensure the formation of social relationships it can offer increased opportunities for meeting people not connected with the provision of social or learning disability services (Forrester-Jones et al. 2004). In relation to the animal research study carried out in the ARC per se, there were very limited opportunities present in its set-up for participants to make and develop relationships with people outside of those who attended the ARC and staff who worked there and while dog-walking activities took place on the rural roads outside the centre, the chances of making contact with other people in social settings were slim. Consequently, while the impact of caring for animals for participants was felt in the development of new friendships among that group, it did not extend to the level of social inclusion which may, for example, result from involvement in supported employment in the community.

It has been reported that adults with learning disabilities may experience problems and difficulties in both advanced educational and employment contexts (McCue 1990) and research with a group of 112 adults with mild to moderate developmental disabilities has cited a range of barriers to their maintaining employment including interpersonal and behaviour problems and inattention with other issues in the areas of attendance, quality of work and relations with others being suggested as reasons for around 20% of involuntary work terminations (Lemaire and Mallik 2008). Other research involving 275 people with severe learning disabilities drawn from three centres reported staff identification of poor concentration, communication skills and motivation as barriers to securing paid employment among service-users (McConkey and Mezza 2000).

Hall (2004) has suggested that adults with learning disabilities, if employed, are also more likely to occupy low-paid, low-status jobs and may be the subject of neglect and abuse from both employers and fellow employees. More recent findings in the area of work have indicated that the most common real paid occupations among adults with learning disabilities were in the food and drink industry and retail (McGlinchey et al. 2013).

Because adults with learning disabilities experience greater difficulty securing paid employment they are consequently more likely to live with their parents longer than
peers without learning disabilities (May and Simpson 2003) but it has also been suggested that in that environment the presence of some particular family characteristics could enhance the chances of success in attaining and maintaining employment, for example those of moral support and practical assistance (Dixon and Reddcliff 2001). A report to Ministers and the Learning Disability Task Force from the Working Group on Learning Disabilities and Employment however expressed the view that “low expectations of work among people with learning disabilities themselves, their carers and ‘professionals’” could affect employment for people with learning disabilities (Department for Work and Pensions 2006, 1.13, p.12).

Apprehension about employment opportunities has been recorded among parents and carers and attributed to concerns among their number that they may be setting adults with learning disabilities up to fail as they may not have the ability to work or in placing them in a commercial working environment they may be exposing them to situations where they could be bullied (St Helen’s-Scrutiny Review 2012). Concerns about the impact that taking up paid employment will have on a person’s financial benefits could also prove to be a major disincentive to people with learning disabilities getting a job (Department of Health 1999; DHSSPS (2005); Patient and Client Council (N.I.) 2011; St Helen’s-Scrutiny Review 2012).

In an effort to address the problem of unemployment among people with learning disabilities the Department for Employment and Learning in Northern Ireland devised a strategy which proposed the introduction of a Supported Employment Model which “will be a person-centred, tailored, specialist and potentially long term offer of support, targeted at those people, who, despite their disability related barriers, are motivated and capable of achieving paid employment in the open labour market” (Department for Employment and Learning 2015, p.18). The clear offer of bespoke support in finding employment for this group in this statement to a degree reflected the findings of an earlier Literature Review on Attitudes towards Disability carried out by the National Disability Authority (Ireland) which highlighted “the vital role that agencies between employer and potential employees can play particularly in the case of ensuring employment opportunities for people with intellectual disabilities” (National Disability Authority 2007 p.46). The hope offered by such agencies was evident in the following exchange - “Hopefully the programme that I’m on now with ALDAID, hopefully I’ll get something from that” [Are you feeling positive about it?] “Yes” (Ryan).
Another area which has an impact on the likelihood of Adults with a Learning Disability gaining employment is that of education and training where findings have shown that only 1 in 3 adults with a learning disability take part in any education or training with cuts in funding reducing this number even further (Mencap 2015).

Statistics contained in the DHSSPS (2005) “Equal Lives” review of mental health and learning disability show the average level of enrolments in Further Education (FE) was reported to be lower in Northern Ireland, 4.1% in 1999, as compared with 5.7% in England, while the number of students enrolled on full-time courses was also lower, 32% in 2002 in Northern Ireland (ranging from 10% to 67% across the Colleges) as compared with 45% in England in 1999 (p.47). By 2002/03, according to figures supplied to the “Equal Lives” review by the Department for Employment and Learning, the level of enrolments for people with any form of learning difficulty or disability had increased to 5.3% in FE colleges in Northern Ireland ranging from 1% to 13% across the 16 Colleges there (p.32).

Findings have suggested that people with a learning disability really enjoy college, however concern has been expressed concerning the shortage of new educational courses available for them (Patient and Client Council (N.I.) 2011). In relation to gaining qualifications and perhaps employment one of the difficulties facing Adults with a Learning Disability in relation to participating in college courses was touched upon by a participant who having enrolled on a bricklaying course at his local Further Education college subsequently withdrew from it saying - “I was just in the wrong league and I thought, the first day I was in the Tech I was in the wrong class and everybody was ... wild smarter than me and the next minute I was just grabbing a pen” (Alex).

Scope for the development of learning opportunities for Adults with a Learning Disability has been recognised by the government within Further Education (FE) in Northern Ireland (The Bamford Review of Mental Health and Learning Disability (Northern Ireland) 2007) but funding restrictions in this sector, it has been claimed, may reduce opportunities for people, with and without learning difficulties, to enhance their employability and lessen their ability to access to a wider liberal education (Stonier 2013). The link between Further Education College courses and placements, as well as those provided by schools or Day Centres, and the desire on the part of those participating to acquire paid work, has been evidenced in the findings of two local studies (McConkey and Mezza 2000; Smyth and McConkey...
The positive impact of mainstream employment on adults with learning disabilities has also been well documented with findings from a longitudinal study which suggested that it increases self-worth, status, confidence and independence among adults with mild to borderline learning disabilities (Jahoda et al. 2009) while other research from a large study into the effect of open and sheltered employment upon quality of life among adults with intellectual disability yielded statistically significant higher quality of life scores among people placed in paid employment, particularly those with a high functional work ability in open employment (Kober and Eggleton 2005). An improvement in skills has also been reported among people with intellectual disabilities who interact in environments such as mainstream work settings less characterised by assemblages which are, for instance, the norm in day-centres for adults with intellectual disabilities (Beadle-Brown and Forrester-Jones 2003). In other research, benefits from involvement in paid work for adults with learning disabilities were also identified by staff working with them in the form of increases in self-esteem, independence and confidence (McConkey and Mezza 2000).

It could be said that ALD participants who cared for animals during the animal research project demonstrated a degree of educational attainment as acknowledged by staff and some of their number - “Working with animals I learn stuff. Like, different stuff. It’s good for you.” (Terry) … “It was something new to learn and do.” (Chris) … “Because I felt good because week to week I got different jobs, different models to do.” (Danny) … [What did you learn from looking after the animals?] “Learning how to have more ability to do things for yourself…to learn how to look after them” (Ruby).

While it is true to say that the animal research project did not constitute paid employment many positive benefits attributed to it in various research studies were evidenced over the course of the study, for example, opportunities for developing work and social relationships, improved well-being, acquisition of skills as well as increases in confidence, self-esteem and independence.

5.0 Limitations to this study

- This was a small pilot study which included results from only one location.
• Adults with a Learning Disability, their carers and staff were interviewed on a “before and after” basis and the study did not include a control group. It is therefore problematic to assert that any positive or negative impacts were solely attributable to caring for animals as a wide range of other factors fed into the process.

• Although this research suggests that people can experience a positive improvement in several quality of life domains through caring for animals, it cannot prove that this improvement would not have occurred naturally over time, or tell us how the improvements seen compare with any other forms of exercise or leisure activity.

6.0 Conclusions and Recommendations
This exploratory pilot study provides qualitative evidence which suggests that communal care of animals in a non-domestic setting by Adults with a Learning Disabilities has had, in the main, a positive impact upon them and by association their carers. The findings suggest that Adults with a Learning Disability can derive many positive benefits from the activity of caring for a range of animals in a communal non-domestic setting such as the ARC:

ALD participants experienced and clearly enjoyed working in an outdoor environment where they learned how to cope with, care for and manage familiar and possibly unfamiliar animals.

In caring for animals which were not their pets, ALD participants were given both responsibility and trust and in empathising with the animals they manifested many examples of positive behaviour and thinking.

They learned and actively practised new skills whilst engaging in meaningful and productive work activities which they evidently valued. There was also a recognition among a number of group members that the skills they learned were transferable.

They interacted positively with others in a work setting as evidenced by the large majority who stated that they favoured the practice of working in a group, recognised its importance when working with animals, indicated that they were more willing to work with others and believed that they could work better with others after having
taken part in the animal research study. A large number of Adults with a Learning Disability also indicated that they could now work more independently.

Most of the Adults with a Learning Disability reported that they had made new friends during the animal research study and spoke positively about them. Carers corroborated this. This may indicate that communal settings, in which Adults with a Learning Disability can work together with a common purpose, can provide opportunities for them to make and maintain friendships.

The findings suggest that Adults with a Learning Disability derived a great deal of happiness, satisfaction and enjoyment from their interaction with the animals in a group setting. It was evident that bonds were forged between ALD participants and animals during the course of the research.

Carers reported that Adults with a Learning disability exhibited increased self-confidence, had more input in decision-making, were calmer and showed more empathy towards animals as a result of participating in the research study.

Positive improvements in mood and lifestyle among Adults with a Learning Disability were also noted by some carers as were increased levels of patience, independence, communication and responsibility reported by Adults with a Learning Disability, their carers and staff. ALD participants were given an opportunity to experience a different environment, one where many as a consequence felt they could engage in meaningful and productive work activities in an outdoor setting. They were also afforded the chance to actively interact with others in a group environment whilst learning how to cope with, care for and manage familiar and possibly unfamiliar animals as part of a team, alone or both.

Accordingly, the researchers would wish to make a number of recommendations for research, policy and practice which emerged from our consideration of the findings:

- The bedrock of our research was the principle, stated in the Bamford Review (DHSSPS (2005) “Equal Lives”), that it is important to seek and include the opinions of Adults with a Learning Disability on subjects affecting their lives. The researchers believe that the variety and quality of the responses during interviews further underlined the importance of doing so.
• It is suggested that settings similar to the one that was used for our research at the ARC could be utilised or even created to afford adults with learning disabilities and other groups of vulnerable adults the opportunity to care for animals.

• The incorporation of more activities that involve animal-human interaction into health and social care referral systems could be further explored with perhaps initial participant involvement in working in animal sanctuaries similar to this USPCA and Trust-based project with perhaps an option to progress to wider participation in social care farming.

• In this research the high number of new friendships adjudged to have been made suggests a clear willingness and ability on the part of the majority of ALD participants to engage socially and articulate the positive feelings accruing from establishing those relationships. The large number of new friendships made may indicate readiness on the part of the participants to develop personal relationships through the social engagement afforded by working in a group with others.

• Research has highlighted that death rates among Adults with a Learning Disability have a tendency to exceed those of the general population (McGuigan et al. 1995) as has it been proposed that more moderate to vigorous physical activity or exercise may confer improvements to the health of this particular group of people (Robertson et al. 2000). Consequently it may be argued that the promotion of any activity for Adults with a Learning Disability that encourages greater physical activity in an outdoor setting, such as that provided in the ARC animal research study, may prove beneficial for the physical and mental well-being of this group of people. And if we consider the positive findings among ALD participants regarding their personal and social development, as well as improvements in emotional well-being, we may further appreciate the positive outcomes which may accrue from a wider availability of caring activities that involve animal-human interaction.
• There is a need to undertake further large-scale research in order to produce findings on health and well-being outcomes as well as the potential cost-benefit derived from activities involving animal-human care activities. Such research would also benefit from the incorporation of standardised validated measures of client outcomes in order to facilitate valid comparisons between different studies.

• The researchers believe that Adults with a Learning Disability should be given greater choices and opportunities to try and experience new things. This, it was felt, was substantiated by the findings which suggested that Adults with a Learning Disability, after taking part in caring activities with animals, demonstrated positive progress, for example, in the areas of personal development, interpersonal relations, self-determination and emotional well-being.

The impact of participation by Adults with a Learning Disability in the animal research study and caring for animals was certainly a positive one for many of their number and perhaps best captured in the words of a carer who offered the following after the completion of the study:

“Anything that William told me about it was positive, that he enjoyed it, he was relating well to people. He enjoyed it to the extent actually that I was working with him actively, recently, looking at timetables because he wanted to go down and continue doing it, off his own bat and at his own cost … so obviously if he’s prepared to do that off his own bat, he’s getting something out of it that’s over and above” (William’s Carer).
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8.0 APPENDICES

8.1 Appendix 1

HSC
Southern Health and Social Care Trust

Research Study

Participant Information Sheet
A research study is being carried out by some people including Eilish and Gene. The study will last 20 weeks.

This means they want to find out how you feel about working with animals.

Eilish and Gene would like you to help them with the research.

Eilish and Gene want to ask you questions and they will record your answers because you will be going to the ARC and are going to work with the animals there. They will ask you questions before you start working with the animals and again after 20 weeks. If you would like to take part please tell your key worker.
When Eilish and Gene have finished asking you questions, they will write a report.

The report will help us to find out how you feel about working with animals.

The report will help us think about the future.

Eilish and Gene might write what you say in the report.

Eilish and Gene might write what your carer tells us in the report.
Eilish and Gene will not use your name in the report.

If you don't want to answer the questions, that's ok.

If you want to stop answering the questions, that's ok, just tell Eilish or Gene that you want them to stop and they will help you.

If there is a problem or you are worried about the questions, please tell Eilish and Gene and if they can't help you they can contact your key worker, family/ carer to help you.
You can talk to Noreen McComiskey if you do not like the way Eilish or Gene have asked you the questions. Noreen's telephone number is: 02830825145.

You can talk to your social worker, community nurse, friends or family about the research.

The Southern Health and Social Care Trust asked us to do this research study.

A group of people called The Research Ethics Committee read the questions.
The Research Ethics Committee was happy with the questions.

Another group of people called the Southern Health and Social Care Trust Research Governance Committee was also happy with the questions.

You will have to sign 1 consent form.

Giving consent means you are happy to answer questions about working with animals at the ARC.

Giving consent means you are happy we write a report about working with animals.
You will sign a consent form.

Your family member/carer will also be asked to take part and sign a consent form.

If you want any more information please talk to Eilish Kilgallon or Gene Fallon. You can also telephone them at 02830830337.
CONSENT FORM

Unique Identifier: ________

1. I know about the research project called 'The Impact of Caring for Animals for Adults with a Learning Disability'.

Yes I am happy  No I am not happy

2. I know that I will be asked questions about working with animals at the ARC.

Yes, I am happy  No, I am not happy
3. I am happy to answer questions about working with animals at the ARC.

Yes, I am happy  No, I am not happy

4. I know a report will be written

Yes, I am happy  No, I am not happy
5. What do you think about your views being in the report?

Yes, I am happy  No, I am not happy

6. What do you think about being taped when we are talking?

Yes, I am happy  No, I am not happy
7. What do you think about Eilish and Gene writing what you say in the report?

Yes, I am happy  No, I am not happy

8. Eilish and Gene will not say that you said it unless you tell them they can.

Yes, I am happy  No, I am not happy

Name of participant:  DATE: 

Consent Form – Adult with a Learning Disability, V4 15th April 2013
How the report was done

This research is about the effects that working with and caring for animals had on Adults with a Learning Disability.

The money for the research came from the Southern Health and Social Care Trust.

The research was done at the ARC Animal Centre.
In the research project we asked Adults with a Learning Disability about their views and experiences of caring for animals at the ARC. We also asked the views of their carers and the staff who worked on the animal research project.

We interviewed 18 Adults with a Learning Disability and their parents or carers. We also interviewed the 2 members of staff who looked after the group.

This is what we found out from the research.

Most Adults with a Learning Disability thought that working with the animals was important and said they were happy to be with the animals.
Looking after the dogs and walking them was the most important activity for many members of the group. Some of the group were very fond of the dogs and the young goat. Some group members became less afraid of the dogs over the 20 weeks of the research.

Almost everyone said that they wanted to work with the animals again in the future.

Most of the group said that they had learned how to look after the animals.
Most of the group said that working together as a group was important when working with the animals because it was quicker, you could learn more and it was safer for the group and for the animals.

Most of the group said that they could work more independently as a result of working on the research project.

Most of the group said that they preferred to work in a group as well as on their own. No one said that they only liked to work on their own.
At the end of the research most of the group felt that they could work better with others and were more willing to work with other people in the future.

All group members said that they would be willing to try a new activity.

Around half of the group said that they make some decisions in their lives and others said that they have only a small amount of control over what they can do on their own in their lives.
Most of the group said that their opinions would be valued by others and also said that they would value the opinions of others in the group.

Some of the group believed that they could achieve their dreams in life while a smaller number of the group did not think they could do so. A small number did not know if they could achieve their dreams or not.

Many of the group said that they had made new friends in the research project and spoke well of them.
Most of the group said they were sad because the research project was over and said that they would miss the animals, their friends, the work and the place.

Everyone in the group said that they had enjoyed working outdoors.

Many in the group said that working with the animals had positive effects on them. Many said that they enjoyed themselves and were happy in the company of the animals. Some said that they felt calmer and relaxed around the animals and others said that they felt more confident and satisfied because they were learning something new which was worthwhile and important.
What did the carers say?

Most carers said that adults with a Learning Disability involved in the research were happy to work with the animals. They said that some of those adults involved in the research were nervous at the start but became more confident, more patient and more comfortable with the animals.

Most carers said that those involved in the research project had learned something.

Some carers said that those involved in the research project had made new friends and others were not sure if they had made new friends or not.
Half of the carers said that those involved in the animal research project make their own decisions with some help from them and other carers said that those involved in the research made a small number of decisions for themselves. Some carers said that some Adults with a Learning Disability had become more confident and independent in the way they made decisions during the research project. Some carers said that they saw no change in the way those involved in the research made decisions.

Some carers said that those involved in the research were in a better mood and talked more about the animals to them.
What did the staff say?

Some carers said that those involved in the research were more relaxed and calm.

Some carers said that those involved in the research felt more comfortable with animals in the ARC and outside it. Most carers said that those involved in the research wanted to work with animals in the future.

Every carer said that those involved in caring for animals had felt positive effects during the research.
The staff said that those involved in the project learned how to do many things and did them very well.

The staff said that the groups worked very well together and group members helped each other. They said that the group really enjoyed working together. They also said that some of the group were more confident and independent in their work.

The staff said that the dogs were the most popular animals for those involved in the research project. The goat, pony and donkeys were also popular.
Conclusions

Adults with a Learning Disability enjoyed caring for animals outdoors in the research project.

Adults with a Learning Disability learned new skills and used them doing work that they thought was important.

Adults with a Learning Disability preferred working as part of a group and thought teamwork was important when working with animals.

Adults with a Learning Disability said they were more willing to work with others and could work better with others at the end of the animal research project.

Many Adults with a Learning Disability said that they had made new friends during the research project.

Carers, staff and Adults with a Learning Disability themselves reported increased self-confidence, calmness and positive feelings towards the animals.

Carers and staff also said that some Adults with a Learning Disability were more patient, more independent, communicated more and took more responsibility during the research project.
Things that we think should happen because of what we found out from the research.

We think that Adults with a Learning Disability should be asked their views and opinions on things that affect their lives.

We believe that the research which we did shows the many good things that can come from Adults with a Learning Disability caring for animals.

We believe that more places like the ARC could be built or used to give Adults with a Learning Disability an opportunity to work with animals.

We believe that more programmes of work with animals should be developed for Adults with a Learning Disability.
We believe that more research needs to be done into the effects of caring for animals on Adults with a Learning Disability.

We believe that more research may show us more good things that may come from Adults with a Learning Disability working with animals.

We believe that physical activity outdoors like the work done in the ARC with animals is good for the health of Adults with a Learning Disability.

We believe that Adults with a Learning Disability should be given greater choices and opportunities to try and experience new things.

In our opinion the research results show the positive effects of giving Adults with a Learning Disability the choice and chance to work with and care for animals.
Distress Protocol

Study Title: The Perceived Impact of Caring for Animals on Adults with a Learning Disability.

Adults with a Learning Disability can sometimes get upset by events around them and the reason for this may not always be clear.

If a participant becomes upset or appears distressed whilst in the Animal Project group they can talk to the group leader for both reassurance and support. If the person remains very upset their keyworker will be contacted to give further support to the individual. Their family will also be informed. If this distress is something which will be potentially on-going they will be offered further support via their keyworker who can also refer them on to both behaviour support and psychology services if this is required.

The same process will apply when they are participating in the one to one interview process with Eilish Kilgallon or Gene Fallon.

Participants will also have the option to withdraw from the study at any time should they wish to do so.
8.4 Appendix 4

Office for Research Ethics Committees
Northern Ireland (ORECNI)

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09 October 2013

Mrs Noreen McComiskey
Learning Disability Specialist Services Manager
Southern HSC Trust
Oakdale House
Dromalane Complex
Newry
BT35 8AP

Dear Mrs McComiskey

Study title: The Impact of Caring For Animals on Adults With a Learning Disability: An Exploratory Study
REC reference: 13/NW/0105
IRAS project ID: 130812

Thank you for your letter of 25 September 2013, responding to the Committee's request for further information on the above research and submitting revised documentation.

The further information was considered by a sub-committee of the REC at a meeting held on 09 October 2013. A list of the sub-committee members is attached.

We plan to publish your research summary wording for the above study on the NRES website, together with your contact details, unless you expressly withhold permission to do so. Publication will be no earlier than three months from the date of this favourable opinion letter. Should you wish to provide a substitute contact point, require further information, or wish to withhold permission to publish, please contact the Co-ordinator: Kathryn Taylor, Kathryn.Taylor@hscni.net.

Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised, subject to the conditions specified below.

Ethical review of research sites

The favourable opinion applies to all NHS sites taking part in the study, subject to management permission being obtained from the NHS/HSC R&D office prior to the start of the study (see "Conditions of the favourable opinion" below).

Providing Support to Health and Social Care

HSC REC 1
Mrs Noreen McComiskey
Learning Disability Specialist
Services Manager
Southern HSC Trust
Oakdale House
Dromalane Complex
Newry, BT35 8AP

11 October 2013  Our Ref:  ST1213/18/IK/MMCA

Dear Mrs McComiskey

Study Title: The Impact of Caring for Animals on Adults with a Learning Disability
HSC Trust Ref: ST1213/18 (Please quote this number in all future correspondence)
REC Ref: 13/NI/0105

I am pleased to advise that the Southern HSC Trust has given Research Governance Permission for the above project to commence. Permission is granted for the duration of the project to 30 April 2014.
8.5 Appendix 5

Interview Guides for Adults with a Learning Disability and Carers

Pre-Week 1 & Week 20

Based on 6 of 8 core quality of life domains identified in a report by The Special Interest Research Group of the International Association for the Scientific Study of Intellectual Disabilities (Schalock et al. 2002) (Appendix 3)

<table>
<thead>
<tr>
<th>EMOTIONAL WELL-BEING</th>
<th>PERSONAL DEVELOPMENT</th>
<th>PHYSICAL WELL-BEING</th>
<th>INTERPERSONAL RELATIONS</th>
<th>SELF-DETERMINATION &amp; SOCIAL INCLUSION</th>
</tr>
</thead>
</table>

**WEEK 1**

**Adults with a Learning Disability**

Have you worked with animals before?
Are you nervous about the animals?
What are your feelings towards the project?
Would you prefer to work as a group, alone or both?
Do you consider working in a group to be important when working with animals?
Do you have a pet?
Whose pet is/was it?
What are/were your feelings towards the pet and animals?
Do you exercise?

**WEEK 1**

**Carers**

What is the participant’s attitude towards taking part in the project?
What are the participant’s feelings towards animals?
Does the participant exercise?
Would the participant prefer to work in a group or alone?
Does the participant make decisions for himself/herself?
WEEK 20
Adults with a Learning Disability

What is your favourite/least favourite animal in the ARC?
Why?
What are your feelings now that the project is ending?
The difference between looking after a pet and the animals in the ARC?
You said you were initially nervous/not nervous of the animals, what are your feelings now?
Would you want to work with animals again?
Would you be willing to try another new activity? Why?
Was looking after the animals worth doing?
What have you learned during the project?
Could you use this elsewhere?
Have you made new friends? How did you feel about that?
Do you think that looking after the animals is important? Why?
Working alone, in a group or both? Preference?
Is working in a group important when working with animals? Why?
Would you be more willing to work with others after taking part in this project?
Can you work better with others after taking part in this project?
Can you work more independently as a result of working on this project? Example?
Did you express your opinion in relation to the care of animals? How did you feel about that?
Do you think your opinion would have been valued?
Would you have valued the opinions of others?
Do you feel as if you had any control over what you did in the project?
Does that happen in all areas of your life?
How did you feel the first day you started work with the animals?
How did you feel when you were with the animals?
Did working with animals have any effect on you?
Would you be more open to having a pet at home now that you’ve been involved in this project?
Did you do the same task for 20 weeks or a range of activities?
Which one did you like best?
Which one did you like least?
Is there anything you would have liked to have done that you didn’t do in terms of the project?
What in your life would you like to do?
How would you go about making that happen?
Do you think it will happen?
Did you enjoy working outdoors?
Do you have a different view of animals in general outside of the ARC? Have your views on animals changed in any way?
Impact of Barney’s death.

WEEK 20
Carers
How would you describe the participant’s attitude towards taking part in the research project before the project started?
Did you notice any changes in the participant over the period of the research in terms of how they felt about taking part in it?
Did you notice any changes in the participant over the period of the research in terms of their attitude towards working with the animals?
Do you think their expectation of the project matched their experiences over the period of the research?
Did the participant express any other feelings, good or bad, about the project?
Can you identify any link, no matter how small, between the participant taking part in the research and learning to do something?
Would the participant like to work with animals in the future?
Do you think that being involved in working with animals in the ARC had any impact upon the participant?
Do you think that working with the animals in the ARC had a positive or a negative effect upon the participant?

Does the participant do any form of exercise at the moment?

Did the participant mention walking the dogs as part of the project?

Would they recognise that as a form of exercise?

How do you think the participant felt about working with the animals over 20 weeks in the ARC?

Impact of Barney’s death.

What do you think the participant’s attitude was towards working with the animals as part of a group?

Did you think that they would have preferred to work alone with the animals?

Did the participant make new friends with anyone in the group?

Does the participant take decisions for himself/herself?

Have you noticed any change in how the participant views making decisions?
8.6 Appendix 6

The report by Schalock et al. (2002) entitled “Conceptualisation, measurement & application of quality of life for persons with intellectual disabilities: report of international panel of experts” states:

“it is important to point out that the concept of quality of life is still emerging in the field of intellectual disabilities and that currently there is considerable debate about its conceptualization, measurement, and application.” (p.466) “A number of core ideas have emerged in the international literature regarding the conceptualization of the quality of life concept. Chief among these are domains of well-being, inter- and intrapersonal variability, personal context, a life-span perspective, holism, values, choices and personal control, perception, self-image, and empowerment.” … “A number of domains of well-being have been identified in the international quality of life literature. Although the number varies slightly, the core domains (sometimes referred to as “dimensions”) include the desired states of emotional well-being, interpersonal relations, material well-being, personal development, physical well-being, self-determination, social inclusion, and rights. Many quality of life investigators suggest that the actual number of domains is perhaps less important than the recognition that any proposed structure must recognize the need for a multi-element framework, the realization that people know what is important to them, and that the essential characteristic of any set of domains is that they represent in aggregate the complete quality of life construct.” (p. 459)

8.7 Appendix 7

Burnard's (1991) stage by stage method of data analysis for semi-structured interviews

1 Notes are made after each interview regarding topics. Memos may also be made to record ideas and theories.
2 The reader becomes fully immersed in the data and further notes are made on general themes.
3 Transcripts are read through again and headings or categories made to describe all aspects of the content. (Open Coding)
4 The number of categories is reduced.
5 The new list of categories is worked through to produce a final list.
6 Two colleagues generate category systems independently of the researcher’s list which are discussed and adjusted as necessary in order to enhance the validity of the categorising method and consequently guard against bias.
7 Transcripts are re-read alongside the agreed list of categories and sub-headings to establish to what degree the categories cover all aspects of the interviews.
8 Each transcript is worked through and coded according to the list of categories headings.
9 Each coded section of the interviews is cut out of the transcript and all items of each code gathered together. The importance of context is recognised and observed.
10 The cut out sections are pasted onto sheets and headed up with the appropriate headings and sub-headings.
11 The validity of the categorising process is maintained through consultation with selected respondents on the appropriateness of the category system.
12 The sections are filed together before the project is written up with copies of the transcript or recording to hand in order to bring clarity when uncertainty arises.
13 The writing up process begins and the researcher works through each section until completion.
14 The researcher decides whether or not to link the data examples and the commentary to the literature.
Adapted from:
Burnard, P. A method of analysing interview transcripts in qualitative research.
Nurse Education Today (1991) 11,461-466