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HOW FEASIBLE IS IT TO COMPARE EFFECTS OF COMPANION DOGS AND SERVICE DOGS ON QUALITY OF LIFE IN PEOPLE WITH MOVEMENT DISORDERS?

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A thesis submitted in partial fulfilment of the requirements for the degree of PhD in Health Sciences, University of Auckland

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ABSTRACT

This thesis examined the question: How feasible is it to compare effects of companion dogs and service dogs (Mobility Dogs) on quality of life (QOL) in people with movement disorders? Previous studies have focused on the impact of either companion dogs or service dogs on human health and well-being, with equivocal findings. A need remains to identify appropriate methodologies and methods for human-canine interaction research to avoid pitfalls, and understand comparative effects of companion dogs and service dogs as QOL interventions. Recognising time as a key component in living with chronic conditions and dogs, a longitudinal, predominantly qualitative, case-oriented study design was implemented. Seventeen participants (21–68 years) with diagnosed movement disorders were prospectively followed for 12 months. Two groups were purposefully recruited; one group (n=7) partnered with, or waited for, Mobility Dogs; a second group (n=10) lived with companion (pet) dogs. My interactions with them at baseline, six and 12 months triangulated data from: semi-structured and walk-along interviews; observations; a photovoice assignment; and a standardised measure of QOL. My general inductive analysis of these data indicated eight roles that dogs can play to impact QOL: companion, protector, icebreaker, caregiver, empowerer, motivator, entertainer and tool/assistive technology. Dogs appeared to be a complex QOL intervention fulfilling these different roles, for different people, across different environments. For each category of dog, perceived benefits generally outweighed drawbacks. Overall, Mobility Dogs seemed to offer more avenues to enrich QOL but the service dog model does not suit everyone; companion dogs may be equally effective for some people with movement disorders. An expanded perspective of the service dog concept was suggested in order to: recognise the importance of psychosocial benefits alongside functional assistance tasks when granting public access rights; offer small breeds of service dog as well as larger breeds; and allow people with suitably trained companion dogs to apply for public access. The usefulness of my methodology in generating these nascent findings indicates the feasibility in practice of comparing effects of companion dogs and Mobility Dogs on QOL in people with movement disorders. Implications for future research designs and directions, the long-term management of movement disorders and service dog organisations are discussed.
DEDICATION

To my parents: Jim (1927–2012) and Jan Spence
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Theory aside, doctoral dissertations are ultimately ‘underpinned and overarched’ by the interest and support of many people. Firstly, thank you to my research participants – human and canine – for generously sharing your lives with me.

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CHAPTER ONE
RESEARCH QUESTION AND DEFINITIONS

"Psychosocial interventions in medicine are often met with skepticism, as doctors and patients alike feel familiar with the traditional pharmacological approach. In this regard a dog has particular advantages over many other interventions in providing both companionship, motivation to exercise and a (four-legged) therapist" (Zakeri & Bain, 2010).

Health professionals often overlook the role of companion animals in the lives of people with chronic conditions. Long-term health management plans focus mainly on pharmacological and surgical treatments. Similarly, health professionals tend to give little, or no, consideration to the potential of service dogs to benefit people with movement disorders. The research question examined in my thesis is: How feasible is it to compare effects of companion dogs and service dogs (Mobility Dogs) on quality of life in people living with movement disorders? Previous studies have focused on the impact of either companion (pet) dogs or service dogs on human health and well-being, with equivocal findings. There is a need to identify appropriate methodologies and methods for future human-canine interaction studies and also to understand the comparative benefits and drawbacks of companion dogs and service dogs as quality of life (QOL) interventions for people with movement disorders. This is the first study to investigate in depth the impact of Mobility Dogs on the lives of people with movement disorders in New Zealand. Moreover, it includes a case study of the first Mobility Dog trained specifically to assist a person with Parkinson’s disease. This research may suggest policy implications for companion dogs and service dogs to be considered alongside usual support systems associated with the long-term management of movement disorders. It may also inform recommendations to improve aspects of service dog practice and delivery.

My general topic of dogs in support of people with movement disorders stems from my involvement, over the past eight years, with the Mobility Assistance Dogs Trust (MADT) in New Zealand. At the outset of my doctoral studies it employed me part-time in communications, public relations and marketing roles, most of which I have now relinquished. Partnering me with one of its canine ambassadors (Golden Retriever, Chance) my work with the MADT has predisposed me to the view that dogs can be used as an intervention to foster positive life experiences in people and enhance their QOL. However, the literature is uncertain whether service dogs are more effective in this regard than companion dogs.

1.1 Background to research question

1.1.1 ‘Chance’ events

The best way to describe how I arrived at my research question is perhaps as a series of ‘chance’ events. While out walking in October 2006, I met a man using a wheelchair accompanied by a soft coated wheaten terrier. He commented, “I often see you out walking and you don’t have a dog.” And thus I was introduced to the founder of the MADT: a registered charitable trust established in 2003 with the mission of training dogs to enhance the lives of New Zealanders living with physical disabilities. I was also introduced to his dog; a companion dog that he had trained to provide functional assistance with everyday tasks that he was finding increasingly difficult: pushing pedestrian buttons, picking up
dropped items and opening doors. In the course of our conversation I learnt that the fledgling Trust had recently acquired a five month old rescue puppy, Chance. For the next 12 months Chance required a puppy-raiser to establish basic obedience commands and provide socialisation across a range of environments in preparation for his future as a service dog. I proposed to my family the idea of puppy-raising for the MADT as a community service project that also offered us a canine experience without the long-term commitment demanded of a companion dog. It was important that one person in the household assumed overall responsibility for Chance and, inevitably, I found myself in this role. The closest I had come to training a dog was shaping the behaviour of a laboratory rat through operant conditioning as a psychology student in the mid-1970s. Initially, I took advantage of a series of canine obedience classes in my local community where it soon became apparent that training a dog is as much about training the dog handler.

Chance was supplied with a Mobility Dogs’ branded service jacket which granted him access to community spaces – including shops, cafes, cinemas, sports grounds and public transport. It was not long before most of my day was shared with a dog. After several months I observed Chance favouring his left front leg, sometimes walking on three legs. Eventually he was diagnosed with a significant bone growth deformity that would be corrected with two major surgeries but heralded the end of his career as a service dog. The MADT proposed that Chance become the Trust’s first canine ambassador – ‘ambassadog’ – on the proviso that I work with him as a human ambassador. Having witnessed several of the first Mobility Dog placements in New Zealand, and their impact on the lives of recipients, I found this proposal appealing. So, when I was formally employed by the MADT at the end of 2007 to raise awareness of, and crucially funding for, the organisation, I continued training Chance to the point of demonstrating sufficient service dog tasks to render a presentation about Mobility Dogs interesting. My detour to academia resulted from a ‘chance’ meeting with one of my supervisors to be at the 2011 Brain Day of the University of Auckland’s Centre for Brain Research.

Scant published literature explores the impact of companion dogs specifically on the lives of people with a movement disorder. A letter to the editor of the Journal of Neurology (Zakeri & Bain, 2010) had signalled that this area may warrant further attention. The letter documented a case study of a woman who over six years reported major symptomatic, general health and psychosocial benefits, and a sustained reduction in pharmacological treatments, after receiving a pet dog. The authors suggested that the young woman’s symptomatic improvement might be due to an associated increase in daily exercise. They noted that the companionship of the dog helped to offset her persistent depression, as did increased opportunities for socialisation which resulted from being out with a dog.

A small qualitative study by Buetow (2011, unpublished) discussed how pet dogs motivated almost all his participants with Parkinson’s disease to be physically active through daily walking. Reported physical benefits of dog-walking were an increased sense of postural stability and a reduction in muscle rigidity and tremor. From a psychosocial perspective the companionship of pet dogs improved mood and facilitated social interaction when out walking.

1.1.2 Parkinson’s Walker Dogs

In 2011, no Mobility Dogs were partnered with people with Parkinson’s disease in New Zealand. In 1997 a charitable organisation in the United States (Independence Dogs Inc. (IDI)) collaborated with the
Parkinson’s Disease and Movement Disorders Center (PDMDC) at Pennsylvania Hospital to establish a pilot programme, Parkinson’s Walker Dogs (PWDs), to train dogs specifically for people with Parkinson’s. Today many service dog organisations internationally offer ‘walker dogs’ to assist with postural balance and stability for conditions including Parkinson’s disease.

The original PWD programme deserves discussion here because it aimed to slow progression of the disease, encourage people with Parkinson’s to adopt less sedentary and reclusive lifestyles, and enable them to be more independent and active. Its brief was to train dogs to assist with stability, balance and fluidity of walking, to provide a cue to break a freeze in movement, and to help in the event of a fall (IDI, 1997). CNN Health featured a partnership resulting from the programme, Lou Paulmier and assistance dog Melek:

In addition to tremors and stiffness, Lou has another common Parkinson’s symptom called “freezing;” his feet freeze in place while he’s trying to walk ... In a matter of weeks, she transformed Paulmier into an active man ... At Lou’s cue, Melek can break his freeze by simply touching his foot – doctors don’t know why – and he can continue walking. If he does fall, she’s there to help him up (Rowland, 1997).

A second partnership was between Herman Fritzenkotter and his dog, Rikki Lee:

Rikki Lee helps me with freezing and with my gait. She helps me walk straighter and faster, and she steadies me and keeps me from falling. An additional benefit is her social value. Before Rikki Lee, when Herman went out in public, people would stare at the way he moved. Now they stop to chat. “People are looking at the dog now, not the person. The disability becomes less conspicuous” (Alamo Service Connection, n.d.).

The Master Trainer for the programme, J. van Vliet, trained a total of 14 walker dogs. When contacted by email (October 11, 2011) she confirmed that to the best of her knowledge no articles had been published out of this project. She was cautious in assessing the overall success of the programme but suggested that several participants were not suitable to work with a dog owing to the advanced stage of their disease. In particular she felt that some recipients fell much too frequently:

One man fell more than 90 times a day and wore knee pads to protect his knees. The initial training was very difficult because the dog was scared. Walking with the dog did, in fact, decrease his number of falls to 30 per day, but it was very stressful for the dog (van Vliet, personal communication, February 28, 2012).

Here, I sense tension between the PDMDC driving this project from an outcomes perspective and IDI, understandably, more concerned about the welfare of the dogs. As an overture to my study, this experience highlights a key consideration in the facilitation of successful service dog partnerships: that the functional assistance that applicants require of a service dog also takes the dog’s health and welfare into consideration. Service dogs must not be stressed mentally or physically by the tasks requested of them. For example, if the dog is required to provide bracing support for transfers to and from a wheelchair, care must be taken to ensure that the weight the dog supports does not result in injury.

In consultation with the MADT and Parkinson’s NZ, I proposed a similar collaborative project to the one above. It was intended to explore how the experience of living with a companion dog compares with that of living with a service dog (Mobility Dog) in people with Parkinson’s disease. Despite extended engagement with the community network serviced by Parkinson’s Auckland field officers, I encountered difficulties recruiting people with Parkinson’s, who also met the requirements for a Mobility Dog, within the allotted timeframe. Following my first annual review I broadened the scope of my inquiry from
1.2 Why a feasibility study?

My decision to frame my research as a feasibility study was based on four considerations:

1. Difficulties experienced in the pre-recruitment phase for my initial research question;
2. Extensive reading of the human-animal interaction literature, and associated reviews, which continued to highlight difficulties of conducting rigorous research in this field;
3. My experience of working for the MADT which flagged issues that may limit a study involving both people with movement disorders and dogs;
4. Critical examination of my research protocol is needed to render a future large-scale study the best it can be: is my study design realistic and workable from practical and methodological perspectives?

The framing of my research as a feasibility study does not preclude a discussion of my findings or their possible implications. However, with a focus on feasibility, these findings are deemed preliminary. The prime importance is therefore on their implications for designing further studies rather than as a final answer to the question of whether one category of dog is more effective than the other as a QOL intervention. I elaborate on the rationale and framework for feasibility studies in Section 4.2.1 but the main purpose is to identify practical problems and so avoid pitfalls in conducting a future large-scale study. With reference to (ii) above, Headey (2003) revisited the evidence of whether pets benefit human health. He particularly addressed the difficulty of assimilating different types of human-animal research by medical and social scientists who,

have different understandings of causation (ie, of what it means to claim that pets cause their owners to have better health), and, because of this, it is difficult to have a meeting of the minds ... medical researchers want better evidence of causation ... They want to know precisely which medical conditions, if any, are improved by pet ownership, and, ideally, they want to understand things at the molecular level. It has to be said that research along these lines has made only limited progress ... Arguably then, the state of debate is that pets probably do confer health benefits, but we don’t know precisely how (p. 460).

More recent systematic reviews essentially repeat the same mantra: more robust research is required: “Although the findings ... are promising, they are inconclusive and limited. This suggests the need for more rigorous studies to demonstrate the effectiveness of service dog/person partnerships” (Winkle, Crowe, & Hendrix, 2012, p. 65). Similar beliefs have been expressed in recent reviews of the ability of companion animals to confer health-related benefits (Chur-Hansen, Stern, & Winefield, 2010; O’Haire, 2010). I expect that so long as robust scientific enquiry is defined in terms of a hierarchy of evidence, researchers will continue to voice such conclusions even though it is impossible, for example, to evaluate the efficacy of a ‘prescribed animal’ in the same way as a prescribed drug. This indicates a need to explore alternative methodologies, methods and measures of effectiveness in the field of human-canine interaction.

1.3 Definitions and New Zealand context

In this section I define movement disorders, QOL, service dogs, companion animals and disability. These definitions are important because these terms have multiple meanings. Where appropriate, I
emplace these definitions in a New Zealand context. In defining service dogs, I background the development of the service dog concept internationally, which leads to an overview of the operation of the MADT in New Zealand.

1.3.1 Movement disorders

I define movement disorders as “neurologic syndromes in which there is either an excess of movement or a paucity of voluntary and automatic movements” (Fahn, Jankovic, & Hallet, 2011, p. 1). An excess of movement is commonly referred to as dyskinesia or hyperkinesia. A paucity of movement signifies hypokinesia (decreased amplitude of movement), bradykinesia (slowness of movement) or akinesia (loss of movement). Movement disorders can be broadly categorised as either Parkinsonism or ‘other types’. Many of these chronic neurodegenerative conditions have no known cause or cure; some conditions are congenital, others are acquired. Movement disorders may result in complex health conditions involving not only long-term physical disability but also psychological and cognitive components which together impact an individual’s overall QOL.

1.3.1.1 Movement disorders in New Zealand

Precise prevalences and incidences of movement-related disorders in New Zealand are unavailable. For example, the true incidence of multiple sclerosis (MS) is unknown with only two studies conducted some 20–40 years ago. To fill this gap, a two year MS Incidence Study was launched in June 2012. It estimated that MS affects approximately 4,000 New Zealanders, 2,896 people having been identified with MS on census day 2006 (Taylor et al., 2010). Similarly no figures are available for muscular dystrophy; in 2011 the Neuromuscular Research Foundation Trust called for research proposals to assess the prevalence and incidence of neuromuscular conditions in New Zealand (Muscular Dystrophy Association of New Zealand (Inc), 2011). Approximately 7,000 people, 2.0–2.5 per 1,000 live births, are estimated to have some degree of cerebral palsy (Cerebral Palsy Society of New Zealand, n.d.), and while there are no exact figures for Parkinson’s disease, it is estimated to affect 10,000 New Zealanders (Parkinson’s New Zealand, n.d.) or approximately 0.2% of the New Zealand population. The incidence of spinal cord injury (SCI) (both traumatic and non-traumatic) among 16 to 64 year olds admitted to New Zealand spinal units 2007–2009, has been estimated at 30 per million (Derrett et al., 2012). Collectively, these figures indicate a need to explore interventions with the potential to enhance QOL in people with movement disorders; one such intervention may be a companion animal.

1.3.2 Companion animals

The New Zealand Companion Animal Council (The NZCAC Inc., n.d.) established in 1996 defines a companion animal as,

any animal that shares a living environment and relationship with humans: An all-encompassing phraseology given to an entire spectrum of animals with whom interaction and/or companionship is enjoyed by humans, and where a responsible guardianship is established and accepted for their welfare by humans. Where it is accepted that this degree of ‘companionship’ will vary by species, the expression ‘companion animal’ acknowledges the important role all such animals play in our society.

Companion animals are often referred to as pets. The past 10–20 years have witnessed a gradual shift in the academic literature to embrace the term companion animals. This distinction was formally voiced in the editorial of the Journal of Animal Ethics, launched in 2011. The co-editors condemned the use of
perceived derogatory language pertaining to animals, such as ‘pets’ and ‘owners’ that can affect how animals are treated (Bingham, 2011). They expressed a preference for ‘companion animals’ and ‘guardians’ respectively. In the body of this thesis, I use the terms pets and companion animals interchangeably, usually drawing on the terms originally used in published literature. However, with reference to my own study I use the terms companion animals and companion dogs, in lieu of pets and pet dogs, to reflect the current position.

1.3.2.1 Companion animals in New Zealand
Companion animals are an integral part of contemporary New Zealand life. Results of the first NZCAC survey (April 2011) revealed that 68% of New Zealand households include at least one companion animal. This snapshot estimated a national companion animal population of five million, outnumbering the human population. Notably, New Zealand claims one of the highest levels of cat ownership in the world with 48% of households owning at least one cat. In comparison, 29% of households own at least one dog: this compares with 39% of households in the United States, 36% in Australia and 23% in the United Kingdom. It was estimated that New Zealanders spend NZ$1,583.8 million per year on companion animals, with cats significantly cheaper to maintain than dogs; 48% of all companion animal expenditure was accounted for by dogs and 43% by cats, even though there are almost twice as many cats as dogs. The average dog owning household spends NZ$1,571 per annum caring for its canines, with the average cost per dog being NZ$1,047 (The NZCAC Inc., 2011).

1.3.3 Service dogs
Guide Dogs for the blind were the first assistance dogs trained specifically to support people living with a disability. The first formal Guide Dog training school was established in Potsdam, Germany, during the First World War to enable the mobility of visually impaired veterans. The concept was replicated and The Seeing Eye was established in the United States in 1929 (The Seeing Eye, 2012). The Guide Dogs Association for the Blind in Great Britain followed in 1934 with almost 40 years elapsing before the Royal New Zealand Foundation of the Blind Guide Dog Centre opened in 1973 (Blind Foundation, 2014). As New Zealand welcomed Guide Dogs, a 30 year old teacher in the United States, Bonita (Bonnie) Bergin, was developing her notion of training dogs to assist people living with movement disorders. During her travels through Asia, Bergin had observed people with physical disabilities effectively using donkeys as support. Recognising the impracticality of these animals fulfilling a similar function in the United States, Bergin pioneered the service dog: “the arms and legs for people with mobility-limiting physical disabilities” (Bergin, 1998, p.4). In the face of much initial opposition, she believed that “dogs could provide that extra something that would expand people’s capabilities” (Bergin, 1998, p. 4). Bergin founded Canine Companions for Independence (CCI) in Santa Rosa, California, in 1975, which today is the world’s single largest provider of service dogs. Sixteen years later she established Assistance Dogs International (ADI) with the goal of increasing the number and quality of assistance dog organisations worldwide. Besieged with enquiries about how best to train service dogs, Bergin formed the Assistance Dogs Institute in 1991, dedicated to both education and research and development. In recognition of Bergin’s work, the Assistance Dogs Institute was renamed in 2008 the Bergin University of Canine Studies.

ADI defines service dogs as dogs that “assist people with disabilities other than vision or hearing impairment” and has set minimum standards for training including:
1. The service dog must respond to commands (basic obedience and skilled tasks) from the client 90% of the time on the first ask in all public and home environments.

2. The service dog should demonstrate basic obedience skills by responding to voice and/or hand signals for sitting, staying in place, lying down, walking in a controlled position near the client and coming to the client when called.

3. The service dog must meet all of the standards as laid out in the minimum standards for Assistance Dogs in Public and should be equally well behaved in the home.

4. The service dog must be trained to perform at least 3 tasks to mitigate the client's disability (ADI, 2014).

The service dog concept has expanded over the years in support of an increasingly wide range of conditions including epilepsy; diabetes; mental disorders such as post-traumatic stress syndrome; and autism. While acknowledging the range of service dogs, this thesis is concerned only with service dogs for people with physical disabilities, as originally conceived by Bergin.

1.3.3.1 Service dogs in New Zealand: Mobility Assistance Dogs Trust (MADT)

A criticism of many historical service dog studies is their inadequate description of the organisations providing the dogs. This problem is compounded when studies have incorporated participants with dogs from different organisations: “Without knowing the length and quality of the specialized training of the service dog, criteria for dog or person placement readiness or the content, length and quality of the training for dog or person, it is impossible to replicate these studies” (Winkle et al., 2012, p.64). When it comes to comparing impacts of Mobility Dogs vis-à-vis companion dogs in support of people with movement disorders, it is important to understand exactly what sits behind a Mobility Dog partnership.

The following section provides an overview of the MADT: the processes of applying for a Mobility Dog and of raising, training and placing the dogs. Information collated in this section draws on the MADT website (http://www.mobilitydogs.co.nz), MADT marketing material, application process and procedure documents prepared for ADI accreditation, personal communications with the General Manager, J. M. Wilson, and my experience of working with the Trust.

Established in 2003 the MADT is a registered charitable trust (CC24410) with an appointed board of trustees. The Trust’s mission is: to enhance the lives of people living with physical disabilities by increasing independence, confidence, self-esteem and participation in New Zealand communities. Modelled on organisations overseas the MADT was accredited by ADI early in 2014 on international standards of assistance dog practice. Over the past 11 years, 38 full service dogs have been placed. Directly as the result of my original research plan, the MADT trained the first dog to assist a person with Parkinson’s disease.

Mobility Dogs are trained to provide assistance with everyday tasks including: fetching the phone, retrieving dropped items and items out of reach, barking for help, opening doors, pressing lift and pedestrian crossing buttons, paying for purchases across the counter, taking shoes on and off, switching lights, loading and unloading washing machines, bracing support – and more, depending on individual needs. The MADT currently provides four categories of Mobility Dog:

1. **Service dog**: provides support both in the home environment and out in the community with full public access rights;
2. **Assist dog**: provides support at home, and public access is managed by a facilitator. An example of an Assist dog is a Mobility Dog placed with a child;

3. **Skilled companion dog**: provides the support of a highly skilled pet. Does not have public access rights;

4. **Canine assisted intervention dog**: works in residential care facilities to complement occupational and physical therapy programmes.

In this study Mobility Dog refers exclusively to (i) above, a full service dog. Public access is accorded under the Dog Control Act 1996, amended in 2006, which sanctions access of ‘disability assist dogs’ to public spaces and transport (Parliamentary Counsel Office, n.d.). Mobility Dogs wear clearly branded jackets and collar tags, carry identification cards, are micro-chipped and are registered with the appropriate council authority.

Application for a Mobility Dog is a comprehensive step-by-step process with a decision as to the applicant’s suitability made at each stage. Applicants for a full service dog must be at least 16 years of age. An initial application form requests personal and medical information including details of the applicant’s: home environment, lifestyle, medications, use of assistive technologies and anticipated task requirements. Next, an applicant receives a home visit from representatives of the MADT. Applicants must be willing to adapt their home to accommodate the needs of a medium or large dog, for example, by installing adequate fencing to secure a yard area. The next step is referral to a consultant neurophysiologist for a functional assessment, pending final approval. The latter is to assess aspects of the applicant’s physical abilities that may impinge on the training of the dog. For example: how far can the applicant reach out for items picked up by the dog? Can the applicant hold a leash? On which side of the applicant should the dog walk? Will the applicant require the dog to provide a balance point when transferring to and from a wheelchair? The MADT reiterates throughout the application process that working effectively with a Mobility Dog will take time, energy, motivation and commitment. Time spent on the MADT waiting list varies; it depends largely on a dog with an appropriate skill set being available. Owing to funding limitations, some individuals may currently wait for at least two years. From the MADT’s perspective, a wait is not necessarily a bad thing as it ensures the applicant has thought carefully about the responsibilities of taking on a dog.

The all up cost of a Mobility Dog is presently in the order of NZ$50,000. This includes the direct cost of raising and training the dog itself, matching and placement with the recipient, and follow-up support from the Trust over the working life of the dog. To assist with funding, approved applicants are required to source the cost of Team Training with their Mobility Dog. In the greater Auckland area this cost is NZ$4,000 with out of Auckland placements adjusted on a case-by-case basis. Once a Mobility Dog has been placed, the ongoing costs of maintaining the dog – including food and veterinary costs – become the responsibility of the recipient. It is recommended that Mobility Dogs be covered by pet medical insurance, but such coverage is at the recipient’s discretion.

The MADT is not yet in the position to finance its own breeding facility and programme. Potential Golden Retriever and Labrador retriever puppies are sourced from breeders and other assistance dog organisations: for example, Guide Dog Services. Here, I note that in earlier days of the Trust’s operation a wider variety of dog breeds were trained (for example, the German shepherd included in this study), but the experience of established service dog organisations overseas favours retrievers: “The work they
do generally requires a dog to be a reasonable size. Small dogs will struggle to pick up and present objects in a suitable way ... A good service dog is not protective, is people orientated, not overly active, confident but not dominant or submissive” (ADI, 2014). At approximately six weeks of age puppies are assessed over a two week period. Suitable puppies are then allocated to either raisers in the community or the Puppies in Prison programme. The MADT is notable for this social initiative in rehabilitation, which it manages in partnership with the Department of Corrections. Since July 2008, prisoners at Auckland Region Women’s Correctional Facility have been raising and training puppies, under the supervision of the MADT Canine Team. This programme was expanded early in 2012 to the men’s Spring Hill Corrections Facility.

Over the first 12–14 months, training mainly focuses on obedience, socialisation and acquiring basic service skills. Puppies are regularly evaluated and may be removed from the programme owing to health or behavioural issues. The MADT re-homes these exited dogs. Around 14 months of age, dogs commence advanced training under the supervision of the MADT and work towards a repertoire of at least 60 commands. Dogs are matched to applicants on the waiting list, and the latter stages of training focus on mastering tasks specific to their future partner. Mobility Dogs, circa two years of age, are placed by a MADT trainer. Typically, this two week Team Training occurs in the recipient’s home and local community environments. The new service dog team is required to pass written and practical tests (ADI, 2015) after which provisional public access rights are granted. Public access competency is reassessed two months later to ensure all parties – the recipient, the Mobility Dog and members of the public – are safe. The jackets of full service dogs are clearly labelled ‘public access certified’.

1.3.4 Quality of life (QOL)

To date, research has focused primarily on pharmacological and surgical treatments to alleviate the physical symptoms of movement disorders in order to maximise functional ability. I recognised from the outset that it was not feasible to compare companion dogs and Mobility Dogs if functional ability was the sole outcome of interest because companion dogs are not usually trained to provide this assistance. Before formal definitions of QOL and the emergence of standardised measures of QOL, Eiseman (1981) described two dimensions of life relevant to making therapeutic decisions, namely length and depth. He observed that progressive extensions to length of life, through medical, surgical and pharmacological interventions, may come at the expense of reduced (depth of) life quality. This tension varies from one patient to another, since: “There are those who, despite severe physical disabilities, live full, happy lives by any social, economic, philosophic, or emotional standards. Others are destroyed by a seemingly trivial handicap” (p. 11). From a clinical perspective, Eiseman proposed four criteria that may influence QOL: the need for hospitalisation, pain, physical ability to carry out functions that make life worth living, and how patients feel about themselves. Recent decades have witnessed increasing recognition of the importance of an individual’s perception and evaluation of the impact of a chronic condition (be it congenital, acquired or the result of traumatic accident) and its consequences in their life. People with cerebrovascular/neurologic conditions (including the movement-related disorders of neuromuscular disease, MS, stroke and Parkinson’s) and musculoskeletal conditions (including back/spinal impairments) are among those who report the poorest QOL (Sprangers et al., 2000). The World Health Organization Quality of Life Group (WHOQOLG) defines QOL as,
an individual’s perception of his/her position in life in the context of the culture and value systems in which he/she lives and in relation to his/her goals, expectations, standards and concerns. It is a broad-ranging concept incorporating in a complex way the person’s physical health, psychological state, level of independence, social relationships, personal beliefs and their relationship in salient features of the environment (WHO, 1997, p. 1).

The adoption of a QOL focus rather than a narrow focus on health status in people with movement disorders acknowledges that many non-motor aspects of these conditions – for example social isolation, insomnia, digestive disorders and emotional and cognitive impairments – can elude clinical evaluation. There is compelling evidence that successful management of chronic conditions requires this broader framework (Osborne, Bindemann, Noble, & Reed, 2013; Martinez-Martin, 2014), and that people may hold views that differ from those of medical professionals with respect to health-related factors conducive to improved QOL (Findley & Baker, 2002; Jorm et al. 1997). The perceived value of both companion dogs and service dogs potentially falls in this gap between the understandings and assessments of health professionals and the experiences of those living with movement disorders.

As my study compares companion dogs and service dogs as potential QOL interventions for people with movement disorders, I discuss the development of a conceptual model of QOL as part of the theoretical framework for my study in Section 3.2. Here, briefly, I. B. Wilson and Cleary (1995) proposed a five level continuum: from biological and physiological variables through symptom status, functional status and general health perceptions to an overall assessment of QOL. This model has been successively revised to recognise the impact of inherent individual and environmental characteristics on biological function (Ferrans, Zerwic, Wilbur, & Larson, 2005), and make explicit the impact of molecular and genetic factors (Sprangers et al., 2010). This model provides a reference point from which to examine how – in what specific domains – companion dogs and service dogs may impact overall QOL.

1.3.5 Disability

Inherent in a study with a focus on movement disorders and service dogs is disability. The MADT is positioned as a charitable service provider within the disability sector. Definitions of disability are inextricably linked to particular theories of disability (3.3). Before offering definitions, I draw attention to this statement made by the New Zealand Human Rights Commission (n.d.):

For many disabled people, an understanding by the community of what the lived experience of disability means is more important than the strict definition of ‘disability’. First and foremost, disabled people want to be seen as fully human. Disabled people want to be valued as human beings and to be supported, where necessary, to reach their full potential.

It can be argued that ‘disability’ is in itself a disparaging term, indicating a lack of ability. Taking a deliberately thought provoking stance, disability activists coined the term ‘temporarily able-bodied’, to remind us all “that disability is a porous state; anyone can enter or leave at any time. Live long enough and you will almost certainly enter it” (Simon, 2013).

I find a lack of consistency in the definition of disability in national documents. The New Zealand Disability Strategy (NZDS, Minister of Disability Issues, 2001) underpinned by the social model of disability (3.4.2) offers the following definition:

Disability is not something individuals have. What individuals have are impairments. They may be physical, sensory, neurological, psychiatric, intellectual or other impairments ... Disability is the process which happens when one group of people create barriers by designing a world only for their way of living, taking no account of the impairments other people have (p. 1).
In contrast, the Human Rights Act 1993 defines disability from a medical perspective (3.4.1) as:

Physical disability or impairment, physical illness, psychiatric illness, intellectual or psychological disability or impairment, any other loss or abnormality of psychological, physiological, or anatomical structure or function, reliance on a guide dog, wheelchair, or other remedial means and/or the presence in the body of organisms capable of causing illness (Parliamentary Counsel Office, 1993).

The Statistics New Zealand 2013 Disability Survey (Statistics New Zealand, 2014) provides the definition: “an impairment which has a long-term limiting effect on a person’s ability to carry out day-to-day activities. Long-term means six months or longer and limiting effect means a restriction or lack of ability to perform” (p. 20). The latter leans towards the International Classification of Impairments, Disability and Handicaps (ICIDH, WHO, 1980) functional definition of disability as “any restriction or lack (resulting from impairment) of ability to perform an activity in the manner or within the range considered normal for a human being” (p. 28). However, the ICIDH has been superseded by the International Classification of Functioning, Disability and Health (ICF, WHO, 2001). Recognising that diagnosis, in and of itself, does not determine health or disability outcomes, the ICF provides:

A standard language and framework for the description of health and health-related states ... In ICF, the term *functioning* refers to all body functions, activities and participation, while *disability* is similarly an umbrella term for impairments, activity limitations and participation restrictions. ICF also lists environmental factors that interact with all these components (WHO, 2002, p. 2).

The strength of the ICF schema is that it moves away from the view that disability begins when health ends. Rather, it shifts the focus to functioning irrespective of the degree or aetiology of impairments. Further, in recognising the role of environmental factors it is consistent with a QOL approach to the management of chronic conditions explored in this study.

### 1.3.5.1 ‘People with disabilities’ or ‘disabled people’?

The terminology minefield continues: do I use the term ‘people with disabilities’ or ‘disabled people’? Here, I am presented with a dilemma. The NZDS employs the term ‘disabled people’ as advocated by Oliver (1990). From this perspective disability is something experienced by people because of social structures – the way that society is set up and organised – not something they possess. The alternative construct of ‘people experiencing disability’ was also debated by the NZDS sector reference group, but discarded as over complicated. On the other hand, the State Services Commission (2008) and the MADT have adopted People-First Language, ‘people with disabilities’:

By placing the person first, the disability is no longer the primary, defining characteristic of an individual, but one of several aspects of the whole person. People-First Language is an objective way of acknowledging, communicating, and reporting on disabilities. It eliminates generalizations and stereotypes, by focusing on the person rather than the disability (The Arc, n.d.).

The MADT similarly refers to its service dog teams people-first, with the person named before the dog. I therefore use ‘people with disabilities’ and ‘disabled people’ depending on the work that I am referencing.

### 1.3.5.2 Physical disability in New Zealand

The first release of results from the 2013 Disability Survey (Statistics New Zealand, 2014) afforded a snapshot of disability in New Zealand today. Almost a quarter (24%) of the New Zealand population identified as disabled. Eighteen percent of New Zealanders aged 15 years or over (64% of disabled adults) reported long-term physical impairments that limit their ability to carry out day-to-day activities.
This is the most common type of impairment and includes people who have difficulty with, or cannot: walk 350 metres without resting; walk up or down a flight of stairs; carry an object as heavy as five kilograms for 10 metres; move from room to room; stand for periods longer than 20 minutes; bend over to pick an item up off the floor without support; or get in and out of bed independently. Physical disability increased with age (49% of people aged 65; 7% of people under 45) and was more prevalent in women (20%) than men (15%). Overall the most common causes of disability for adults were: disease or illness (42%); accident or injury (34%); and/or ageing (31%); 53% of disabled people were limited by multiple impairments. These figures indicate a need for tailored interventions to assist people living with physical disabilities; a Mobility Dog is one such response.

1.4 Thesis outline

This chapter introduced my research focus – a comparison of effects of companion dogs and service dogs (Mobility Dogs) on QOL in people with movement disorders – and charted its development as a feasibility study. To ensure clarity of understanding, I provided definitions of key terms: movement disorders, companion animals, service dogs, QOL and disability. National statistics reveal that New Zealanders have a strong affiliation with companion animals and that there is a need to identify interventions to support people living with movement disorders. Companion dogs and service dogs may be appropriate interventions for some people.

Chapter Two considers the human-animal interaction literature from the perspective of human health and well-being. My purpose is to highlight the complexities of conducting research in this field and identify gaps in the literature, which my study seeks to address. I focus on the roles of companion dogs and service dogs. This literature generally falls under the broad headings of physiological and psychosocial impacts. I also discuss some of the mechanisms and frameworks that have been explored to explain the ‘pet effect’ including the oxytocin and biophilia hypotheses, attachment theory and social support theories.

Chapter Three builds on the foregoing theoretical discussion to frame my study conceptually. I describe the pragmatic philosophical underpinnings of my study, then present the development of conceptual frameworks for QOL and disability. In so doing, I hope to identify some of the issues that may arise in a feasibility study incorporating QOL and disability (as the result of movement disorders) and thereby enhance my ability to offer insights from my findings.

Chapter Four links my philosophical assumptions with methodology and methods of data collection and analysis. I describe a prospective longitudinal case-oriented study design employing multiple methods of data collection: semi-structured, face-to-face interviews; walk-along interviews; observations; a photovoice assignment; and a quantitative measure of QOL. I address reflexivity: my position in the study as a former employee of the MADT and partner of one of the Trust’s canine ambassadors.

Chapter Five summarises and describes my human and canine participants before presenting my thematic analysis. Companion dogs and Mobility Dogs are compared across eight roles that potentially impact QOL: companion, protector, icebreaker, caregiver, empowerer, motivator, entertainer and tool/assistive technology. Participants’ photographs from the photovoice assignment and selected extended narratives complement this discussion.
Chapter Six assesses directly the feasibility of my study. I critique: my overall process and management including ethical considerations; recruitment and retention of participants; the appropriateness of data collection tools, methodology and methods; and my insider/outsider perspective. I demonstrate the ability of qualitative methods to illuminate quantitative measures of QOL.

Chapter Seven concludes my thesis. Based on my study, I suggest what future studies to compare effects of companion dogs and service dogs on QOL in people with movement disorders might look like. I also discuss possible implications for dogs as a QOL intervention in the long-term management of movement disorders and for service dog organisation policy and practice.
CHAPTER TWO
THE ROLES OF COMPANION AND SERVICE ANIMALS

“Take our dogs and ourselves, connected as we are by a tie more intimate than most ties in this world; and yet, outside of that tie of friendly fondness, how insensible, each of us, to all that makes life significant for the other! – we to the rapture of bones under hedges, or smells of trees and lamp-posts, they to the delights of literature and art” (James, 2009).

In this chapter I introduce the notion of the human-animal bond, and consider the body of literature that has amassed, largely over the past 35 years, to assess and explain the impact of companion dogs and service dogs on human health and well-being. I highlight the complexities of conducting research in this field and identify gaps in the literature that my study seeks to address. I first provide an overview of the historical development of the human-canine dyad, and the relationship that New Zealanders have developed with dogs over the past 700 years. Today, advances in the technologies of genetics and neuroscience are rapidly enriching what is known about the origins of the domestic dog, canine cognition and social and emotional intelligence. Indeed, evidence is emerging that dogs may be ‘more human’ than previously thought.

The human-animal interaction literature scatters across diverse disciplines including: medical sciences (such as cardiology, neurology and psychiatry); health-related professions (disability and rehabilitation, nursing, occupational therapy, exercise science and physiotherapy; animal behaviour and veterinary science; humanities and social sciences (sociology and psychology). To access this published and grey literature I first identified key words and synonyms. Key words used included: assistance dogs, service dogs, pets, companion animals, health, disability, QOL and movement disorders. Secondary words used in terms of movement disorders included: multiple sclerosis, muscular dystrophy, Parkinson’s disease, spinal cord injury, stroke and cerebral palsy. I searched these key words in multiple databases, especially Google Scholar because it is a generic, international, full-text database. I also interrogated specialist databases including Medline, PubMed, CINAHL and PsycINFO. To access grey literature I searched the University of Auckland direct portal to theses and dissertations, Te Puna: New Zealand National Union Catalogue, and the everyday Google search engine. Where appropriate I combined key words using advanced search functions and Boolean operators; for example, (service dog OR assistance dog OR mobility dog) AND (quality of life OR QOL). No search limits were applied. I browsed and manually searched the key electronic journal, *Anthrozoos*, because it is the foremost peer-reviewed journal dedicated to studies of human-animal interaction. Additional texts were brought to my attention by colleagues and supervisors. References were also sourced from seed documents through a process known as chaining. I set up Google Scholar alerts to remain current with relevant literature throughout my study.

2.1 ‘Man’s best friend’

Popularisation of the dog as ‘man’s best friend’ ostensibly originates from the closing argument of George Vest, addressing a Missouri courtroom, in 1870. Senator Vest, representing a client whose foxhound had been shot by a neighbour, delivered an impassioned oration, in lieu of closing testimony,
which became known as Vest’s ‘Eulogy on the Dog’: “The one absolutely unselfish friend that a man can have in this selfish world, the one that never deserts him, the one that never proves ungrateful or treacherous, is the dog” (United States Senate, 1990).

**2.1.1 The dog in history**

The dog, as a faithful companion, has been part of our history for thousands of years. Exactly how many thousand years is unclear. Carbon-dating of dog remains by archaeologists placed the earliest domestication of the dog at 14,000 years ago. This estimate was corroborated by discoveries of dogs buried with humans, in graves in Israel and Germany 12,000 and 14,000 years ago respectively (Bradshaw, 2011). Recently, analysis of whole genomes sequenced from wolves, in three hypothesised centres of domestication, supports the fossil record with domestication estimated between 11,000 and 16,000 years ago (Freedman et al., 2014). Tomb and cave paintings indicate a profound connection between ancient civilisations and animals. Animals were revered as partners in human survival, health and healing (Serpell, 2000a). What is clear is that dogs were domesticated well before any other animal. The dog co-evolved alongside man’s transition from hunter-gatherer to agriculturist and farmer to contemporary urban dweller, assuming a variety of roles in a shared need for shelter, food and protection. Dogs have served as guardians and guides, and as partners in hunting, fishing, herding and farming activities (Bradshaw, 2011; Walsh, 2009).

*Creature comforts: New Zealanders and their pets – An illustrated history* (Swarbrick, 2013) chronicles pet keeping over seven centuries in New Zealand. New Zealanders’ attitudes to companion animals reflect a fusion of pet cultures: of thirteenth-century Maori, eighteenth-century European explorers, nineteenth-century British settlers, and later arrivals from other countries. In a nation founded on a strong sheep and dairy farming economy, in which hunting and fishing are prime leisure activities, “the existence of a thriving pet culture alongside a deeply pragmatic approach to other animals is a paradox that cannot be simply explained” (p. 10).

The nation’s first dogs – kuri – were brought to New Zealand from other Pacific Islands by Maori in the thirteenth century. Kuri fulfilled ambivalent roles as: watchdogs; hunting companions; pets; sources of food; and providers of “raw materials for ornaments, tools, weapons and clothing” (p. 17). The role of hunter set kuri apart from other Polynesian dogs. New Zealand caves bear rock drawings of these dogs, and there is archaeological evidence of dedicated kuri burial sites. European dogs arrived in the eighteenth century with sealers, whalers and British settlers. There was tension between Maori and early European settlers regarding dogs as a source of food. The inevitable inter-breeding of kuri with European dogs heralded their extinction, and the consumption of dog meat ceased.

Swarbrick highlights distinctive features of New Zealanders’ historical relationship with companion animals. In a country populated by migrants from the other side of the world, companion animals provided “a welcome diversion during the long tedious journey” (p. 41) and helped settlers “overcome homesickness and adjust to a new life” (p.10). Emigration handbooks endorsed the transport of dogs to the new colony as rat catchers, watchdogs and protectors. The presence of a domestic dog in early colonial family sketches and portraits showed prospective emigrants that financial independence could be achieved in their new home. For some men, a dog was a sole companion in a male dominated colonial society reliant on heavy labour. As sheep farming developed, shepherds on large runs came to
rely on the expertise of their dogs: “the loss of a skilled dog was seen as a calamity” (p. 62). Inherent in a nation strongly rooted in farming, hunting and fishing, “many New Zealanders believe there is an impassable divide between pets and working animals, and treat them differently” (p. 10). This raises the possibility that perceptions of (working) service dogs in New Zealand and relationships between New Zealanders and companion dogs may differ from those in other countries. For example, are New Zealanders more or less prone to anthropomorphise – attribute human mental states to – their dogs?

2.1.2 The dog as human?

Anthropomorphism is often expressed in caretaking behaviours:

People throughout the world feed their animal companions on human food, give them human names, celebrate their birthdays, take them to specialist doctors when they become ill, mourn them when they die, and bury them in pet cemeteries with all the ritual trappings of a human burial (Serpell, 2003, p. 84).

Anthropomorphic thinking also interprets animals' social behaviour in human terms. Later I discuss the role of companion animals as proxies for human social support (2.8.3), so it is pertinent to consider the emerging evidence of similarities between human and canine neurology. Across the globe, dogs are credited with a social intelligence which renders them capable of socialising not only with other dogs, but also with humans. Genetic studies have found in excess of a 75 percent overlap between the human and canine genomes. Human and dog brain structures and workings of nerve cells share identical patterns of electrical activity and similar chemical compositions (Kirkness et al., 2003). It is therefore unsurprising that dogs are capable of understanding, and communicating with, close human companions in many ways. When it comes to reading cues to human behaviour from subtle hand gestures and glances, biological anthropologists have found the dog’s ability far surpasses that of closer primate relatives (Hare, Brown, Williamson, & Tomasello, 2002; Hare & Tomasello, 2002). This finding is endorsed from the field of cognitive science. Dogs may have acquired the superior cognitive ability to communicate with humans during evolution. As a result of the dog’s skill to interpret human-like visual cues, emotional bonding ensued (Nagasawa, Mogi, & Kikusui, 2009). Adding further support to the notion of dogs sharing human social and emotional intelligence, neuroscientist Gregory Berns ambitiously turned his attention from imaging of the human brain to the canine brain, to answer the question “What is my dog thinking?” In his book How dogs love us: A neuroscientist and his adopted dog decode the canine brain (2013), Berns presents the trials and tribulations of teaching first his dog, then others, to be comfortable in an MRI scanner in order to better understand their internal states:

We cannot ignore the striking similarity between dogs and humans in both the structure and function of a key brain region: the caudate nucleus … Do these findings prove that dogs love us? Not quite. But many of the same things that activate the human caudate, which are associated with positive emotions, also activate the dog caudate … The ability to experience positive emotions, like love and attachment, would mean that dogs have a level of sentience comparable to that of a human child (“Dogs are people too”, 2013).

This flags an interesting shift from conceiving of dogs as property to that of dogs as deserving of the rights of personhood; this is relevant to thinking about the roles of dogs as beyond utilitarian.

2.2 The human-animal bond

Given the substantial financial investment in companion animals (1.3.2.1) and the time and energy expended in their maintenance, it is reasonable to expect that human guardians receive much in return.
According to Archer (1997), “in evolutionary terms, pet ownership poses a problem since attachment and devoting resources to another species are, in theory, fitness reducing” (p. 237). On the other hand, Serpell (1986) asserted that pet ownership can be “genuinely ‘adaptive’ in the evolutionary sense ... since it contributes to individual health and survival by ameliorating the stresses and strains of everyday life” (p. 119). It is clear that many people claim companion animals provide them with affectionate attachments, often referred to as the human-animal bond (Beck & Katcher, 1996). This bond has been defined by the American Veterinary Medical Association (AVMA, n.d.) as:

A mutually beneficial, dynamic relationship between people and animals that is influenced by behaviors essential to the health and well-being of both. This includes, but is not limited to, emotional, psychological, and physical interactions of people, animals, and the environment.

Although Florence Nightingale (in Notes on Nursing, 1952) penned “a small pet animal is often an excellent companion for the sick, for long chronic cases especially,” academic interest in the human-animal bond did not gather momentum until the 1970s and 1980s when published proceedings of conferences attracted attention. The Delta Society, an international not-for-profit organisation with a mission to improve human health through service and therapy animals, was instrumental in establishing a research base. In 1987 the Journal of the Delta Society was re-launched as Anthrozoos, the first scientific journal devoted to the field of human-animal interaction (Hines, 2003).

Literature over the past 35 years has created the popular belief that ‘pets are good for us’ (Chur-Hansen et al., 2010; Wells, 2007). Research studies variously suggest that interacting with companion animals enhances human health and well-being. However, more critical commentaries (Chur-Hansen, et al. 2010; Herzog, 2011; McNicholas et al., 2005) maintain that a generalised ‘pet effect’ on human physical and psychological health has yet to be substantiated. Lack of replication has been a persistent problem. Randomised controlled trials (RCTs) to show the effectiveness of ‘prescribing an animal’ are negligible, and there have been few longitudinal studies. Small homogeneous samples, unstandardised measures and predominantly small effect sizes have characterised this research. Differences reported between pet owners and non-pet owners are difficult to interpret: do pets make people healthier and happier, or do healthier, happier (and wealthier) people acquire pets in the first place? (Collis, 1998; C. C. Wilson & Turner, 1998). Siegel (2011) neatly summed this up:

It is not only highly plausible that pet ownership promotes good health but also reasonable that health status influences ownership ... If sick people cannot take care of pets, they would be less likely to have them ... if sick people acquire a pet for companionship, to reduce isolation, and a means of coping with illness, they would be more likely to own a pet and it would appear that ownership is associated with poor health (p. 168).

Additionally, there has generally been a failure to control for other influences on human health including lifestyle and socioeconomic variables, personal health habits, levels of attachment to companion animals and the quality of human social support networks. Much research on the impact of pets on human health has treated companion animals as a generic group rather than species subsets of, say, cat, dog, bird, rabbit or fish owners. Specific attributes of particular companion animals – for example the age, sex and breed of dogs – have frequently also been overlooked. Similarly, details of: length of ownership; time spent in the company of; and the degree of responsibility for the care of companion animals have often been ignored. Given that the present work focuses exclusively on dogs, this review references, where possible, studies where dogs have been emphasised. However, it is inevitable that studies involving pets ‘unspecified’ are included. The literature can be broadly divided into studies from physiological and
psychosocial perspectives. In practice, however, making this distinction is simplistic as physiological and psychosocial factors interplay in complex ways (Wood, Giles-Corti, & Bulsara, 2005); taken together, these perspectives contribute to an individual’s self-reported QOL.

2.3 Physiological benefits of companion animals

From population studies a mixed picture emerges of a possible connection between pet ownership and health. Spanning over 20 years, these studies include several large datasets from Australia and others from China, Germany, Sweden and The Netherlands. Analysis of data collected from people attending a clinic in Melbourne indicated a greater risk of cardiovascular disease (based on blood pressure and plasma lipid concentrations) among non-pet owners than pet owners. Pet owners had lower systolic blood pressures and triglyceride concentrations: in male pet owners triglyceride and cholesterol concentrations were 13% and 2% lower than non-owners respectively. Although these differences were independent of other lifestyle-related risk factors (smoking, diet, body mass index and socioeconomic status) the authors were cautious in attributing a reduction in cardiovascular risk factors to pet ownership itself and recommended further investigation (W. P. Anderson, Reid, & Jennings, 1992). Headey and Grabka (2003) considered large representative sample surveys in Australia and Germany which measured proxies for physiological health such as number of medical visits, number of health problems and overall functional status. Notably, duration of pet ownership appeared salient with longer term pet owners – of at least five years duration – making about 10 percent fewer medical visits than those who had acquired a pet in the last five years and non-owners. Thus, tangible savings to healthcare budgets could be extrapolated: in Germany these were estimated to be in the order of 5.59 billion Euros, and in Australia AUS$3.86 billion. However, other large Australian surveys countered these findings (Jorm, et al., 1997; Parslow & Jorm, 2003).

A retrospective study (Mullersdorf, Granstrom, Sahlqvist, & Tillgren, 2010) based on data from a Swedish postal public health survey in 2004 explored the difference between pet owners and non-pet owners across aspects of health, physical and leisure activities, occupation and sociodemographic variables. Although the number of people surveyed was robust (n=25,006), only one question pertained to pet ownership and, again, it did not allow respondents to specify the type of pet or qualify other aspects of the relationship. Pet owners were identified as more often female, aged between 35 and 49 years and self-employed. They perceived their general health to be better, engaged in sufficient exercise to positively impact their own health, and enjoyed outdoor leisure pursuits. Again this tendency to opt for ‘natural world’ interests may reflect a basic difference between pet owners and non-owners. Conversely, compared with non-pet owners, pet owners in Sweden suffered more often from poor mental health and pain in the head, neck or shoulders. This supported the Australian finding that people who are predisposed to depression are more likely to seek a companion animal (Parslow, Jorm, Christensen, Rodgers, & Jacomb, 2005). However, no causal relationship has been demonstrated. For example, the greater level of depression among Swedish pet owners may be related to long-term pain associated with repetitive and monotonous work. Although non-pet owners in Sweden were more likely than owners to report cardiovascular disease, hypertension, diabetes and fatigue, visit healthcare centres and consume prescription drugs, these findings could also be explained by the higher mean age of this group.
In a population-based survey (Headey, Na, & Zheng, 2008) heralded as a ‘natural experiment’ of women residing in three cities in China, dog owners reported improved health outcomes. The sample was described as unique because dogs had been banned in Chinese urban areas before 1992. Dog ownership grew rapidly to 10 percent of households, especially among younger women. The sample comprised women aged 25–40: half owned dogs, half did not. Overall, dog owners slept better, exercised more frequently, had higher self-reported fitness and health and took fewer days off sick from work. Although they made less than half the number of doctor visits of non-owners, with an average of 2.92 visits per year, it is not possible to say whether healthier women chose to acquire a dog in the first place.

A large longitudinal study of women’s health in Australia examined the impact of living environments and sociodemographic variables on the likelihood of pet ownership in older (70+ years) women (Pachana, Ford, Andrew, & Dobson, 2005). Women living in family situations, houses (not flats/apartments or retirement villages), and rural areas were more likely to live with pets. These characteristics of living arrangements, and the ability of women to manage on their income, were indicative of better health. The authors suggested that confounding effects of sociodemographic variables on the opportunity for pet ownership may account for some of the inconsistent findings. A population study in The Netherlands (Rijken & van Beek, 2011) of community dwelling adults over the age of 65 living with chronic illness or disability, did not find a link between better self-reported general or mental health and pet ownership. However, having a dog was associated with being ‘healthy active’ in comparison to owning a cat. While these population studies are equivocal in their results, they have collected companion animal and health status data in different ways. Also, direct comparison of results between one country and another may be inappropriate because of cultural differences in attitudes to companion animals and health. The uneven results could also suggest that assessment of the impact of companion animals on human health and well-being is not amenable to the survey methods used.

If one study truly ignited research interest in the potential benefits of pet ownership to human health, it is that of Friedmann, Katcher, Lynch and Thomas (1980) which reported one-year survival rates following hospitalisation for heart attacks or severe chest pain to be greater among pet owners than non-pet owners: 5.7% of pet owners compared with 28.2% of patients who did not own pets died within a year of discharge from a coronary care unit. Pet ownership did not appear to compensate for other forms of social support such as being married or living with others. Although this study attracted criticism of its statistical analysis (Wright & Moore, 1982), it was replicated with a larger sample of patients and concluded that owning pets and having more social support tend to predict one-year survival (Friedmann & Thomas, 1995). This latter study also raised the possibility that some animal species provide benefits superior to others: dog owners were 8.6 times more likely to be alive in one year than those who did not own dogs. Cat owners were more likely to die, but this was confounded by levels of human social support, which were low among cat owners and those who died. These results were revisited with a survey of patients hospitalised with acute coronary syndrome (Parker et al., 2010). Rates of death and rehospitalisation were reviewed one year later, with the contrary finding that pet owners were more likely to have died or been readmitted to hospital; although, again, cat owners were more at risk than dog owners. Serpell (1991) also considered health benefits accrued by dog owners as distinct from cat owners. A group of people who adopted cats and dogs from an animal shelter were followed over a 10
month period alongside a group of people without pets. Overall, people who adopted animals experienced significant reductions in minor health problems including headaches, hay fever and painful joints one month following adoption. Dog owners maintained this decrease over 10 months whereas cat owners did not. Further, those who adopted dogs reported increased frequency and duration of walks at 10 months which highlighted the potential physiological benefits of dog-walking. However, this group also displayed a higher baseline level of walking, which suggests, again, that people who like walking are more likely to opt for a dog in the first place.

Cardiovascular disease presented a logical platform for further evidence-based research as the physiological indices of stress – blood pressure and heart rate – could be objectively and simply measured. Based on the premise that if the short-term presence of an animal can produce physiological benefits, long-term ownership will only augment these effects, researchers variously addressed physiological indicators of stress in the company of animals. For adults with normal and raised blood pressure watching fish swim in an aquarium, blood pressure decreased progressively across three scenarios; the effect was greater observing fish, than when looking at plants and moving water, or a blank wall (Katcher, Segal, & Beck, 1984). While, in general, people in the company of friendly domestic animals were rated as more friendly, less threatening, happier and relaxed (Lockwood, 1983; Rossbach & Wilson, 1992), it also appeared that individual attitudes toward animals may moderate cardiovascular responses to stressors (Friedmann, Locker, & Lockwood, 1993). This raised the possibility that “how people perceive pets might influence the benefits they receive from them” (p. 131). A friendly dog accompanying a researcher into children’s homes reduced blood pressures during both resting and reading tasks. The effect was greater for the children who had the dog present for the first half of the experiment, than those who had the dog present during the second half. This led to speculation that the presence of a dog renders an experimental situation less threatening (Friedmann, Katcher, Thomas, Lynch, & Messent, 1983). Lower levels of serum triglycerides (fats associated with increased risk for coronary events) were reported in senior citizens who lived with a pet (Dembicki & Anderson, 1996). The closest study to a RCT of dog ownership and its effect on blood pressure is that by Allen, Shykoff and Izzo (2001). Hypertensive stockbrokers commenced ACE (angiotensin-converting enzyme) inhibitor drug therapy, with some participants also receiving dogs. Six months later, the resting blood pressures for all participants were lower, but cardiovascular responses to mental stress were also lower in the group receiving dogs. This was supported in a recent study (Campo & Uchino, 2013) comparing cardiovascular responses to cognitive stressors in the presence of companion dogs and close friends perceived to be of similarly high relationship quality. Results indicated that companion dogs offer greater reductions in cardiovascular reactivity to stress, possibly because dogs are not perceived to have the same potential to evaluate task performance critically.

Certainly, the human-animal literature is peppered with inconsistency, and studies addressing the physiological response to stress in the presence of animals are no exception. Some have found the addition of an animal to a stressful situation makes no difference (Craig, Lynch, & Quartner, 2000; Straatman, Hanson, Endenburg, & Mol, 1997). Cardiovascular responses (blood pressure and heart rate) were elevated during tasks with animals present, but decreased more following a cognitive stressor if an animal had been present (Demello, 1999). These results suggested that the presence of an animal may influence stress responses, but not in all situations. Reflecting on studies of cardiovascular
measures in the presence of pets, Allen (2003) noted that the evidence was confined to responses to acute stressors; looking to the future, she called for prospective longitudinal studies of risk of cardiovascular disease in people living with, and without, pets. This is important because it recognised that simply being in the short-term presence of a companion animal may be a poor mirror of long-term health benefits.

With regard to measurable physiological indices in response to human-animal interaction, attention has recently turned to the neurochemical oxytocin and the strength of its role in bonding, socialisation and stress relief. An increase in oxytocin was observed in participants interacting with their own dogs (Odendaal and Meintjes, 2003). Dog owners on the receiving end of longer gazes from their dogs produced higher oxytocin levels (Nagasawa et al., 2009). A small study reported that an increase in oxytocin appeared to be particular to women (Kogan, et al., 2009). In an exploratory study of 10 women (Handlin, et al. 2011), heart rate and levels of oxytocin, cortisol and insulin were monitored in both dogs and their owners following a short-term interaction; the dogs did not show any effect, but the women's heart rates and hormone levels were influenced. Subsequently it has been proposed – based on a review of 69 studies on human-animal interactions – that activation of the oxytocin system is the mechanism underlying many reported physiological and psychological effects: “the existing evidence clearly points at the potential of interactions with animals, especially one’s own pet-dog, to increase OT [oxytocin] levels in humans” (Beetz, Uvnas-Moberg, Juliis, & Kotrschal, 2012, p. 12). The authors observed that experimental administration of oxytocin in animals and humans has been linked to a number of the same effects as seen in human-animal interaction: improved social attention, behaviour, interpersonal interaction and mood; reduced stress (as indicated by blood pressure, heart rate and cortisol); reduced feelings of fear and anxiety; and improved mental and physical health, particularly cardiovascular health. The identification of such a mechanism to explain how companion animals can benefit human health and well-being has been a fertile ground of enquiry. Before turning to a QOL framework, I discuss other mechanisms which have attracted attention later in this chapter (2.8).

2.3.1 Dogs as facilitators of exercise

Walking benefits health across a variety of conditions: “Walking is the most accessible and easily regulated exercise that can enhance health and cardiorespiratory fitness” (B. A. Franklin, 2006, p. 56). Regular walking has been associated with a reduction in the incidence of hip fractures (Joakimsen, Magnus, & Fonnebo, 1997) and an improvement in cardiorespiratory function (Blumenthal et al., 1991). Exercise can serve as an antidepressant (Singh, Clements, & Singh, 2001) and contribute to a reduction in both cognitive impairment and onset of Alzheimer’s and dementia (Adlard, Perreau, Pop, & Cotman, 2005; Laurin, Verreault, Lindsay, MacPherson, & Rockwood, 2001). A dog, in contrast to a cat, appears more likely to enhance physical health as it also provides motivation to exercise (Serpell, 1991). Dog-walking also garners social rewards in terms of meeting other dog-walkers, making friends and providing an icebreaker for conversation. Socialising effects of dogs are discussed later (2.4 and 2.7): here, the physiological benefits of exercising a dog are of interest.

Walking a dog has been identified as an effective strategy for increasing and maintaining physical activity (W. P. Anderson et al., 1992; Bauman, Russell, Furber, & Dobson, 2001; Cutt, Knuiman, & Giles-Corti, 2008; Dembicki & Anderson, 1996; Ham & Epping, 2006; Higgins, Temple, Murray, Kumm, & Rhodes, 2013; Oka & Shibata, 2009; Rijken & van Beek, 2011; Shibata et al., 2012). Two longitudinal studies
Cutt et al. (2008; Serpell, 1991) indicated acquisition of a dog led to increases in recreational walking. Cutt et al. (2008) followed 681 non-dog owners for 12 months. At follow-up, 92 of them had acquired a dog which resulted in a mean increase in walking of 31 minutes per week. In the study of Chinese women (Headey et al., 2008), dog owners exercised for 20 minutes or more, 36 percent more often than non-owners even after taking into account effects of age, education, income and other health-related variables on walking behaviour. However, these results could also be explained by dogs being the preferred companion animal for women who enjoyed walking prior to acquisition. It is further indicated that people do not acquire a dog for the sole purpose of increasing their physical activity: “their strong bond to, and ethic of care for … translated into routine walking as an expression of their affections” (Higgins et al., p. 245).

However, having a dog does not necessarily catalyse regular dog-walking. Although dog owners, who actively walked their dogs, walked more for leisure than did non-dog owners (2.0 and 1.8 hours per week respectively), over a third of dog owners did not walk their dog at all (Bauman et al., 2001). It could therefore be hypothesised that any physical health benefits to be accrued from dog ownership are restricted to those who walk their dogs. Telephone interviews with a population-based sample of 1,237 residents in Queensland, Australia, demonstrated “that the simple presence of a household dog displayed no relationship to the acquisition of sufficient levels of physical activity in the overall population” (Schofield, Mummery & Steele, 2005, p.15). However, respondents in households with medium or large dogs displayed “significantly more minutes of recreational walking per week than those with small dogs, or no dog at all … respondents who were involved in walking their household’s dog were more likely to meet established physical activity guidelines than those who did not” (p. 15). The authors suggested that this may explain why the relationship between general pet ownership and health benefits is often weak or inconsistent; positive health outcomes may be influenced by the number of actual dog-walkers in a particular study which in turn is influenced by the size and age of dogs, with smaller and/or older dogs demanding less exercise. It is pertinent to acknowledge here that the ability to actively participate in dog-walking for some people with movement disorders may be compromised, if not impossible. Rather than say that these people do not reap health benefits from their dogs, it is my view that dogs have the potential to impact health and well-being in other, equally important, roles. Physiotherapy researchers at the University of Otago, New Zealand, investigated dog-walking in healthy adults to inform how dog-walking might benefit people living with chronic conditions such as MS. Preliminary results suggested “many different ways that dog walking influences health and well being. We have noticed how many of our participants laugh frequently on dog walks and we know from the literature that laughter is a great health intervention” (University of Otago, 2013). Conversely: “We have also noted possible adverse effects on health like increasing stress levels when dogs are not behaving well.” This latter observation is a salient reminder that there are drawbacks to living with dogs and these cannot be ignored in an evaluation of their impact on QOL.

### 2.3.2 Adverse physiological effects

Contact with animals may have adverse physiological effects for some people in the form of infectious diseases, allergies, asthma, and inflicted injuries such as bites and scratches (Morrison, 2001; Plaut, Zimmerman, & Goldstein, 1996). Sensibly, these possibilities would be carefully considered before acquiring a companion animal. Others (Brodie, Biley, & Shewring, 2002; Edney, 1995) have concluded...
that the risk of contracting zoonoses from companion animals is minimal if simple animal healthcare guidelines are adhered to. Unequivocally, some dogs are unpredictable in their behaviour. The annual cost to the Accident Compensation Commission of dog-inflicted injuries in Auckland, New Zealand, in the year to June 2013, was NZ$1.15 million and for the whole country NZ$3.29 million (Bennett, 2013). The most common claims made by people for dog-related injuries were for laceration, soft tissue and dental injury as the result of being bitten, kicked or butted. Almost 2,200 of Auckland's 100,000 registered dogs were listed as “menacing.” However, 70 percent of pet owners would disregard advice to get rid of a pet owing to allergies (W. P. Anderson, et al., 1992), and the elderly may avoid medical care through fear of being admitted to hospital or residential care and having to relinquish their pet (Raina, Waltner-Toews, Bonnett, Woodward, & Abernathy, 1999). Evidence that companion animals are retained despite deleterious physiological effects suggests more potent factors cement human-animal relationships, which brings me to consider their psychosocial benefits.

2.4 Psychosocial benefits of companion animals

This capacity of dogs to enhance psychological health is underpinned by the perception of dogs as facilitators of social interaction, and as key components in human social support networks. Late in the eighteenth century William Tuke, a progressive Quaker, advocated for the introduction of animals to the York Retreat, an asylum in the north of England, on the premise that inmates could learn self-control by being responsible for animals. The idea that pets could benefit people with mental illness saw the introduction of animals to institutionalised care blossom in the nineteenth century, only to be discarded with the emergence and rise of scientific medicine in the early twentieth century (Serpell, 1986). Levinson, an American child psychologist, first introduced the concept of a dog as an adjunct to psychotherapy after observing one of his patients establish rapport with his companion dog, Jingles. Levinson (1962, p. 59) described a pet as “an island of sanity in what appears to be an insane world” and proposed that a dog could facilitate the discussion of difficult subconscious issues in a safe environment.

Almost 40 years ago, dogs were shown to be effective facilitators of social interaction in psychiatric and geriatric nursing homes. A group of dogs was introduced one floor below the dayroom of a psychiatric ward. Upon hearing dogs barking, some patients expressed an interest in visiting the dogs. A group of severely withdrawn patients who had not responded to traditional treatments were exposed to pet-facilitated psychotherapy. At first the patients related exclusively with the animals but later the dogs became a conduit to interactions with other patients and staff. Twenty eight of the patients showed improvement, five markedly. Those patients who assumed various caretaking roles – feeding and grooming – became more independent and also displayed improved personal care (Corson, Corson, Gwynne, & Arnold, 1975). The same group of dogs was later relocated to a nursing home, and again there was evidence of increased patient communication, more animated conversation and enhanced self-esteem (Corson & Corson 1980). Others have also reported that the presence of a dog in residential care resulted in happier, more alert and responsive patients. Dogs appeared to alleviate feelings of loneliness and provided impetus for longer conversations (Beck & Katcher, 1984; Bernstein, Friedmann, & Malaspina, 2000).

Companion animals have also been described as effectively providing a buffer to stressful life events. However, results are mixed. I suggest this reflects the complex interplay of physiological, psychological,
social and environmental factors on an individual’s perception of overall health and well-being. Elderly people living alone were in better psychological health if they resided with an animal; they were less lonely, more optimistic, more interested in planning for the future and less agitated (Goldmeier, 1986), and presented with relatively lower levels of depression (Garrity, Stallones, Marx, & Johnson, 1989). Fewer visits to health professionals, over a one year period, were reported by pet owners in a sample of elderly Medicare enrollees. Pet ownership moderated the impact of adverse life events including marital separation and bereavement, and, among pet owners, increased stress levels did not predict increased contact with physicians (Siegel, 1990). HIV-infected men with pets reported less depression than those without; this benefit of pet ownership was greatest among those with fewer human confidants (Siegel, Angulo, Detels, Wesch, & Mullen, 1999). However, the presence of pets in households of white married women, aged 65–75, was not related to happiness after accounting for demographic, health status and social interaction factors (Ory & Goldberg, 1983). Rather, the relationship between pet ownership and happiness depended on both the degree of human-animal interaction and the social context in which the women lived. Pet ownership associated with greater happiness was evident in the women described as ‘very attached’ to their pet; women who were ‘not very attached’ were relatively unhappy, even compared to those with no pets at all. Pet ownership associated with greater happiness was also correlated with higher socioeconomic status. Possibly this was because these women were not stressed by the financial burden of maintaining a companion animal. A shortcoming of this study was limited data on who ‘owned’ the household pet, and the minimal influence of pet ownership might also have been due to the relatively high level of social integration of the women in the sample. Pets have been associated with negative indicators of well-being for elderly women living in rural settings but positive indicators for women in suburban/urban settings; unhappiness was associated with a lack of a close relationship with a spouse (Ory & Goldberg, 1984). It seems reasonable to conclude that association with pets is often beneficial – both directly and as a buffering factor – during stressful life events, but the benefit may not occur for everyone (Garrity & Stallones, 1998). Similarly, the attributed psychosocial benefits of pet ownership, such as a lowered risk of depression, may not translate to a generalised improvement in physical health for everyone (Garrity et al., 1989; Stallones, Marx, Garrity, & Johnson, 1990).

Aside from institutional environments and elderly populations, companion dogs have also been recognised for a socialising role in the wider community. Dog-walkers in London’s Hyde Park had significantly more interactions with other people when they were out walking their dogs. Further, conversations, once initiated, were sustained for longer periods of time in the company of a dog (Messent, 1983). More recent studies have likewise observed that walking with a dog initiates a significantly higher number of spontaneous conversations with strangers, than when walking alone (McNicholas & Collis, 2000; Wells, 2004; Wood, Giles-Corti, Bulsara, & Bosch, 2007). A qualitative study explored dog guardians’ walking practices, with ‘dogs as social conduits’ being one of the four main themes to emerge: “The social consequences, from informal chats with other park users to establishing long-term walking groups, were perceived as enjoyable and rewarding aspects of dog walking” (Higgins et al., 2013, pp. 244–245). This ability of dogs to fulfil the function of a social lubricant, or ice-breaker, is further addressed in the context of people with physical disabilities partnered with service dogs (2.7).

In general, research indicates that companion animals have a positive impact on psychological well-being and, particularly in the case of dogs, facilitation of social interaction in the wider community, but
results are, again, inconsistent. It is perhaps most correct to say that companion animals appear to offer psychosocial benefits to different people, in different ways, in different situations.

### 2.5 Companion animals and QOL

The field of human-companion animal interaction has been slow to adopt a QOL focus. A commentary published 20 years ago (C. C. Wilson, 1994) proposed a QOL approach as a conceptual framework and called for research to identify specific groups of people who would most benefit from a pet intervention from a QOL perspective. Although several academics, prominent in the field at the time, endorsed QOL as a sound framework to unify research endeavours, there was little progress over the next decade.

Exploring the origin and evolutionary implications of anthropomorphism, Serpell (2003) commented, “people keep animals for companionship for essentially the same reasons that people wear overcoats to keep out the cold: because in doing so, they enhance their own health and quality of life” (p. 88).

Increasingly, human-animal researchers have called for less emphasis on physical and mental health status to a focus on the potential of companion animals to enhance QOL (McNicholas et al., 2005). However, evidence to date indicates that the best that can be said is that companion animals positively impact QOL but exactly how, and under what circumstances, remains unclear. It has also been suggested researchers could more usefully shift their attention away from whether companion animals facilitate good health and well-being to better understanding the circumstances under which they do (Siegel, 2011). The development of quantitative measures of QOL, widely adopted in health research, has provided the opportunity to explore the impact of companion animals on QOL with standardised and validated global assessment tools.

#### 2.5.1 Companion animals and QOL in New Zealand

One publication has addressed the impact of pet ownership on health-related QOL in New Zealand (Lewis, Krageloh, & Shepherd, 2009). This study of Auckland University of Technology undergraduates assessed the effect of pet ownership on QOL, as measured by the WHOQOL-BREF (WHO, 1996). Demographics and levels of attachment (assessed using the 6-item Pet Attachment Questionnaire, Garrity et al., 1989) with pets (cat, dog or other) were controlled for statistically. Consistent with previous studies, dog ownership produced significantly higher scores than other pets in the physical QOL domain. But, unexpectedly, ownership of pets other than cats or dogs yielded higher scores in the social domain. In the case of dog ownership this finding contradicts a wealth of previous evidence linking dogs to increased social interaction. The study also failed to demonstrate improved psychological health in pet owners; although females were more highly attached to pets than were males this did not impact the psychological domain. Results were also independent of whether respondents were the main caregiver of the animal or not. Compared with previous research, this New Zealand sample was relatively young and homogeneous – students 20–30 years of age – whereas much of the research historically has focused on elderly populations. It is also unclear from this paper whether the duration of pet ownership was assessed. It has been suggested that health benefits accrue with time (Headey & Grabka, 2003); therefore a longitudinal study may yield differences between pet and non-pet owners on a wider range of domains.
2.6 Companion dogs in support of people with chronic conditions

Little published literature has explored the impact of companion dogs specifically on the lives of people with movement disorders, although it is reasonable to expect that some of the studies of elderly populations have included people with movement disorders living with dogs. In fact, few human-animal studies of people with particular chronic conditions have focused exclusively on effects of companion dogs. Three exceptions are: the case report of a young woman with Parkinson’s (Zakeri and Bain, 2010), the prospective study of stockbrokers with hypertension (Allen et al., 2001), and a recent study of US military veterans with HIV/AIDS (Kruger, Stern, Anstead, & Finley, 2014). The last study explored perceptions of companion dog benefits on well-being and concluded that, overall, companion dog ownership had a positive impact: dogs encouraged physical activity, improved companionship, fostered a sense of responsibility, and reduced stress. Disadvantages to dog ownership included maintenance costs, behaviour problems, exposure to fleas, and allergies but “only 14% reported ever feeling as though having a dog was a burden” (p. 192).

Taking Zakeri and Bain’s (2010) notion of a four-legged therapist for a person with Parkinson’s disease beyond a companion dog, brings this review to service dogs. I acknowledge here another extensive body of literature on animal assisted interventions (AAI): “a broad term that includes what we have traditionally called “animal assisted therapy” or “animal assisted activities” (Fine, 2010, p.ix), most of which is beyond the scope of this discussion because interactions with these animals are intermittent rather than part of everyday life.

2.7 Service dogs

I expected the earliest studies to appear in the service dog literature would focus on what is purported to be the main purpose of a service dog: to provide functional assistance to mitigate physical disability. Therefore I was surprised to find that the first published articles – in the latter half of the 1980s – bypassed service dogs as a functional response to disability, to service dogs as a conduit to social inclusion. In general, able-bodied people display negative attitudes and feelings of awkwardness when interacting with people with disabilities (Kleck, Ono, & Hastorf 1966; Schneider & Anderson, 1980). For example, personal distance is greater when people interact with stigmatized individuals (Kleck et al., 1968). Goffman (1963) identified three different types of stigma: namely, ‘abominations of the body’ (physical deformities); ‘blemishes of character’ (mental disorders and unemployment); and ‘tribal stigma’ (race and religion). Stigma was defined as a discrepancy between a person’s ‘virtual social identity’ (what society assumes about a person) and their actual social identity (those attributes that a person can be proved to possess). Later, Jones et al. (1984) identified six dimensions of stigma: conceality (visibility); course (salience and prognosis); disruptiveness (during interpersonal interactions); aesthetics (attractiveness); origin (congenital versus acquired); and peril (threat of contagion). Visibility has been singled out as a key factor in the attribution of stigma (Crocker, Major, & Steele, 1998). This has immediate implications for many people with movement disorders who may experience social isolation because they walk with an unusual gait, display a persistent tremor or require assistive equipment for their mobility.

Indeed, in early service dog studies, the presence of these dogs with wheelchair users was associated with an increase in the number and quality of social greetings elicited from strangers. Passers-by in
community environments were more likely to smile and initiate conversation, which suggested that service dogs assist in normalising social interactions for people with disabilities (Eddy, Hart, & Boltz, 1988; Hart, Hart, & Bergin, 1987; Mader, Hart, & Bergin, 1989). Recently, Crowe et al. (2014) measured social interaction while shopping in three female service dog teams, both with and without their dogs. Three types of interactions were recorded: conversations; passing verbal greetings; and stopping to pet the dog. Overall, participants rated social interactions as more satisfactory when the dog was present. The number of social interactions was relatively low for all participants but results suggested service dogs increase social interactions. In a qualitative thesis (occupational therapy) of one adolescent girl with spinal muscular atrophy (SMA) partnered with a service dog, Onsager (2011) observed that: “The most powerful and unexpected finding was the significant social aspects of owning a service dog for the adolescent with SMA” (p.34). These social aspects were both positive and negative; the dog was an icebreaker in public situations, clearly shifting the focus from “that kid in a wheelchair” to “the girl with the dog” (p. 27). However, this shift was coupled with intense public interest in the dog – in the form of repetitive questions and unsolicited patting – which was tiresome for the girl, and perhaps also the dog. Short of avoiding public interaction altogether, over time, the girl adjusted her perception of the interest and assumed more of a public education approach to these conversations, teaching people how best to behave in the presence of a service dog. It is pertinent here to touch on a study of guide dogs for the visually impaired. Partnership with a guide dog has been described as a transformative experience resulting in a merged identity of the human and canine; “a transformation of the self” (Sanders, 2000, p.137). It is reasonable to suggest a similar transformation in service dog partnerships and that it will take time to adjust to a sudden shift in public focus from ‘that person in a wheelchair’ to ‘that person with the dog’, and feel comfortable with this new identity. The implication for my work is that a longitudinal design is necessary to capture the temporal nature of these relationships: recognising that relationships are unlikely to be static across either the human trajectory of living with chronic conditions or dogs’ lifespans.

The most recent systematic review of the service dog literature (Winkle, et al., 2012) concluded that evidence of the effectiveness of service dogs for people with physical disabilities is in its infancy. Twelve studies met criteria for inclusion: descriptive papers, review papers, dissertations and qualitative studies were omitted. All studies were rated as methodologically weak. Of major concern were small sample sizes, inconsistent terminology and inadequate descriptions of the intervention. The wisdom of using service dogs from multiple organisations in the one study was questioned as training standards and breeds of dogs used may differ. Also, some studies recruited mixed samples of service dog types – for example dogs partnered with people with mobility or hearing impairments – which made it difficult to interpret results. Mindful of these limitations, service dogs were associated with increased feelings of independence, confidence, personal safety, self-esteem and social integration. I find the omission of qualitative studies from this review curious when the reviewers later recommended “additional qualitative studies examining the meaningfulness of service dog use” (p. 65) as a direction for future research. This signals a need for feasibility studies to examine the appropriateness of methodologies and methods in this field.

Outwardly the most robust study in the service dog literature is the RCT by Allen and Blascovich (1996) which paired 48 people matched for age, sex, marital status, race, and nature and severity of disability.
Each of the 24 pairs was randomly assigned either to receive a trained service dog one month after the study began, or to a control group on a waiting list scheduled to be partnered with dogs in month 13. Data were collected at six month intervals over two years in the form of a suite of questionnaires designed to measure locus of control, self-esteem, mood, community integration and demographics, including the hours of paid and unpaid assistance received. Psychologically, all participants showed substantial improvements in self-esteem, internal locus of control, and well-being within six months of receiving their dog. Socially, all showed improvements in social integration. Demographically, all showed increases in school attendance and/or part-time employment. Economically, all showed dramatic decreases in paid and unpaid assistance hours. The authors acknowledged that the ability to generalise from this study was limited by the recruitment of participants from disability advocacy groups (little is known about the difference between people who join these groups or not), and the deliberate selection of people who wanted a service dog. However, the authenticity of this study was challenged with respect to the absence of detail (particularly on how these service dogs were trained), the high reported response rate to questionnaires (all participants completed all questionnaires), and the magnitude of the effect sizes: “Significant positive changes in all but two dependent measures were associated with the presence of a service dog both between and within groups (p<.001)” (Allen & Blascovich, 1996, p.1001). Criticism came largely from the very group expected to be most excited about these results: assistance dog organisations claiming “unique expertise that cannot be duplicated by an independent dog trainer” (Rowan, 1996, p. 4). Allen became embroiled in a debate about approaches to dog training and the logistics of providing service dogs. Regrettably, the resultant furor possibly deterred the widely cited Journal of the American Medical Association from publishing further articles on this subject.

Subsequently, a cross-sectional study (Fairman & Huebner, 2001) surveyed 202 North American service dog owners. All the dogs were trained by CCI and 94 percent of respondents were partnered with dogs trained to assist with physical disabilities. Key activities of daily living with which dogs provided assistance were: getting around the community (84%); getting around the house (78%); obtaining communication devices (72%); dressing (48%); grooming (44%); and emergency responses (43%). In terms of specific tasks, dogs: retrieved dropped items (99%); fetched the mail and/or newspaper (61%); and switched lights on and off (57%). Further, participants in this study retrospectively reported using two fewer hours of paid assistance, and six fewer hours of unpaid assistance, each week. Psychological benefits were also noted. Participants: felt safer (91%); more independent (88%); more in control of their lives (83%); more confident (81%); participated more in activities (80%); and felt better about themselves (75%). Consistent with earlier research, all respondents reported social benefits with more people approaching them in public (100%) and an increase in social interactions (87%). Similarly, Lane, McNicholas and Collis (1998) found that 57 recipients of Dogs for the Disabled (United Kingdom) reported more people stopping to talk to them (92%) and having more friends (75%). These service dog partners also relaxed more (69%) and worried less about their health (56%).

Camp (2001), an occupational therapist, employed an ethnographic methodology to observe and interview five service dog owners in Washington State. Her aim was to describe the use of service dogs, and the meaning of this experience, with an eye to possible implications for considering service dogs as an alternative ‘assistive technology’. The literature indicated that compliance with assistive devices to
compensate for functional deficits was poor – the rate of abandonment as high as 75% (Scherer & Galvin, 1994) – and few occupational therapists (27%, Zapf, 1998) recommended service dogs. The five participants, recruited “to characterize the variability of the experience of service dog ownership” (p. 511), had been partnered with a service dog for at least six months, and had received their dogs via an established training programme. The study addressed four key areas: service dogs as an adaptive strategy; benefits of service dog ownership; drawbacks of service dog ownership; and the meaning of using a service dog. Overall, participants reflected positively on their experience particularly in relation to: increased independence (dogs provided a means of completing tasks); social participation (dogs facilitated social contact); and sense of self-efficacy and responsibility (dogs helped restore occupational roles lost as the result of disability). Service dogs as an adaptive strategy provided functional assistance with a range of daily tasks – particularly retrieval of dropped items – and increased participation in leisure activities. Benefits included “companionship, independence, increased self-esteem, security, increased social contact, skill development and fun” (p. 513). The most common topic in interviews was the unique relationship participants have with their dogs: “closer than family” (p. 513). Camp found participants reluctant to talk about drawbacks of service dogs, preferring the terms responsibilities and challenges. These included: feeding, grooming, exercise, maintaining training levels, commitment of time and money, and dogs not doing as requested. Participants reflected on an initial period of adjustment, learning to handle effectively and integrate dogs into their lives. This demanded patience and sometimes required the development of personal skills: consistency, giving praise, showing emotion and assertiveness. The meaning of a service dog partnership was distilled to a “sense of independence” (autonomy), “someone to watch over me” (security), and “I feel like an able-bodied person” (dogs shift focus from disability to ability) (p 515). Camp concluded that because service dogs “enhance independence in occupational performance areas and contribute to improvements in psychosocial functioning” (p. 509) occupational therapists should recommend service dogs as a long-term adaptive strategy for some clients. What Camp’s study did not address is if or to what extent companion dogs may also fulfil these roles.

A different perspective was offered in a cross-sectional study (Collins et al., 2006) that specifically examined the influence of service dog partnership on psychosocial well-being and community participation among adults using wheelchairs or mobility scooters. The sample comprised 76 participants with service dogs (trained by a variety of organisations) matched with 76 participants without service dogs on the basis of gender, age and the progressive/non-progressive nature of their disability. Psychosocial measures of affect, depressive symptoms, self-esteem and loneliness did not yield differences between the two groups. However, among those with progressive conditions, people partnered with service dogs tended to more positive affect. The key predictors of community participation were not service dogs but rather being female, married, and having fewer depressive symptoms. The authors concluded that select individuals may benefit from being partnered with service dogs but – significantly in the context of my thesis – it was unclear if these benefits may equally characterise owners of companion dogs. This brings me back to my research question; there is a need to explore the benefits and drawbacks of each category of dog. This will aid understanding of the role of dogs as proxies for human assistance and assistive technologies for people with movement disorders.

I have flagged that the benefits of partnership with a service dog are unlikely to be immediate. Further support of this belief is evident in several studies. A small longitudinal pilot study (with a mixed sample of
people with either mobility or hearing impairments) over six months found no difference in physical independence, mobility, productive use of time, and physical or mental health status (Rintala, Matamoros, & Seitz, 2008). Six months was perhaps insufficient to measure significant improvements, but the study also overlooked psychosocial measures which might have better assessed the more immediate effects of the dogs. Likewise Donovan (1994) deemed four months partnership with a service dog insufficient to observe effects. Recently, in a summary of methodological considerations for qualitative researchers designing and evaluating animal-assisted interventions, a prospective longitudinal approach was endorsed: "Collecting data at different points of time would be useful to determine if feelings and experiences changed over time; for example before, during, and immediately following the intervention and in the longer term" (Stern & Chur-Hansen, 2013, p. 136).

The service dog studies that I expected to find first published in the rehabilitation literature – taking a more medical, functional assistance stance – have appeared only recently. These studies seek to quantify the ability of service dogs to increase functional performance in various scenarios. Crowe et al. (2014) measured time and perceived amount of effort to complete a variety of tasks (picking up items from the floor, opening a door, fetching a phone, picking up a dog bowl and placing it in the sink) among three women with service dogs. Service dogs decreased the time taken to execute four of six tasks and decreased the perceived effort in five of six tasks. A Canadian pilot study demonstrated that using the traction of a service dog increased the distance covered by manual wheelchair users, and decreased shoulder pain and intensity of effort (Hubert, Tousignant, Routhier, Corriveau, & Champagne, 2013). Vincent et al. (2013) also found wheelchair users were able to travel longer distances in shorter times on both flat and sloping terrain with the assistance of Canadian service dogs. These dogs also improved their partner’s performance mounting a threshold/curb and picking up items. (Note: Mobility Dogs are not trained to pull wheelchairs over long distances; Mobility Dogs, wearing an approved harness, provide traction over only relatively short distances – for example up a gently sloping ramp in a shopping mall – and these dogs are carefully matched to the combined weight of the person plus wheelchair.). A Japanese study (Noguchi, Hoshiyama, & Tagawa, 2012) measured the kinesiological effect of bracing assistance provided by service dogs on the ability of people with rheumatoid arthritis to transfer from a sit to stand position. While service dogs provided benefits with such transfers, the authors cautioned that there is a need to train dogs to assume correct positions and use appropriate timing to best support their partners.

In my view, studies of this genre are missing the point. A service dog is not simply about functional assistance: whether items can be picked up more quickly or wheelchairs can travel further or faster. There are other potential benefits, but also added responsibilities, that come with a service dog.

2.7.1 Service dog drawbacks

It is important to acknowledge positive and negative aspects to partnership with a service dog. A service dog is not an assistive device that can be ignored or discarded. There is the cost of financing the ongoing maintenance of the dog. The MADT advises clients to budget for NZ$1,500–$2,000 per year. A highly trained dog may not always perform tasks reliably, and it is the responsibility of the recipient to maintain the requisite level of behaviour and training. Fairman and Huebner (2001) reported behavioural problems at home (1.5%) and in public (2.5%), and difficulties with managing physical maintenance of the dog, including bathing and clipping nails (7.4%). However, 80% of respondents desired additional task training with their dogs which suggests, to me, that there were more problems here than
acknowledged. Another drawback can be interference from members of the public, distracting the dog from its role (B. W. Davis, Nattrass, O’Brien, Patronek, & MacCollin, 2004). A small study of current and prospective hearing dog owners reported that prospective owners may harbour idealistic expectations: aggression to people or other dogs, barking and destructiveness were problems reported by 50% of the participants with hearing dogs but anticipated by only 13% of those waiting for a dog. Problems with dog care (18.6%) and travel complications (31.6%) were also reported by owners (Hart, Zasloff, & Benfatto, 1995).

Indeed, some Mobility Dog placements have been unsuccessful for a variety of reasons including: unexpected health-related conditions in both recipients and dogs, recipients’ unrealistic expectations of what a dog will do, changes in living arrangements that preclude living with a dog, problem behaviours inherent in the dog that were not apparent (or insufficiently addressed) during training, and the inability of recipients to maintain the required level of training post-placement. The MADT conducted an in-house review in 2012 of the Trust’s first 20 placements, and identified a need for a more robust application process to counter some of these potential problems. Although some of these issues are inextricably linked to the limited funding of a small not-for-profit organisation, they are also encountered in well established assistance dog programmes. Locally, a doctoral thesis (Lloyd, 2004) investigated the match between 50 current and/or previous guide dog owners to identify why some guide dog partnerships succeeded whilst others – about a quarter in this study – did not. Overall, successful partnerships were based on better compatibility between the handler and the dog, and whether the dog fulfilled the handler’s a priori expectations. Unsurprisingly, the ability of the handler to control the dog was crucial to aiding mobility; some useful vision, accurate assessment of a guide dog’s workload, and a good relationship with the guide dog instructor also fostered success. Companionship and enhancement of social interactions helped to cement a match.

It is crucial that service dog organisations provide sufficient ongoing support post-placement. One of the most difficult problems that service dog partners will face – highlighted in studies of predominantly guide dog partnerships – is the retirement and/or death of their dog. For some, the loss of a dog may be on a par with that of a loved family member (Gosse & Barnes, 1994; Nicholson, Kemp-Wheeler, & Griffiths, 1995; Kwong & Bartholomew, 2011). A shortcoming of the Guide Dogs for the Blind Association process was identified when it came to recognising “the emotional consequences of guide dog partnerships” (Nicholson et al., 1995, p.108). In the same way that guide dog partners need support and encouragement at the start of a working relationship, the study indicated that this is also required when a partnership comes to a conclusion, “a fact which is likely to be relevant to all types of assistance dog partnerships” (p. 109). This raises the important issue that service dog partnerships are not just about relationships between recipients and their dogs, but also recipients’ relationships with the organisations that provide their dogs.

2.7.2 Service dogs and QOL

Several service dog studies have employed a QOL focus. A cross-sectional study (Milan, 2007) of 99 people partnered with service dogs for at least 14 months compared QOL with 115 people not partnered. Indicators of QOL used were: paid and unpaid assistance; mobility; physical independence; social integration; occupation; economic self-sufficiency; self-esteem; depression; and loneliness. After controlling for other variables (years with disability, ethnicity, marital status and prognosis) the service
dog group scored higher on mobility but other indicators of QOL did not yield statistically significant results. A shortcoming of this study was that data pertaining to companion animals were not collected: therefore some people in the comparison group possibly lived with companion dogs, which may have influenced the comparative effects of a service dog partnership. A small study (Shintani et al., 2010) employed the SF-36v2 (Medical Outcomes Study 36 Item Short-Form Health Survey, Version 2.0) and found that service dogs alleviate the mental burden of daily activities and improve the physical function of their owners. Following on from Camp’s (2001) ethnographic study of five service dog partnerships, Rabschutz (2007) explored effects of service dogs specifically on two sources of well-being: self-esteem and social-connectedness. Her mixed methods doctoral study of 15 adults partnered with assistance dogs (a mix of service dogs and hearing dogs) combined surveys, semi-structured interviews and observation over two interactions – pre- and post-placement with a service dog – six months apart. Results indicated that in addition to mitigating the functional limitations of disability, as anticipated, service dogs also enhanced self-perceptions and relationships with others: “Partnering with an assistance dog doesn’t “cure” anything, but it can provide rehabilitation beyond functional recovery and improve quality of life for persons with disabilities” (Rabschutz, 2007, p.125). This recognition that service dogs provide more than functional assistance to enrich their human partners’ QOL underpins my study. I present a conceptual model of QOL in Chapter Three (3.2), but first I discuss other theoretical frameworks which have been interrogated to further understanding of the human-animal bond.

2.8 Theoretical frameworks to understand the human-animal bond

In addition to the physiologically based oxytocin system hypothesis (2.3), several key theoretical frameworks have been proposed to explain the mechanisms underlying the human-animal bond, and illuminate how animals may benefit human health and well-being. These frameworks deserve attention because concepts inhered in the biophilia hypothesis, attachment theory and social support theories may all contribute to an individual’s QOL.

2.8.1 Biophilia hypothesis

Almost 70 years ago, ethologist Lorenz stated that “the wish to keep an animal usually arises from a general longing for a bond with nature … This bond is analogous with those human functions that go hand in hand with the emotions of love and friendship in the purest and noblest forms” (1943, cited in Hines, 2003, p. 8). E. O. Wilson – the father of sociobiology – formally proposed a biophilia hypothesis, an “innate tendency to focus on life and lifelike processes” (1984, p. 1). The biophilia hypothesis offers an evolutionary-based explanation of why people today care for animals, keep plants and flowers in their homes, visit zoos and national parks, and pursue leisure activities in natural environments. Put simply, as a consequence of evolution, human beings have a genetic predisposition to be attracted to animals and other living things. Historically, hunters, gatherers and farmers more attuned to animals increased their chances of survival because shifts in animal behaviour alerted them to both rewards and dangers in the environment; dogs likely played an important role in this regard. It is argued that the notion of biophilia is bolstered by evidence of biophobia, an innate avoidance of environmental stimuli. An example of biophobia is the common fear of snakes. In hunter-gatherer societies, direct observation of people being bitten by venomous snakes, or vivid witness reports, were possibly sufficient to condition subconscious aversive responses (E. O. Wilson, 1984). It is suggested that enhanced well-being in the
presence of animals “is consistent with the proposal that predispositions that evolved in our ancestry environment, and that involved certain cognitions and affect, continue to be present today despite their more limited relevance for modern humans” (Gullone, 2000, p. 305). Drawing on cross-cultural research of schizophrenia and depression, Gullone voiced concern that contemporary lifestyles in the industrialised Western world jar with human evolutionary history, and this associated dislocation from natural environments contributes to adverse outcomes in mental health. Therefore, integrating more elements of the natural world – including companion animals – to modern lifestyles will benefit human health and well-being.

Similarities have been observed between the biophilia hypothesis and Levinson’s earlier notion of the innate, unconscious ‘animal within’, influenced by Freud’s psychoanalytic theories and interpretation of animal imagery in dreams (Serpell, 2000b). Positive relationships with companion animals therefore restore a healing connection with the unconscious; an evolutionary connection that has been disrupted in the course of civilisation and urbanisation. Serpell asked: “To what extent, then, can relationships with companion animals help to heal this psychic rift?” (p. 117) and argued that the answer is a fusion of, both the animal and our relationship with it. The mediating power of pets evidently rests on their liminal, intermediate properties – their ambiguous mix of human and non-human characteristics ... If we are willing to accept and appreciate the animal as well as the human attributes of our pets by allowing them the freedom to express at least most of their natural behaviour, they may indeed provide us with a means of overcoming … ‘the existential loneliness’ of our species (pp. 117–118).

Recognition of both the companion animal and the nature of its relationship with a guardian, in the mediation of human health and well-being, is an appropriate juncture at which to introduce attachment theory.

2.8.2 Attachment theory

As human-animal studies continued to produce uneven results with inadequate evidence of causation, the spotlight fell on the degree of attachment that people have with their pets. Bowlby (1969, 1979) authored attachment theory to explain the close bond of affection that typically develops between a parent and child. Attachment theory comprises four components: proximity seeking and maintenance (approaching and staying near a caregiver); separation anxiety (resisting and becoming distressed by separations from a caregiver); secure base (using a caregiver as base from which to explore); and safe haven (turning to a caregiver for comfort when distressed). Attachment as a key variable in understanding the benefits of pet ownership was investigated with the development of a six-item pet attachment instrument (Garrity et al., 1989). A strong level of attachment to pets in an elderly sample was associated with lower levels of depression. For people with minimal human social support, stronger attachment to a pet was related to fewer reports of recent illness. A limitation of this study was that the pet attachment instrument was not sufficiently discriminating; most pet owners scored highly. As momentum gathered around attachment theory and the human-animal bond, further psychometric instruments were designed (Staats, Carnot, Rada, & Turnes, 1996; Stallones et al., 1990). A problem identified in generic pet attachment measures was that dog owners were more likely to attain higher attachment scores than cat owners. When two items pertaining to dogs were included in the Comfort from Companion Animals Scale (“My pet makes me feel safe” and “I get more exercise because of my pet”) dog owners showed significantly higher levels of attachment (Zasloff, 1996). The 15-item Owner-
Pet Relationship (OPR, Winefield, Black, & Chur-Hansen, 2008) questionnaire added new items, based on Bowlby’s attachment theory, to these earlier pet attachment scales to capture potential emotional support, proximity-seeking and reciprocity in pet ownership. The OPR was administered together with social support and health measures. Findings suggested that pet ownership is not necessarily beneficial – high levels of attachment to pets may be detrimental to health – whereas exercise and satisfying human social support were reliably related to good health. S. P. Cohen (2002) also found that a high level of attachment to a pet was associated positively with physical health but negatively with mental health. However, it is not clear which comes first: extreme attachment to pets or having a smaller network of social support to begin with. A curvilinear relationship (an inverted U curve) may exist, with optimal benefits of pet ownership to health realised at moderate levels of attachment (Chur-Hansen, Winefield, & Beckwith, 2009). Further evidence that pet attachment (as measured by the Lexington Attachment to Pets Scale (LAPS, T. P. Johnson, Garrity & Stallones, 1992)) is positively associated with depression was found in a sample of rural older adults (Militades & Shearer, 2011). Higher levels of depression were also associated with widowhood while the ability to meet the dog’s needs (food, housing and medical) and satisfaction with human relationships were indicative of lower levels of depression.

Consistent with Bowlby’s theoretical construct of attachment, Enders-Slegers (2000) found ‘attachment, emotional closeness’ (defined as love for the pet and a desire to maintain close proximity) as the most important social provision offered by a relationship with a pet in the lives of the elderly. ‘Proximity maintenance’ and ‘secure base’ were identified as the most salient features of attachment in dogs, and dogs exhibit proximity maintenance equally as well as fathers and siblings (Kurdek, 2008). There is the suggestion that attachment to pets is stronger in women (Chur-Hansen, et al., 2008; Smolkovic, Faifar, Mlinaric, 2012), and especially prior to women having children, or after children have left home (Turner, 2001). Strength of attachment to pets may also increase with time, and be greater amongst those with pedigree dogs in which more money has been invested (Smolkovic, et al. 2012). It has also been suggested that the most important predictor of attachment may be involvement in caregiving and the number of hours physically spent in the presence of the pet (S. P. Cohen, 2002; Kurdek, 2008).

Surprisingly, the number of hours actually spent with pets has rarely been included in studies. This may be highly salient to service dog partnerships because the human and canine partners are rarely apart.

Indeed, caregiving has been found to be at least as important in emotionally close human-canine relationships as the attachment dynamics of ‘safe haven’, ‘secure base’ and ‘separation anxiety’ (Kwong & Bartholomew, 2011). Of particular relevance to my study, the authors worked from the premise that people with assistance dogs would potentially offer richer insights to human-canine relationships due to the one-on-one, interdependent nature of these partnerships. This qualitative study comprised 25 people partnered with assistance dogs (22 guide dogs; three service dogs for people with ambulatory difficulties) who had experienced the loss of a dog to retirement or death. Consistent with attachment theory, most participants experienced grief responses to the loss of an assistance dog on a par with the loss of a significant other from a caregiving relationship:

During separation and loss, participants’ caregiving systems appeared to take precedence over their attachment system, as reflected in participants’ primary concern about the well-being of the dog ... These findings suggest that our needs for attachment and caregiving are so fundamental that they can be satisfied by relationships with other species ... relationships with domesticated dogs provide ideal conditions for triggering human attachment and caregiving systems (p. 433).
Few studies of pet ownership have paid attention to the behaviour of the actual pet, or the owner’s perception of the behaviour or the pet (Serpell, 2003). Previously, he demonstrated that an owner’s professed attachments for his/her pet are largely contingent on his/her evaluations of the animal’s behaviour (Serpell, 1996). Notably, a New Zealand study (Budge, Spicer, Jones, & St George, 1998) considered the impact of the perceived compatibility of people with their pets – alongside standard measures of both attachment and social support – as a predictor of health status, where compatibility was defined as “the fit between the animal and the owner on physical, behavioural and psychological dimensions” (p. 219). Data were gathered in a self-report postal survey of 176 people living with a companion animal for at least one year. Compatibility was correlated with better overall mental health (enhanced well-being and affect; reduced anxiety and distress) and fewer physical symptoms of ill-health. These findings were independent of levels of attachment and social support. Again, there was the suggestion that high attachment to pets is associated with poorer physical health, with higher levels of social support associated with better mental health:

Perhaps a good, interactive relationship with a companion animal increases feelings of happiness, releases tension, and adds to the quality of life so that people are less affected by health problems and feel more positive about themselves, their health, and their lives in general (Budge et al., p. 229).

Peoples’ perceptions of their pets’ personalities may also impact physical and psychosocial well-being. ‘Own pets’ were evaluated more favourably than the ‘average pet’ on 22 personality traits, and this pet enhancement bias was also positively correlated with pet attachment, pet-self similarity and self-enhancement (El-Alayli, Lystad, Webb, Hollingsworth & Ciolli, 2006). Perceived pet-self similarity, in particular, was linked to enhanced psychological well-being. But again, stronger pet attachment did not necessarily indicate greater well-being; rather “moderate pet attachment may be associated with the most well-being” (p. 140). This is reinforced by the notion of a curvilinear relationship, between pet attachment and human health (Chur-Hansen et al., 2009).

It has also been argued that individual characteristics and experiences, embedded in cultural and historical contexts, impact how people understand and relate to their dogs irrespective of where they sit on the attachment continuum (Blouin, 2013). Twenty eight dog owners exhibiting relatively low, average and high levels of attachment (the precise measure of attachment was not specified), were recruited for in-depth interview. Three analytical orientations – representing distinct social constructions – were described: “doministic” (dogs viewed as relatively lower status than humans but valued for uses they provide); “humanistic” (dogs anthropomorphised and elevated to the status of beloved humans characterised by intense emotional attachments); “protectionistic” (high regard for dogs and animals in general). Further, acknowledging the complexity of human-animal relations, individuals may simultaneously embrace aspects of different orientations, and shift between orientations over the life course. Usefully, Blouin’s typology – acknowledging the shifting, temporal nature of human-canine relationships – may inform “the often ambiguous and contradictory relations between people and pets” (p.279). This work also reinforces an earlier point: the potential of companion dogs to benefit human health and well-being may vary across cultures.

Attachment theory as the primary theoretical framework to understand the human-animal bond waned in favour of investigating the human-companion animal relationships from the perspective of psychosocial support. Some attachment theory studies have also included social support measures. Here,
attachment theory becomes enmeshed as part of a broader theoretical framework, insofar as an individual's level of attachment to a companion animal may influence the relative importance of this animal in his/her wider social support network, and vice versa.

2.8.3 Social support theories

Addressing the School of Population Health, University of Auckland (August 28, 2013) New Zealand's first Disability Rights Commissioner, Paul Gibson, stated that social support, rather than level of impairment, is associated with improved QOL for disabled people in New Zealand. Over the past 30 years many publications have related to social networks and social support (Berkman, Glass, Brissette, & Seeman, 2000; S. Cohen, Gottlieb, & Underwood, 2000). However, “there is little agreement among the scientific community in regard to a precise definition of social support” (S. Cohen, 1988, p. 270).

Durkheim’s 1897 work on the social patterning of suicide – based on observations that countries, geographical units and social groups have stable annual rates of suicide – theorised that the social integration of the group is key (Berkman, et al., 2000). The observation that some people appear to cope better with stress than others underpinned early research in social support. Meaningful social contact (the presence or absence of social relationships) was conceptualised as a key factor (Cassel, 1976). Cobb (1976) defined social support as “information leading one to believe they are loved, esteemed and belonging to a network of mutual obligation” (p.300) and proposed that social support offers protection to people in crisis from the cradle to the grave, across the broad spectrum of physical and mental health. Others made distinctions between: emotional support (provides trust and love); informational support (provides information and advice); instrumental support (provides material support and/or actual help); and esteem support (makes a person feel valued) (House, Landis, & Umberson, 1988). Some models have linked “social integration” (an index of social ties including marital status, close family and friends, participation in group activities and religious affiliations) and the "perceived availability of support" to the onset of disease and its progression (Eriksen, 1994; S. Cohen, 1998).

Others have eschewed the generic term social support, preferring “social relationships” (S. Cohen et al., 2000, p.4); social support refers specifically to the social resources that people perceive to be available or that are actually provided by non-professionals. Although it is clear that associations between social support and relationships and health are complex – and evidence is mixed – a substantial body of medical literature reports a positive link between social support and health and well-being across the lifespan (Cobb, 1976; S. Cohen, 1988; House et al., 1988; Sherbourne, Meredith, Rogers, & Ware, 1992). Sharing common ground with studies investigating the physiological impact of companion animals on human health, considerable attention has been paid to the role of social support in determining the prognosis of people with cardiovascular disease (D. Anderson, Deshaies, & Jobin, 1996; Bunker, et al., 2003; Andre-Petersson et al., 2007; Eriksen, 1994; Lett, et al. 2005). And while close relationships buffer stress associated with the onset of cardiovascular disease, for patients with existing heart disease, extended networks with others in a similar situation may be more important (Antonucci & Johnson, 1994).

2.8.3.1 Companion animals and social support

There has been considerable interest in the potential of companion animals to offer social support, akin to that provided by people, in the promotion of human health and well-being. Almost 30 years ago it was observed that: “One important “significant other” that often goes unrecognized in professional circles is
the companion animal with whom many elders share their daily lives” (Erickson, 1985, p. 92). Just as humans develop close bonds of affection with other people, so too can they develop strong emotional ties with their pets (Archer, 1997). Companion animals have been described as providing social support in and of themselves; many pet owners view their pet as an integral part of the family; they may treat their pet as a child and speak to it as though it is a baby (Blouin, 2013; S. P. Cohen, 2002; Serpell, 2003). Social support derived specifically from pet ownership was broken down to five components: emotional support; social integration; esteem support; practical, instrumental or informational support; and opportunities for nurturance and protection (Collis & McNicholas, 1998). People had no difficulty evaluating companion animals when using the The Network of Relationships Inventory designed to evaluate kinds of social support received by humans: notably, dogs were scored higher than humans on ‘reliable alliance’, ‘nurturance’ and ‘companionship’ (Bonas, McNicholas, & Collis, 2000).

Weiss’ theory of social provisions (Weiss, 1974, 1988) was employed by Enders-Slegers (2000) to frame research on companion animals as a form of social support. Enders-Slegers hypothesised that the human-companion animal bond enhances QOL by providing these social provisions. Ninety six elderly participants in the Netherlands (74% female, aged 70–81 years) were interviewed with a focus on their pet ownership history. Results suggested that human-animal relationships share features with primary human-human relationships. The most important social provision of pets was ‘attachment’ (emotional closeness), followed by ‘opportunity for nurturance’. Pets also provided ‘reassurance of worth’ (feelings of being useful and needed) and added to ‘social integration’ (making new friends and acquaintances) and a ‘feeling of being guided’ (feeling ‘guarded’ and emotionally supported). Additionally pets offered pleasure, life satisfaction, helped structure daily routines, reduced or prevented feelings of loneliness and provided opportunities for contact with nature and physical exercise.

Much of the research on companion animals as potential providers of social support has focused on elderly populations, vulnerable to loneliness and overall poorer health status (Hart, 2010). Pet ownership has been associated with: increased socialisation and decreased agitation in people with Alzheimer’s disease and also a reduction in stress of their carers (Baun & McCabe, 2003); increased social support for women with breast cancer, and for people following the death of a spouse (McNicholas & Collis, 2006); higher social community integration for people with serious mental illness (Zimalog & Krupa, 2009); the mediation of loneliness on general health in women over 65 (Krause-Parello, 2008); and greater adherence to a cardiac rehabilitation programme (Herrald, Tomaka, & Medina, 2002). The mere presence of a dog may also suffice to decrease mental distress in individuals who experience social exclusion (Aydin, et al., 2011). Returning to Erickson’s (1985) review of early human-animal bond studies, effects of pets on the lives of the elderly were described as “too promising to be overlooked” (p. 92). The most common reason given for pet ownership was companionship and/or combating loneliness, allied to significant live events: becoming retired, widowed, or separated from families. However, some 23 years later there had been little progress; ten focus groups with British dog owners (mean age of 60) identified key themes including: dogs as family members, therapists, and facilitators of a social network with other owners. Although the flow-on effect was that elderly dog owners were less dependent on health and social services, dog ownership was neither promoted nor facilitated:

Health advisors should embrace the concept of dog ownership as a means of encouraging physical activity and socialization ... If society is to reap the full value of these benefits, dog-friendly policies and attitudes that value and acknowledge the contribution that dogs can make to
peoples’ lives need to be translated into mainstream urban and rural community development services (Knight & Edwards, 2008, p. 452).

The notion that companion animal ownership can mitigate loneliness has been challenged (Gilbey, McNicholas, & Collis, 2007). Two measures, using the UCLA-Loneliness Scale, were taken six months apart, of people seeking to acquire a companion animal; by the second data collection point 35 of the 59 participants had acquired a new companion animal. There was no evidence that the acquisition of a companion animal ameliorated loneliness. The authors discussed reasons for this result, but appear to have overlooked the possibilities that less than six months living with a companion animal may be insufficient time to yield an effect or that the early weeks of living with a young animal may restrict a person’s social life. For example, people cannot take puppies into environments where they may encounter other dogs (and by extension where they may socialise with other dog-walkers) until they are fully vaccinated. Indeed, the length of time participants had owned their new pets by follow-up is not reported. There is also a suggestion that the role of pets in providing social support may differ by gender. Of a sample of men and women employed in a university faculty, female faculty members were more likely to keep pets for social support, and report that they helped them through hard times and alleviated periods of loneliness. In contrast, males offered more practical reasons for having a pet: keeping them active, serving a useful function, or that they were looking after the pet for others (Staats, Sears, & Pierfelice, 2006). This suggests that the relative importance of the roles dogs in the lives of people with movement disorders may differ between men and women.

Given the preponderance of studies focused on elderly populations, the findings of Netting et al. (2013) based on 75 dog walkers ranging in age from 18–73 (mean 43.5 years) are noteworthy. Measures of pet attachment (LAPS) and social support (Medical Outcomes Study (MOS) Social Support Survey) were embedded in a pilot study examining effects of dog-walking on self-reported mental health. Surprisingly, analysis revealed that younger adults were more attached to their dogs than older adults. The authors proposed Carstensen’s Socioemotional Selectivity Theory – that social preferences, in terms of valued friends/relatives, refine and shift across the lifespan – as an interpretive framework. An implication of this finding was that health professionals could usefully include companion animals in the assessment of an individual’s social networks in order to identify those who may benefit from referral. An implication for my work is, again, that human-canine relationships change over time and therefore longitudinal study designs are indicated.

I conclude this section with the highly salient work of Brooks et al. (2013); a mixed methods study, comprising 300 people with chronic conditions – diabetes and/or heart disease – which explored the contribution that companion animals make to ‘the work’ associated with the management of chronic conditions in the context of people’s personal social networks. The concept of ‘work’ was informed by Corbin and Strauss (1985) and broadly defined as: emotional (providing comfort); biographical (related to retaining control and giving meaning to life); and practical (assisting with everyday life – housekeeping, exercise and personal care). These three lines of work were derived from Corbin and Strauss’ (1985) study of 30 chronically ill people and their spouses managing long-term conditions at home. Further, in lieu of talking about illness per se, Corbin and Strauss embraced the temporal concept of an ‘illness trajectory’ which takes into consideration the course of the illness, all the related work and its impact on relationships that combine to affect the management of the course of the illness, and the outcome of the
individual concerned. Pets “have unique qualities and are not simply substitutes for human relationships in long-term condition management” (Brooks et al., p. 1). Pets (53% of participants had a dog) contributed mostly to managing emotions (they do not nag; they are soothing, relaxing and calming) and enhance a sense of identity. To a lesser extent they also assisted with everyday life (dogs offer a reason to exercise and afford security/protection). Pets provided constant, reliable and unconditional support, unlike some human-human relationships which come with a perceived expectation of reciprocity. And, again, dogs in particular demonstrated their potential to increase social capital: “pets seem to foster an affinity with developing and sustaining a sense of familiarity and embeddedness within a locality and accessing people, places and resources” (p.15). While not employing the words QOL per se, Brooks et al. neatly draw together the notion of companion animals as an integral part of personal social support networks, actively assisting with the diversity of ‘work’ inherent in living with chronic conditions. I suggest it is in the realm of practical work that service dogs might be expected to contribute more emphatically than companion dogs to everyday life, and this practical assistance may, in turn, boost biographical work in terms of retaining a greater sense of control. Further, the concept of an illness trajectory acknowledges that living with a chronic condition – such as a movement disorder – is long-term, dynamic and unpredictable with many factors contributing to an individual’s perceived QOL at a given point in time.

2.9 Gaps in the service dog literature

Authors in the nascent field of service dog research have flagged a number of areas warranting further investigation. The main gap in this literature that my study seeks to address is how companion dogs and service dogs compare as QOL interventions for people with movement disorders (Collins et al., 2006; Winkle et al., 2012). Several authors have endorsed qualitative research as a way forward to enrich understanding of the service dog phenomenon. Modlin (2001) called for qualitative studies to “provide clearer descriptions of living with a service dog, especially in the areas of quality of life and functional independence” (p. 218). The most recent systematic review of the service dog literature concluded: “Anecdotally, the literature strongly supports the benefits of service dogs, but the research evidence needs to show how service dogs can make a difference in the lives of people with disabilities” (Winkle et al, 2012, p. 65). Mindful that this review purposively excluded qualitative studies the authors proceeded to recommend more rigorous research, including qualitative studies exploring “meaningfulness of service dog use” and the contribution of service dogs to “health maintenance” (p. 65). The literature also indicates that a prospective/longitudinal approach with multiple points of data collection may best assess the impact of service dog partnerships. An earlier review of benefits of assistance dogs (Sachs-Ericsson, Hansen, & Fitzgerald, 2002) found preliminary evidence that these dogs have a positive impact on QOL, but cautioned that this “has relied predominantly on retrospective and cross-sectional studies, subjective ratings, and one-time interviews with individuals after they have received their dogs” (p. 270). Others have agreed that longitudinal studies hold the most promise for detecting any true benefits from service dog partnerships (Stern & Chur-Hansen, 2013; Winkle et al., 2012). A longitudinal approach equally affords insight to the experience of living with chronic conditions; in order to assess the relative effects of companion dogs and service dogs on QOL, it is also necessary to understand the issues inherent in living with movement disorders over time.
My reading of the companion animal and service dog literature has also identified details, sometimes overlooked, that contribute to rigour of research endeavours in this field. For example, it is important to profile the canine as well as human research participants, and their relationships: characteristics of dogs (breed, age, sex); length of relationships with dogs; and nature of these relationships (responsibility for care and time spent with dogs). Details pertaining to other companion animals living in the household and participants' personal histories of past companion animals may also be relevant. It is also essential that service dog organisations responsible for training dogs in the study are adequately described. Lack of these details makes it impossible for other researchers to either replicate or compare studies.

This chapter has provided an overview of the human-animal interaction literature with a focus on the roles of companion dogs and service dogs and relevant research in New Zealand. Studies have identified the physiological and psychosocial impacts of companion dogs and service dogs on human health and well-being, and mechanisms by which benefits may be conferred. I conclude that a QOL focus, taking into consideration physiological, psychological, social and environmental determinants of health, is the most appropriate platform from which to compare the impact of companion dogs and service dogs in the lives of people with movement disorders. I return to my research question: How feasible is it to compare effects of companion dogs and service dogs on QOL in people living with movement disorders? To answer this question I proposed a prospective longitudinal (12 month) primarily qualitative case study of two groups of people with movement disorders: one group partnered with, or waiting for, Mobility Dogs; and a second group living with companion dogs, to be retrospectively assessed for feasibility. (Methodology and Methods are detailed in Chapter Four).

In the following chapter I offer a theoretical framework for my research. I discuss the philosophical assumptions that I bring to my study, and add depth to a conceptual model of QOL. As noted in Section 1.3.5, a study of this nature cannot ignore the disability literature. Therefore, I also provide an overview of the development of disability theory. This prefaces a discussion of Disjuncture Theory, which conceptualises disability as “an ill-fit between embodied experience and diverse environments” (DePoy & Gilson, 2011, p.487). I suggest this is also a potentially useful framework from which to examine the impact of companion dogs and service dogs from a QOL perspective.
“Data has little value unless it is situated in a context of ideas” (Adams & Buetow, 2014, p. 96).

3.1 Philosophical assumptions

Situated in the fields of health and disability, I am confronted with debates based on dualisms: realist versus anti-realist philosophies; medical versus social models of health and disability; quantitative versus qualitative methodologies. In Chapter Two – addressing the debate on whether pet ownership benefits human health – I spoke of the uneasy relationship between different types of research by very different scientists – medical and social – and the difficulty of reconciling their work. Here I also refer to the perceived tension between two research methodologies – quantitative and qualitative – inherent in fundamentally different philosophical traditions. The medical scientist with a post-positivist worldview recognises a singular objective reality which research can approximate. Interaction between the researcher and participants is minimal and researchers can control the influence of their own values. In contrast, the anti-realist scientist assumes multiple subjective realities co-constructed through lived experiences and interactions with others in a manner that makes values explicit (Creswell & Plano Clark, 2007). I acknowledge the equally valuable, and often complementary, contributions of quantitative and qualitative methodologies. Therefore my approach is pragmatic, rather than philosophically purist. Having determined that the studies of both human-animal interaction and human health and well-being are complex, in turning to theory, I hope to identify some of the issues that may arise in a longitudinal case study incorporating both QOL and disability (as the result of movement disorders) and thereby enhance my ability to offer insights into my findings.

3.1.1 Pragmatism

Pragmatism as a philosophical position is goal-oriented and focuses foremost on the practical issue of “what works” (Creswell & Plano Clark, 2007, p. 24). It assumes that the value of ideas is their ability to help people to do things that are useful for realising some purposes; that is, the ideas enable people instrumentally to realise goals and achieve progress toward problem solution in a manner that answers objections and hence wins a game of justification. This role replaces a need to demonstrate any correspondence of the ideas with what is real or true. For pragmatists therefore, ideas are tools that help people to get what they want, rather than mirrors that reflect the way that things are.

Murphy (1990) provided a comprehensive treatment of the development of pragmatic thought from the classical roots of Peirce, James and Dewey to the later contributions of Quine, Rorty, Davidson and Putnam. More recent writers include R. B. Johnson and Onwuegbuzie (2004) and Tashakkori and Teddlie (2003, 2010) who have argued for the so-called third methodological community of Mixed Methods Research (MMR). Incorporating quantitative and qualitative methodologies, this research is compatible with the tenets of pragmatism. In this context, R. B. Johnson and Onwuegbuzie (2004) provided a helpful overview in distilling a number of characteristics of classical pragmatism. Pragmatism:
1. rejects traditional philosophical dualisms (for example, positivist versus constructivist) in favour of how well they work in solving problems;
2. views knowledge as both constructed and based on the reality of the world we experience and live in: the physical/natural world and the social/psychological world that includes language, culture, human institutions and subjective thoughts;
3. views theories as instrumental – their truth is based on how well they currently work;
4. endorses eclecticism and pluralism – observation, experience and experiments are all useful ways to gain an understanding of people and the world;
5. views current truth, meaning, and knowledge as tentative and as changing over time; the present is always a new starting point;
6. takes an explicitly value-oriented approach to research derived from cultural values;
7. offers the "pragmatic method": affords researchers the ability to maximise the strengths and minimise the weaknesses of both qualitative and quantitative methodologies (p. 18).

Acceptance of pragmatism as an overarching philosophical position for MMR has been contested by quantitative and qualitative purists. In the quest for academic consensus, Teddlie and Tashakkori (2012) called for a more nuanced discussion of pragmatism, posing questions such as: “Is pragmatism a philosophical system or a set of philosophical tools that can be used to address problems? Is there a specific type of pragmatism that is more relevant to MMR?” (p. 784). It is beyond the scope of this thesis to engage in this debate, other than to say that in healthcare it has become increasingly clear that a wider perspective is necessary to make sense of the everyday experience of living with illness (Conrad & Barker, 2010; P. Thomas, 2006; H. J. Wilson, 2000). I recognise the tensions of conflicting assumptions that underpin different worldviews but value highly the utility of a unified approach of doing what works; it is pragmatic sometimes to be subjectivist and take a qualitative approach. By way of illustration, Alderson (1998) addressed the pain paradox: there is no objective measure of pain and what is painful to one person, may not be to another. Pain is “an intense personal sensation, it provides no direct, reliable evidence for the observer ... to understand pain better, clinicians have also to think partly in non-positivist ways: to ... see pain as more than physical, involving the mind as well as the body” (p. 1008). In healthcare this recognised a fundamental shift from a biomedical model to a QOL model; an individual’s health status is not simply defined as the presence or absence of disease, but also depends on functioning and overall well-being. It required healthcare providers to consider new ways of measuring patient outcomes, and to consider alternative, and more tailored interventions in the provision of quality patient care. One such tailored intervention for people with movement disorders may be a service dog.

3.2 Conceptual frameworks

Consideration of relevant conceptual frameworks helps to anchor a research study. Conceptual frameworks keep the research question in focus and the scope of a case study manageable (Miles & Huberman, 1994; Yin, 1999). Earlier, I discussed key theoretical frameworks proposed to explain the mechanisms underlying the human-animal bond and how animals may benefit human health and well-being. These mechanisms included: the oxytocin system hypothesis (2.3), the biophilia hypothesis (2.8.1), attachment theory (2.8.2) and social support theories (2.8.3). Although I provided definitions of QOL (1.3.4) and disability (1.3.5), a deeper understanding of the development of conceptual models of QOL and disability theories might aid understanding of my participants and data. It is important to
remember that models may appear simplistic, especially when represented as two-dimensional diagrams (Sprangers et al. 2010). However, it is not my intention to view conceptual frameworks in isolation or as being static: Adams and Buetow (2014) made reference to the “dynamic and multilayered ways in which theory contributes to research enquiries” (p. 93); it is the nature of research that theories are repeatedly challenged and refined.

3.3 Conceptual models of QOL

My review of the literature (2.9) concluded that QOL is an appropriate conceptual framework to scaffold a study exploring effects of dogs on human health and well-being. In this section I present revised conceptual models of QOL (Ferrans et al., 2005; Sprangers et al., 2010) as frameworks to guide my comparison of effects of service dogs and companion dogs on QOL in people with movement disorders. First I introduce the original model conceived by I. B. Wilson and Cleary (1995). Its key purpose was to integrate the biomedical and social science models of health, while acknowledging that multiple factors (including economic, political, cultural and spiritual factors), often overlooked by health professionals, may affect an individual’s overall QOL. I then outline two subsequent revisions of the original model to illustrate developments in the conceptualisation of QOL informed by subsequent research and advances in scientific knowledge. My purpose here is to provide an enhanced understanding of QOL as a dynamic and continually evolving concept.

3.3.1 I. B. Wilson and Cleary (1995)

This original model conceptualised measures of health on a five-tiered continuum of increasing biological, social, and psychological complexity: from the cell to the individual to the individual as a member of society. The five levels were summarised thus:

1. **Biological and physiological factors**: centres on assessment of the function of cells, organs and organ systems;
2. **Symptoms**: shifts to assessment of the whole organism. The relationship between measureable biological and physiological factors and reported symptoms is complex, and inconsistent from one person to another;
3. **Functioning**: focuses on assessment of the ability to perform defined tasks. Functioning is commonly measured across four domains: physical, social, role and psychological. Symptoms and biological and physiological factors are correlated with functioning, but they do not explain all of the variance;
4. **General health perceptions**: a subjective rating which integrates all of the above concepts, plus others such as mental health;
5. **Overall QOL**: a subjective assessment of well-being which is often interrogated by asking how happy and/or satisfied individuals are with their life as a whole.

In addition to these five levels, the roles of individual preferences and values, and emotional or psychological factors, play a significant role especially when it comes to general health perceptions and overall QOL. These factors can interact with variables at every tier of the model and these relationships can be bidirectional. For example:

The effect of depression on general health perceptions and overall quality of life can be profound. Similar arguments can be made for other psychological symptoms such as anxiety,
fear, and hopelessness. Reasoning in the opposite direction worsening physical symptoms, functional impairments and low overall quality of life can all cause depression, anxiety and fear. (p. 63)

The model has been applied to people with chronic conditions, including heart disease (Lee, Yu, Woo, & Thompson, 2005), Parkinson’s disease (Chrischilles, Rubenstein, Voelker, Wallace, & Rodnitzy, 2005) and HIV/AIDS (Sousa & Kwok, 2006; Vidrine, Amick, Gritz, & Arduino, 2005).

3.3.2 Ferrans et al. (2005) revision

Although characteristics of individuals and the environment were included in the model above, the authors did not explain what these characteristics mean which created ambiguity in working with the model in clinical practice and healthcare research. Ferrans et al. (2005) drew on the work of Eyler et al. (2002), based on an ecological model of health promotion. Correlates of physical activity among women from diverse racial and ethnic groups were identified and characteristics of individuals were categorised as biological, demographic, developmental and psychological; and characteristics of the environment as either social or physical (Eyler et al., 2002). Each of these characteristics may influence the incidence of disease and/or health outcomes, and/or the efficacy of interventions to change or modify health-related behaviours. When it comes to such interventions, biological and demographic factors and developmental status help to define target groups for the intervention and determine how best to deliver the intervention: “For example, women with young children and little time for structured exercise programs might be receptive to learning ways to enhance their daily activities at home and work to reap the cardiovascular benefits” (p. 337). Compared to biological, demographic and developmental factors, psychological factors were described as more dynamic and responsive to interventions. These individual characteristics were summarised as follows:

- **Biological** for example: genetic links to disease, body mass index;
- **Demographic** for example: sex, age, marital status, ethnicity;
- **Developmental** for example (life-cycle stage): women with young children;
- **Psychological** for example: cognitive appraisal (knowledge beliefs and attitudes toward an illness, treatment or behaviour), affective response (anxiety, fear, sadness, joy), and motivation: both intrinsic (inherent enjoyment or satisfaction) and extrinsic (externally rewarded);

and of environmental characteristics:

- **Social** for example: influence of family, friends and healthcare providers;
- **Physical** for example: features of home, neighbourhood, and workplace (Ferrans et al., 2005, pp. 337–338).

Ferrans et al. (2005) revised the model (Figure 3.1). A separate box labelled nonmedical factors was deleted because these factors can be categorised as characteristics of either the individual or environment. They also removed labels from arrows to facilitate characterisation of the relationships. For example, specific labelling of an arrow from characteristics of the environment to symptom status with “psychological supports” (I. B. Wilson & Cleary, 1995, p. 60) implied that “social and economic supports”, linked to functional status, do not influence symptoms.
Figure 3.1. Revised health-related QOL model of I. B. Wilson and Cleary (Ferrans et al., 2005, p. 338).

### 3.3.3 Sprangers et al. (2010) revision

Advances in the field of genetics led Sprangers et al. (2010) to extend the I. B. Wilson and Cleary model to make explicit the genetic basis of QOL (*Figure 3.2*): “there is mounting evidence that genes impact the experience of symptoms, perceptions of health, mood, and QOL in general” (p. 1398). Five refinements to the model were proposed: molecular and genetic factors were added to both the biological and physiological variables and individual characteristics; a bidirectional relationship was introduced between individual characteristics and both genetic and biological factors (recognising the impact of minds on bodies, as evidenced in the study of pain); interactions between the environment and genetic and biological factors were added (supporting evidence that gene expression can be affected by the environment); and arrows were thickened from individual characteristics to symptom status, functional status, general health perceptions and overall QOL, recognising that “personality, illness perceptions, expectations, values, and coping strategies, can exert larger effects than biological and physiological variables” (p. 1399). The authors acknowledged that their symmetrical graphical representation is simplistic: in reality, “multiple determinants interact and operate in nested genetic, biological, behavioural, and environmental contexts that change as a person develops” (p.1399). These temporal relationships (iterative interactions over time) are not evident in the diagram:
I tender this conceptual model of QOL, coupled with the Ferrans et al. (2005) explication of characteristics of the individual and environment, as a framework from which to consider the comparative effects of companion dogs and Mobility Dogs on QOL in people with movement disorders. In reality the notion of QOL is more ‘messy’ than these neatly drawn figures depict. At a glance – in the absence of the full texts accompanying these models – it is perhaps easy to lose sight of: individuals embedded in a wider society; the economic, political, cultural and spiritual factors which also impact self-perceived overall QOL; and the iterative and temporal nature of these models. I elaborate further on the more fluid, shifting balance of components of QOL in the context of the disability paradox (3.5). But first I consider theoretical conceptualisations of disability which may influence how people with movement disorders perceive dogs to impact their QOL and how they respond to the notion of a Mobility Dog (identified by branding as a ‘special’ dog) as an intervention.

### 3.4 Disability theories

“Looking through a lexical lens, the term disability has only recently become a signifier for the grand category of atypical bodies” (DePoy & Gilson, 2011, p. 10).

The participants in my study all live with movement disorders, and may also be described as ‘people living with physical disability’ or ‘physically disabled people’ (1.3.5.1). To better understand and interpret my participants’ experiences, I provide an overview of the emergence and development of disability theories, of which the ‘medical model’ and ‘social model’ are the two main orientations. They are often described as oppositional, which mirrors the tension between their respective overarching positivist and constructivist worldviews. Since the turn of the twenty-first century, there has been a trend to reconcile these two conceptualisations of disability into single frameworks, in the same way that the concept of QOL integrates multiple domains to assess human health and well-being. The most contentious issues have been the uneasy relationship between health and disability and the role of individual impairment in determining disability in the social model. Approaches to disability and how it should be defined have been debated over the last 40 years. Oliver (1996, 2009), Shakespeare and Watson (2001) and
Shakespeare (2006) offer a flavour of some of the lively academic discourse in this field. My intent is generally to understand how disability may be variously defined and experienced by the participants in my study.

3.4.1 Medical model

The medical model (also referred to as the individual model) of disability is grounded in the notion of a “body-gone-wrong” (Michalko, 2002, p. 120), a personal tragedy. Here, disability reduces to a medical condition and casts the person as sick and dependent. Implicit in this model is a deficit or impairment to be minimised, if not cured. It is the role of medical and health professionals to provide care and remedial treatments to produce a body that looks and acts as close to ‘normal’ as possible (Dell Orto & Power, 2007; Watson, Roulstone, & Thomas, 2012). Disability as a normative concept reflects perceptions of what humans ought to be. The strong, exquisitely proportioned body of Da Vinci’s Vitruvian Man (1490) set a “gold standard” for human embodiment (DePoy & Gilson, 2011), thereby locating disability in weak and/or imperfectly proportioned bodies. Statistician Adolphe Quetelet (1796–1847) introduced the concept of the ‘average man’, represented by a normal – bell-shaped – curve:

This abstract human was the average of all human attributes in a given country ... a physically average and a morally average construct ... the body of the man in the middle becomes the exemplar of the middle way of life ... With such thinking, the average then becomes paradoxically a kind of ideal (L. J. Davis, 1997, pp. 4–5).

People could be effectively segmented into categories of normal and abnormal on a variety of physical, psychological and social characteristics. Concerned that the middling of perceived desirable human traits would ultimately produce mediocrity in the population, Galton subdivided the normal curve into quartiles. For traits such as intelligence, tallness and strength the ‘ideal man’ (superior to the ‘average man’) was positioned in the uppermost quartile (L. J. Davis, 1997). People with characteristics at the lower – abnormal – tail end of the curve attracted the gaze of medical science. This catalysed the removal of abnormal people from mainstream economic and social life. Institutionalised populations offered easy targets for scientific scrutiny and under the guidance of medical expertise a disability industry was born; impairments could be managed, if not normalised or cured, with the aid of pharmaceuticals, therapeutic treatments – often of the ‘special’ kind – medical equipment and assistive technology. This helped to cement a perception of people with impairments as inadequate, and assured their dependence on the state and professionals with specialised knowledge (DePoy & Gilson, 2011, Watson et al., 2012). In reaction to the medical conceptualisation of disability as an individual problem to be overcome, the social model switched the focus to the way physical, social and cultural environments restrict the lives of disabled people.

3.4.2 Social model

The social model is sometimes referred to as the ‘British model’ courtesy of a core group of disabled academics and activists – including Finkelstein and Oliver – in the United Kingdom who were intent on the emancipation of disability. Finkelstein was a founding member of the Union of the Physically Impaired Against Segregation (UPIAS) established in 1974. The UPIAS conceptualised disability as a “complex form of social oppression and discrimination against people with impairments, similar to that encountered by women, ethnic minorities, lesbians and gay men” (Watson et al. 2012, p. 13). In the words of the UPIAS (1976) disability is,
something imposed on top of our impairments by the way we are unnecessarily isolated and excluded from society. Disabled people are therefore an oppressed group. It follows from this analysis that having low incomes, for example, is only one aspect of our oppression. It is a consequence of our isolation and segregation in every area of social life, such as education, work, mobility, housing etc. (p. 4).

Inhered in civil rights and social justice, the social model eschewed marginalisation and exclusion of disabled people, institutionalised residential care, and the control of disability by medical professionals. With the focus on identifying the disabling environments (social, cultural and physical barriers to inclusion) the model offered a practical framework to shift societal perceptions of, and responses to, disability; the aim was to change attitudes, institutions and policies. The United Nations (UN) placed disability on the human rights agenda with its introduction in 1975 of the Declaration of Rights of Disabled Persons. In 1981 disabled activists formed Disabled Peoples International. Its slogan ‘Nothing About Us Without Us’ prefaced Oliver’s (1992) argument for disability research to embrace an emancipatory paradigm: disabled researchers and participants actively engaged in research to influence policy and improve the lives of disabled people (Watson et al., 2012).

3.4.3 Attempts to reconcile the medical and social models

“The globalisation of disability studies has been marked by a proliferation of perspectives ... to make a new epistemological soup” (Titchkosky & Michalko, 2012, p. 310).

The past ten years have witnessed increasing efforts to integrate the medical and social models of disability into more holistic frameworks that consider the whole person functioning and interacting across different environments. While the social model succeeded in highlighting disadvantage experienced by disabled people and produced evidence of environmental barriers to inclusion, some claimed its emphasis on emancipatory research forestalled understanding of what it is like to live as a disabled person (Shakespeare, 2006; Shakespeare & Watson, 2010; Tate & Pledger, 2007, Titchkosky & Michalko, 2012; Watson et al., 2012). In his doctoral thesis, Paraplegic bodes: Self and society, Sullivan (1996) stated that the omission of the body and impairment at an individual level denies a complete understanding of disability:

For many people with disability, their impairment has medical implications which compels them to adopt certain regimes of care without which the organism will deteriorate and die. In turn, these regimes (probably) require them to organize their lives around care of their bodies. From this perspective, disability is not only the consequence of attitudes and the built environment but also the subjective and practical experience of living an impaired body (pp. 4–5).

This brings disability, together with health, into a QOL framework: “Today, an increasing focus in the delivery of rehabilitation services is on uniquely improving the quality of life of persons with illness and/or disabilities” (Dell Orto & Power, 2007, p. xxiii). At an individual level the emphasis shifted from passive reception of care to one of personal experience of individual agency – enablement, self-determination and empowerment: “The control of life is not simply given to others but embraced by oneself for better or worse” (Marinelli, 2007, p. xxi). Here, equal emphasis is placed on different interrelated dimensions of the disability experience (physical, biological, psychological, psychosocial and emotional, socio-economic, cultural and normative), and it is acknowledged that their relative importance may differ from one person to another (Shakespeare & Watson, 2010):
The disability experience is a unique, individualised experience involving multiple factors, including individual characteristics and behaviours, culture, social stigmas, attitudes, and other factors that have the potential to enable or disable (Tate & Pledger, 2007, p. 25).

This wider lens affords more tailored responses to increasing equality and well-being: it recognises whether people will benefit most from medical responses (for example, surgery) or social responses (for example, modifications to the built environment), or a combination of both. Looking at the notion of a ‘canine prescription’ it is therefore interesting to ask: how do companion dogs and Mobility Dogs perform as a personalised intervention for people with movement disorders? Do they increase equality and/or well-being? How does the addition of a dog affect how people fit and interact with the built environment?

3.4.4 Disjuncture theory

Disjuncture theory seeks to reconcile the medical and social models (DePoy & Gilson, 2011) and offers a useful perspective for this project. As discussed in Chapter Two, benefits and drawbacks are associated with living with dogs, in much the same way as benefits and drawbacks are associated with pharmacological and surgical interventions. In Studying Disability: Multiple Theories and Responses, the authors reframed disability as a dynamic grand category within the broader context of human diversity. From their perspective historical and theoretical conceptualisations of disability have left the body “in fragments” (p. 34). To reconstitute the body and integrate the medical and social models, they embraced an overarching framework of explanatory legitimacy theory (ELT). It seeks to enable pragmatic responses with “our ultimate ideological aim of creating a world in which all bodies not only fit but also are welcomed with comfort and tolerance” (p. viii). Drawing upon a plurality of disciplines, it identified three contextual factors – economic productivity, medicalisation and diversity – as instrumental in shaping definitions of and responses to disability over the past century. ELT asserts that disability is ultimately determined by the set of beliefs, value judgments and expectations that people bring to explanations of observed and reported atypical human phenomena: “disability is a judgment about authenticity and worth” (Depoy & Gilson, 2011, p. 7). They cite the example of two people walking with a clumsy gait and unable to navigate stairs in a public space: responses to who is more worthy or more authentically disabled differ with knowing that one was born with cerebral palsy and the other is an alcoholic. Thus, who is (not) a member of the legitimate disability community depends on context: who is judging whom, when, why and where these judgments are made.

DePoy and Gilson’s conceptualisation of disability as disjuncture between bodies and environments stemmed from discussions with students about the inaccessibility of environments designed to accommodate the physical characteristics of the ‘normal’ man. Disjuncture theory holds that neither embodied nor environmental elements are solely responsible for disability: rather, it is the relationship – goodness-of-fit – between them. Disjuncture theory goes beyond the physical (organic) body in physical space to encompass multiple elements of embodied human experience including social, economic, emotional, spiritual and, most recently, virtual dimensions. From this perspective, disability is conceived on a continuum of disjuncture or “ill fit” (p. 211) between bodies and environments. I contend that disjuncture theory also offers a potentially insightful way to compare the impact of companion dogs and service dogs as QOL interventions for people with movement disorders. Based on the premise that increased juncture between bodies and environments is reflected in enhanced QOL, how and to what
extent does each category of dog facilitate juncture or, conversely, contribute to disjuncture across different environments?

My treatment of disability theories has focused on the broad picture internationally. It is important to also understand how disability is conceived in New Zealand as this may provide further insight to the experiences of my research participants.

3.4.5 Disability theory and New Zealand

“Economic thinkers in the mid nineteenth century regarded people with disability as the Darwinian losers in the economic survival of the fittest. Vestiges of this attitude still remain ... It seems unfair that in an affluent society you are still designated a loser by the lottery of birth” (Lyons, New Zealand Herald, 2013, May 23).

Over the past century changing attitudes to, and conceptualisations of, disability internationally have been reflected in New Zealand’s approach to disability and the evolution of the New Zealand Disability Strategy (NZDS, 2001). Disability in New Zealand is variously defined (1.3.5), largely dependent on who is making the definition and for what purpose. Sullivan (1996) described impaired bodies in conflict with a prevailing national culture of,

a fit, healthy rugged physicality born as much of New Zealand’s physical environment as its social environment ... Underpinning the ideal of the physical has been the Plunket ideology which promoted the breeding of fit, healthy, and intelligent children as the moral duty of all New Zealand parents since 1907 (p. 85).

Taking the NZDS as the key national document, disability is taken to be a matter of society not the individual: “disability is in society, not me” (Minister of Disability Issues, 2001, p. 3). The NZDS was the result of extensive consultation with disabled people and is a partnership between the government and the disability sector. The mandate was to produce a long-term plan to steer New Zealand from a disabling society to an inclusive one, with the vision of: “a society that highly values our lives and continually enhances our full participation” (p. ix). This vision intersects with that of the MADT insofar as one of the key goals of a Mobility Dog partnership is to enhance participation in New Zealand communities (MADT, 2013). The NZDS identified attitudinal barriers (experienced by disabled people as stigma, prejudice and discrimination) as the major obstacle to inclusion, followed by physical barriers. Despite robust national standards for accessibility, independent access to buildings, facilities and transport was, in practice, poor. The strategy set out 15 broad objectives for the government to realise on the path to a non-disabling society.

While the NZDS has raised national consciousness of disability, its application is limited to provision of support services under the auspices of state control (Sullivan, 2009). Building on the development of the NZDS, New Zealand took a leading role in negotiations with the UN Convention on Rights of Persons with Disabilities, culminating in ratification of the Convention in 2008 (Human Rights Commission, 2014). New Zealand has made a commitment to ensure disabled people experience fulfilment of human rights and opportunities on the same basis as non-disabled people. Implementation of the NZDS and Convention is challenging. In his address to the School of Population Health, University of Auckland (2013, August 28), Disability Rights Commissioner Paul Gibson acknowledged that implementation of the NZDS has been slow. Gibson, appointed to this role in 2011, is tasked with formal responsibility for managing disability issues and more specifically with overseeing the implementation of the Convention.
To facilitate progress he called for more direct voices from people living with disability (“more stories need to be told”) to best inform a consumer-driven model of service provision. Similarly, New Zealand’s first annual report to the Convention stated:

Despite the New Zealand Disability Strategy and the recommendations of the Social Services Select Committee Inquiry into the quality of care for people with disabilities (48th Parliament, 2008) disabled people continue to experience significant barriers to living more independently and exercising choice in their lives (Human Rights Commission, Ombudsman & The New Zealand Convention Coalition, 2012, p. 9).

In the wake of the NZDS and the Convention, the Attitude Awards, Be.Accessible and ‘Enabling Good Lives’ initiatives have emerged. The Attitude Awards, launched in 2008, are an annual recognition of achievement in the disability sector “intended to be a significant driver of inclusion in New Zealand society and to support the New Zealand Government’s objectives of a fully inclusive society” (The Attitude Trust, 2013). Be.Accessible is a national social change initiative with the aim: “to create a truly accessible country for us all” (Be.Accessible, n.d.). It focuses on eliminating attitudinal and physical barriers to inclusion of disabled people in our communities; it challenges traditional thinking by shifting focus from disability to accessibility, from limitation to possibility and innovation. Be.Accessible maintains that true accessibility requires a holistic approach embracing three pillars of life: physical (to create an accessible physical and information environment); social (to inspire people to think differently about access); and personal (to build individual and collective leadership capacity to create an environment for transformative conversations and engagement). The intent of ‘Enabling Good Lives’, launched by the Office of Disability Issues (2011), has a more individual focus: to repackage government support to enable disabled people to do ‘everyday things in everyday places’, rather than altogether in ‘special’ places at prescribed times. The emphasis of Enabling Good Lives is on self-determination and the provision of simple, flexible responses to increased community participation, tailored to individual interests. As noted, the MADT shares the goal of increased community participation and I propose that dogs potentially offer some people with movement disorders an opportunity to do ‘everyday things in everyday places’.

It is important for my study to consider ‘everyday places’ and whether different environments impose restrictions on people with dogs. From a cultural perspective, it is always possible that indigenous populations embrace a different view. Indeed, Maori conceptualise disability differently from non-Maori. Traditionally, Maori see themselves less as individuals than part of an extended group: a whanau (family), hapu (sub-tribe) and/or iwi (tribe). Knowledge of whakapapa (genealogy) and relationships between whanau, hapu and iwi are crucial to Maori identity: a sense of belonging is built through shared experiences and working together (Kingi & Bray, 2000). A Maori worldview of health and well-being therefore is holistic: “Well-being is not simply about good health but involves the interaction of four dimensions: taha wairua (spiritual side), taha hinengro (thoughts and feelings), taha tinana (the physical side) and taha whanau (family)” (Bevan-Brown, 2012, p. 9). Disability is located primarily in the effects of colonisation, rather than mere pathology or impairment; it is underpinned by loss of land, language and culture, and disintegration of a traditional kin-based society (Kingi & Bray, 2000). Because a core value of Maori is the overall well-being of the whanau, inclusion of disabled people is important because exclusion of family members is detrimental to the collective well-being (Bevan-Brown, 2012). Of particular relevance to this thesis, the concept of assistance dogs does not sit comfortably with all Maori;
this feeling is based on traditional views of kuri (early Polynesian dogs) as sources of food and material resources (2.1.1). Visually impaired Maori accompanied by guide dogs continue to be denied access onto some marae (cultural meeting places). Late in 2013, the Human Rights Commission sought to adjust this protocol. Debate continues and universal acceptance of assistance dogs onto marae appears unlikely in the foreseeable future (Radio New Zealand, 2013, November 18). Here, Mobility Dogs could be described as a cultural barrier to full inclusion, and hence unlikely to be viewed as a QOL intervention for some Maori.

3.5 The disability paradox

Before leaving theoretical frameworks for QOL and disability, I draw attention to the so-called disability paradox as it has implications for my longitudinal case study with a QOL focus including a ‘before and after’ standardised measure of QOL (4.2.7) at the outset and conclusion of the study. Without knowledge and understanding of events in the lives of participants between measures, it may be difficult to interpret QOL scores and determine the efficacy of an intervention on scores alone (Schwartz, Andresen, Nosek, & Krahn, 2007).

The disability paradox raises the possibility that participants in my study may experience deterioration in their physical condition over the course of the year-long study period, which is not reflected in their QOL scores. Albrecht and Devlieger (1999) examined this paradox in response to the question: “Why do many people with serious and persistent disabilities report that they experience a good or excellent quality of life when to most external observers these people seem to live an undesirable daily existence?” (p. 977). Tapping into the experiences of 153 people with disabilities, they suggested that QOL is all about relative balance and people change their expectations and aspirations as personal circumstances change. Moreover, one dimension of QOL may compensate for the loss or disruption of another. A higher QOL was evident when the disparity between individual capacity and environmental restraints was mitigated by: social support (the integration of the person into the family, community and wider society); access to assistive devices; and the reduction of barriers. This could also be interpreted as, a higher QOL reflects increased juncture (better fit) between disabled bodies and environments (Depoy & Gilson, 2011). Other factors contributing to a high QOL fell under the umbrella of ‘doing well with disability’, and this was manifest in people who: gain an understanding of their condition; take control and introduce order and predictability in their lives; learn what is possible and set goals; continually seek knowledge and educate others; embrace a value set that helps make sense of their disability; conserve energy and search for resources to manage their lives better; engage in social networks and remain connected; and give and receive from others in reciprocal relationships. A good QOL therefore hinges on “finding a balance between body, mind and spirit in the self and on establishing and maintaining a harmonious set of relationships within the person’s social context and external environment” (p. 977). Conversely, poor or fair QOL represents an imbalance. This is often due to constant or unpredictable pain and/or debilitating fatigue, which results in disorganisation across environments, and a lack of knowledge, resources and social contacts. It is therefore difficult for these people to gain a sense of control over their situation and feel motivated. The authors concluded that inadequate attention is given to enabling persons with disabilities to achieve a balance between the component aspects of self (mental, spiritual, emotional and social) and their social worlds. Arising from this study, one area flagged for future research was an exploration of interventions designed to support, enable and empower individuals. This
offers a further perspective from which to consider the relative effects of companion dogs and Mobility Dogs as interventions to enhance and maintain QOL: how and to what extent does each category of dog serve to support, enable and empower people with movement disorders? Do dogs help these people to: ‘do well’ with disability; find a balance and maintain a harmonious set of relationships across environments; provide social support; reduce barriers to inclusion; facilitate control and introduce order and predictability; conserve energy; offer opportunities to engage in social networks and remain connected; engage in reciprocal relationships; seek knowledge and educate others; learn what is possible and set goals?.

In summary, this examination of conceptual frameworks of QOL and disability theories enhances understanding of perspectives that research participants (living with movement disorders and dogs in New Zealand) may bring to my study. This is not to say these frameworks dictated what data I collected or selected for analysis; rather they provided an anchor to help keep my research question grounded, a lens to keep it in focus and later inform my interpretation of data (Miles & Huberman, 1994; Yin, 1999). From my reading of the literature (Chapter Two), and drawing on my personal experience of living with a dog, I recognise both benefits and drawbacks in the notion of a ‘canine prescription’ to enhance QOL in people with movement disorders. In making a comparison between companion dogs and Mobility Dogs, disjuncture theory (DePoy & Gilson, 2011) appears a potentially useful way to conceptualise how each category of dog may facilitate goodness-of-fit (juncture) between bodies and environments as it offers a perspective from which to consider aspects of dogs that may contribute to ill-fit (disjuncture). Further, the above discussion suggests that while participants in my study are likely to share themes of living with movement disorders and dogs, with respect to QOL I may encounter more individualised experiences. Clearly, QOL scores may differ from my objective assessment of an individual’s QOL, and any interpretation of shifts in QOL scores must be approached carefully. For instance: if QOL scores of people newly partnered with Mobility Dogs at the study outset change over the course of a year, it will be uncertain whether the change can be attributed to the canine intervention or to other events in individuals’ lives. This risk indicates that qualitative methods alongside a quantitative measure of QOL will afford me an improved understanding of how companion dogs and Mobility Dogs compare as a QOL intervention.
“Being pragmatic allows one to eschew methodological orthodoxy in favour of methodological appropriateness as the primary criterion for judging methodological quality, recognizing that different methods are appropriate for different situations” (Patton, 2002, p. 72).

4.1 Methodology

To address my research aims I developed and implemented a predominantly qualitative, case-oriented study design to assess the feasibility of comparing the effectiveness of companion dogs and Mobility Dogs. The methodology for this study refers to the rules or principles defining how my pragmatic philosophical framework (3.1) has guided the direction of my collection and analysis of data. As a component of my methodology, my research design links this framework to specific methods or techniques of data collection and analysis (Creswell & Plano Clark, 2007). This design emphasises the methods appropriate to answering my research question. To explore areas in healthcare not amenable to quantitative inquiry, qualitative research methods have come to the fore by,

- providing rich descriptions of complex phenomena; tracking unique or unexpected events;
- illuminating the experience and interpretation of events by actors with widely differing stakes and roles; giving voice to those whose views are rarely heard; conducting initial explorations to develop theories and to generate and even test hypotheses; and moving toward explanations (Sofaer, 1999, p. 1101).

As indicated by the gaps I identified in the literature (2.9) assessment of the effects of dogs on human health and well-being is one such area suited to qualitative inquiry. Ragin (1999) bridged the gulf between quantitative and qualitative inquiry by distinguishing between case-oriented and variable-oriented research. Case-oriented research focuses on a relatively small number of cases because they are significant in some way, whereas variable-oriented research assesses the relationship between aspects of cases across a large sample with the goal of identifying general patterns that hold for a population.

4.2 Study design and methods

4.2.1 Feasibility studies

“As suggested by an African proverb ... ‘You never test the depth of a river with both feet’, the main goal of pilot studies is to assess feasibility so as to avoid potentially disastrous consequences of embarking on a large study – which could potentially “drown” the whole research effort” (Thabane et al., 2010, p.1).

I framed my research as a feasibility study because the ability to compare the effectiveness of companion dogs and Mobility Dogs has yet to be demonstrated in practice. Feasibility studies, also called pilot studies, are often overlooked as an important phase of the research process, and remain underreported. More often than not, references to pilot studies in published literature are fleeting: they tend to be limited to the pre-testing of a questionnaire or justification for a particular research instrument (van Teijlingen, Rennie, Hundley, & Graham, 2001). This is despite the fact that owing to resource constraints research funders increasingly demand accountability. Feasibility studies in public health help
determine which interventions most warrant funding to further evaluate their efficacy and effectiveness. Key, pragmatic, questions raised in the assessment of intervention studies are: Can it work?, Does it work? and Will it work? (Bowen et al., 2009). The main goal of feasibility studies is to identify problems and so avoid pitfalls in conducting a future large-scale study. Van Teijlingen et al. (2001) summarised 16 important reasons for conducting feasibility studies. The most relevant to my proposed research are: assessing the feasibility of a full-scale study; assessing whether the research protocol is realistic and workable; assessing the adequacy of research instruments; assessing people's willingness to participate and the likely success of proposed recruitment approaches; determining what resources are needed; identifying logistical problems; assessing proposed data analysis techniques to uncover potential problems; collecting preliminary data; and developing future research questions and research plans (p. 293). Assessment of feasibility has been summarised as follows:

- **Process**: the steps that need to take place to conduct the study, including ethical considerations, recruitment, burden on participants, retention of participants (here, both human and canine), eligibility criteria, adequacy of data collection tools and identification of logistical problems with proposed methods.
- **Resources**: assessment of time, human resource and finance requirements.
- **Management**: identification of potential human, data organisation and data analysis problems.
- **Scientific**: an assessment of the preliminary data as an indication of likely outcomes (Thabane et al., 2010, pp. 2–3).

Accordingly I collated information during my study (Table 4.1) to later assess these aspects of feasibility.

**Table 4.1**

*Assessment of feasibility*

| Overall process:                          | - ethical considerations                      |
|                                        | - ease of recruitment                         |
|                                        | - effectiveness of advertising                |
|                                        | - suitability of eligibility criteria         |
|                                        | - appropriateness of methodology, methods and data collection tools |
|                                        | - ease of scheduling interviews              |
|                                        | - burden on participants                      |
|                                        | - retention of participants                   |
|                                        | - data management/analysis                    |
| Financial costs:                        | - advertising                                |
|                                        | - digital audio recorder                      |
|                                        | - transcription software                      |
|                                        | - travel                                     |
|                                        | - cameras and photo processing               |
|                                        | - koha/gifts                                 |
|                                        | - stationery and postage                      |
| Time costs:                             | - recruitment of participants                 |
|                                        | - travel to/from interviews                   |
|                                        | - set up, conduct, transcribe interviews      |
|                                        | - management of data and analysis             |
| Human resource:                         | - burden on researcher                        |
|                                        | - insider/outsider perspective                |
4.2.2 Case studies

“Properly conducted case studies, especially in situations where our knowledge is shallow, fragmentary, incomplete or non-existent have a valuable contribution to make” (Punch, 1998, p. 155).

Case study research designs are particularly useful for evaluating innovations, interventions and programmes (Baxter & Jack, 2009; Yin 1999), and have been a preferred strategy when “how” or “why” questions are posed (Yin, 2008). Over the past 20 years the case study has been repopularised in health research, largely as the result of the development of more complex and holistic health systems. However, it has always been common in disciplines including psychology, sociology, education and anthropology, and in medicine and psychotherapy there has been a particularly strong tradition of single case studies of one patient, and of drawing attention to atypical cases for clinical and teaching purposes (Merriam, 1998). The case study has been criticised for its lack of generalisability to a wider population, but its purpose “is not to represent the world, but to represent the case” (Stake, 1994, p. 245) and theoretical propositions (Yin, 2008). In fact a single ‘negative case’ may moderate, or even disprove, generalisations made by others. By way of illustration, Galileo’s rejection of Aristotle’s law of gravity was eventually “settled by an individual case because of the clever choice of extremes of metal and feather” (Flyvbjerg, 2006, p. 226).

There are a number of definitions of a case study (Merriam, 1998; Miles & Huberman, 1994; Stake, 1994; Yin, 2008). While wrapped in different vocabulary, all seek to ensure that the phenomenon of interest – here, the effects of companion dogs and Mobility Dogs on QOL in people with movement disorders – is intensively studied in a natural rather than experimental setting: a natural setting in this instance being the homes and wider communities in which people live and interact with their dogs. Case studies share similarities with traditional ethnographies which “focus on a certain situation, a group, a culture ... what goes on there, how these individuals or members of this group perceive things” (van Manen, 1990, p. 22). However, unlike traditional ethnographies which typically involve continuous – often long-term – immersion in a particular setting or group, case study research offers a more practical strategy of short intensive exposures (Sofaer, 1999). My longitudinal study therefore spaced my three, relatively brief, interactions with participants over 12 months because the service dog literature (2.7) indicated that it may take at least six months post-placement with a dog to report and/or observe benefits. While my study compared two sets of cases – people living with movement disorders and Mobility Dogs and people living with movement disorders and companion dogs – I avoid use of the term ‘comparison’ case (Yin, 1999) because this implies that one case is more important than the other, which is not my intent.

A hallmark of the case study is the use of a variety of data sources to converge (triangulate) in the analysis (Merriam, 1998; Patton, 2002; Yin, 2008): “The data collection techniques used, as well as the specific information considered to be ‘data’ in a study, are determined by the researcher’s theoretical orientation, by the problem and purpose of the study and by the sample selected” (Merriam, 1998, p. 70). With three data collection points scheduled over one year, I endeavoured to vary each interaction to: maintain participants’ interest; encourage participants’ involvement in the study; and provide means of triangulating data. In lieu of three sit-down, face-to-face interviews I also incorporated a quantitative measure of QOL, the WHOQOL-BREF & Physical Disabilities (PD) Module (4.2.7), participant-
observation in the form of a walk-along interview with participants and their dogs (4.2.8), and a photovoice assignment (4.2.9). I expected multiple interactions with participants over time would add strength to my study particularly in terms of capturing the temporal nature of relationships between people living with disabilities and their dogs. Repeated interactions would also help confirm the accuracy and stability of participant reports; demonstrate that I had established rapport with participants; and afford me the opportunity of following-up and/or clarifying particular details from one interview to the next.

4.2.3 Ethical considerations

The study received ethics approval from the University of Auckland Human Participants Ethics Committee (Appendix A) on December 20, 2012, for three years: reference number 8803 (Note that the University requires ethics applications prepared by PhD students to be submitted under the name of the lead supervisor). This approval satisfied the particular ethical concerns which were raised in proposing this research project. Human ethics applications can be assessed on the basis of “principlism” (Beauchamp & Childress, 2009, p.25), a four-principles approach to biomedical ethics. Namely: nonmaleficence (inflict no harm); beneficence (act for the benefit of others); autonomy (respect the right of individuals to act independently in an informed manner); and justice (provide equal rights for all people).

An important ethical issue to address in my study was the “appearance of conflict of interest” due to my employment with the MADT at the outset, and how this would be handled in terms of the recruitment of Mobility Dogs’ participants and in my role of interviewer. Initial contact with these participants was facilitated by a third party (4.2.5) and my close association with the MADT was made transparent on the Participant Information Sheet (PIS, Appendix C) and reiterated at first interview (see 4.2.6). I re-emphasise that I was not involved in the application, matching or placement processes for a Mobility Dog, but rather communications, public relations and marketing roles.

Another delicate area was preserving anonymity of Mobility Dogs’ participants recruited from a very small pool. Anonymity of these participants could not be guaranteed for readers of my thesis closely associated with the MADT. I flagged this possibility on the PIS (Appendix C) and included a statement on the consent form (Appendix D) to explicitly give me permission to access application forms and functional assessment reports from the organisation. I was aware that participants might disclose sensitive information during interviews that they had not shared with the MADT. All participants had the option to retract all or part of their interview transcript up until one month following each interview.

Further, I provided participants with a final summary narrative of their interviews to make transparent the verbatim material that might be included in my thesis. Again, there was the option to retract material that they did not wish to share. I emphasised on the PIS that withdrawal from the study would not affect ongoing support from the MADT for Mobility Dogs’ participants.

The photovoice activity also required careful thought. I informed participants of ethical requirements associated with taking photographs of others. Photographs that did meet these requirements were excluded. I sought additional consent from participants to include photographs in my thesis, once they had seen the photographs (4.2.9 and Appendix H).

I was mindful of adding burden to participants living with chronic conditions. I arranged to meet at a time and place of their choice, with a partner or caregiver present if desired (4.2.5). I was cognisant that participants may become tired and may need to attend to their dogs during the interviews. I provided the
option to complete and return questionnaires at a later date rather than extend the interaction. I recognised that some participants may become distressed when discussing some aspects of their lives: for example, talking about their experiences of living with a movement disorder or talking about companion animals now deceased. I took care to be sensitive to this possibility and attempted to respond appropriately. There was also the possibility that some participants may not have the physical capacity to complete forms, questionnaires and operate the camera provided. In these instances, I took alternative measures to ensure that they could participate fully in the study (4.2.7 and 4.2.9).

Two ethics-related issues arose during the study. Firstly, and not specifically addressed as part of my ethics application was the responsibility of researchers to be in good physical health when interacting with participants: especially vulnerable populations such as people with movement disorders. During April 2013 I postponed scheduled interviews with several participants because I had a cold. Although I could have conducted the interviews I gave consideration to my participants, perhaps susceptible to respiratory illness. Secondly, I was faced with the unexpected death of a companion dog during the study. Upon receiving this news I communicated with the participant to ensure that she had sufficient support, and postponed a second interview until she felt able to talk about her dog again.

My “perceived conflict of interest” brings me to the issue of reflexivity. My association with the MADT situated me to some extent as a participant. As the handler of one of the Trust’s canine ambassadors I shared not only participants’ experiences of everyday life with a dog, but also some aspects of being partnered with a Mobility Dog.

4.2.4 Reflexivity

I have conducted my research, to coin the words of Dyck (2000), “at home”. Dyck challenged the traditional view of anthropologists undertaking ‘legitimate’ fieldwork ‘overseas’, immersed in the far away worlds of ‘others’ (p.42). In the dual roles of anthropologist and parent, Dyck explored the social construction of children’s sports and discovered that “insights emerged out of personal experience that made visible and interesting a situation and set of relationships that would, in the absence of such non-professional involvement, likely have escaped my attention” (p. 40). This insider perspective possibly exposed and catalysed insights, which I might otherwise have missed. As the key ‘instrument’ of data collection in this study – and as a prelude to my findings – I share aspects of my personal experience with Chance. I cannot speak from the perspective of living with a movement disorder, but I can speak from the perspective of living with a quasi-service dog which I have trained, under guidance, to demonstrate a range of functional assistance tasks and meet international standards for public access. Although I have spent much of the past eight years in Chance’s company I do not describe myself as a ‘dog person’. My relationship with Chance is perhaps unusual: I was not looking for a dog when the opportunity to puppy-raise for the MADT arose, and nor did I expect our liaison to extend beyond 12 months. I describe my relationship with Chance as a partnership: in our shared role of ambassadors for the MADT, we are friends working together. I also describe Chance as a member of our family and a dependent: but a dependent dog, not “baby.” Having worked closely with Chance over the years we have formed a strong bond and I expect something of a merged identity, not dissimilar to many well-established service dog partnerships. I am often referred to as “the woman with the dog” and when I am out without Chance, it is not unusual for people to ask me where he is.
Based on my experience, I understand why many companion dogs lack training and why some recipients of Mobility Dogs – who do not enjoy my level of health and fitness – may struggle to maintain the level of training of their dog. Training Chance demanded time, perseverance and consistency: importantly, consistency from everyone who interacted with him. However, my dearth of previous canine experience demonstrates that people can learn to work effectively with Mobility Dogs despite a lack of prior affiliation with dogs. It was possibly an asset that I did not have pre-existing dog training ‘habits’ and diligently followed the instructions of the MADT trainers in order to best prepare a puppy for advanced training. I came to realise that much of what I liked about Chance, but did not like about many dogs, could be summed up by the word ‘training’. I have been formally assessed for public access proficiency on three occasions. The test can be a little nerve-wracking: taking a driving test is a good analogy. Maintenance of the requisite level of behaviour and training for public access demanded close attention in the early years and, again, I can appreciate that this may be difficult for some recipients of Mobility Dogs who are also managing a chronic condition.

Although Chance stays close to me most of the time, I have not experienced the feeling that he is my caregiver. However, I unexpectedly witnessed his potential in this role during my study. My father – very fond of Chance – was diagnosed with a terminal illness. On visiting the hospital, Chance was subdued, as though he knew my father was not well: he appeared empathetic, and demonstrated a desire to provide both companionship and comfort (Figure 4.1). Certainly Chance’s arrival on the ward lifted the spirits not only of my father but other in-patients, visitors and staff.

Figure 4.1. Chance as caregiver.

Without doubt, a handsome Golden Retriever – especially wearing a service jacket – is a potent catalyst of social interaction. Chance’s role is to raise awareness of Mobility Dogs. When the public engages with us it is my role to be a good human ambassador: to be friendly and provide information about the work of the MADT. In saying that, a 15-minute shopping trip can take an hour. It seems that many people who have – or have had – dogs, greatly enjoy talking about them. Over the years I have been regaled with many canine life histories in public spaces. Several years ago a Mobility Dog recipient aptly summed up this experience by saying, “you become the patron saint of all dog stories.” Consequently if I am pressed for time or do not feel like talking about dogs, I leave Chance at home. So, I understand the frustration that people with Mobility Dogs may experience at times and, unlike me, they do not have the option of leaving their dog behind if they also rely on its assistance in the community. Likewise, there have been numerous instances of members of the public photographing and patting Chance without first
seeking permission. In my case it is not critical if he is distracted in this way, but these situations could be trying for people partnered with service dogs. As an aside, I suspect that some raisers of service dogs are similarly rewarded by the psychosocial benefits they reap from being out-and-about in the community with a puppy wearing a service jacket; raising a service dog is a highly effective way for people to increase their social interaction.

Chance has had little effect on my motivation to exercise or access the outdoors. I had regularly walked, without a dog, for years. Alongside Chance’s work for the Trust I have always recognised the importance of daily exercise and leisure time (service jacket off) for his own health and well-being. I find it pleasurable watching him ‘being a dog’, revelling in an off-lead run, game of fetch or a swim. In my experience a well-exercised dog is more settled; therefore being unable to provide sufficient exercise for a medium to large dog would add to the challenge of maintaining its behaviour and training standards. When out on a regular walk with Chance – service jacket off – I have more interactions with strangers than if I am walking alone; passers-by commonly smile, say hello or make a comment – like, “beautiful dog.” I have found there are communities within communities based around dog-walking. At local parks conversations centre frequently on dogs, and in these situations I am more likely to know dogs’ names than those of their guardians.

Training and working with Chance has been personally rewarding. For many puppy-raisers the emotional wrench of handing the dog back to the organisation overshadows the satisfaction of raising the dog. I have often wondered what this experience would have been like for me: I was firmly focused on doing my best to prepare Chance for advanced training but certainly I – and other members of my family – had become attached to him; we did not hesitate to fund his leg surgery and offer him an alternative future as our companion dog. In his subsequent career as a canine ambassador he has excelled in the role of entertainer and educator to a wide audience and, from my perspective, has proven an amiable, reliable and enthusiastic colleague. He has accompanied me on countless speaking engagements and been filmed and photographed for news, documentary and promotional purposes. At times I have felt that our roles are almost reversed: I am a personal assistant managing his diary. The pinnacle of Chance’s career was arguably his role, during this study, as co-presenter at the annual Attitude Awards, 2013 (Figure 4.2).
I echo recipients of Mobility Dogs in writing that Chance is well trained but he is a dog, not a robot; indeed there has been much hilarity on occasions when he has not executed his routines quite as expected. I can see that such imperfect and idiosyncratic behaviours are part of what makes a real live service dog more attractive to many people than alternative assistive technologies (I touch on the development of robotic service dogs in Chapter Seven).

Chance has brought extra work. It is not work I begrudge, but I recognise that for some people with movement disorders caring for a dog would be more of an extra burden than a pleasure. Alongside exercise, feeding and general maintenance – including flea and worm treatments and nail clipping – Chance liberally contributes to household mess; he sheds a lot of hair (breed characteristic), tracks muddy paw prints through the house and adds to the laundry. Additionally, his role in the public eye requires close attention to bathing and grooming, which takes time. Aside from two major corrective leg surgeries, there have also been numerous visits to veterinarians for a variety of reasons; these have been disruptive to my everyday life and accompanied by varying degrees of anxiety.

With the benefit of public access rights I have not felt greatly restricted by having a dog as part of my day-to-day life; Chance has been able to accompany me to work, and now university. I am often asked whether I will get another dog when Chance dies. One of my participants immediately comes to mind as her experience suggests that what people say when their dog is still alive may not predict their future action. But with family and friends living overseas, making arrangements for Chance’s care when we are away is always an extra consideration, and a key reason why I would hesitate to acquire another dog.

My experience of veterinary costs is also a deterrent. Owing to Chance’s leg diagnosis, we accepted from the outset that specialist veterinary expenses were part and parcel of taking him on. Over and above standard veterinary care we have spent approximately NZ$20,000 on specialist procedures alone – two major leg surgeries and a total ear canal ablation – some of which has fortunately been covered by pet medical insurance. My findings (5.2.3.8) indicate that people are prepared to make sacrifices to meet their dogs’ veterinary expenses but meeting costs of this order would be very difficult, if not prohibitive, for many. Consequently I urge people to take out pet medical insurance – especially for dogs – but acknowledge that the monthly premium (currently NZ$45 for my policy) may exceed many household budgets, especially those further constrained by living with a chronic condition. I suggest the escalation in specialist veterinary medicine has created something of a dilemma around ‘duty of care’ to companion animals. Faced recently with the decision of how best to treat a troublesome non-malignant growth in Chance’s ear canal, my regular veterinarian uttered words to the effect, “it depends on how deep your pockets are.” I did pause to ponder the wisdom of a NZ$7,000 investment in an eight year old Golden Retriever, a breed with an average lifespan of 10 to 12 years. And this is a prime example of the conundrum that is the human-animal bond. For me, it is about taking responsibility for the welfare of a dependent living creature, one accorded the status of family member and colleague. It is also about reciprocity, providing care in return for the enjoyment that Chance has brought to me and my extended family, and recognition of all that he has contributed to raising awareness of, and funding for, the MADT. There is no doubt that Chance has changed and enriched my life, but I stop short of saying – had I completed a quantitative measure of QOL eight years ago and again today – that he has enhanced my overall QOL per se. In Chance I have been exposed to a canine experience that would be hard to
match. In the future I know I would not enjoy living with a puppy or an untrained dog, but perhaps I may consider re-homing retired service dogs.

Although I do not have a movement disorder I believe that my experience of working with the MADT has heightened my awareness, and deepened my understanding, of issues pertaining to living with physical disability. While predisposed to the view that dogs have the potential to impact QOL, I came to my study open-minded as to the relative merits of companion dogs and Mobility Dogs for enhancing QOL in people with movement disorders.

4.2.5 Recruitment

Generalisation in a statistical sense is not the goal of a case study. Rather, purposeful sampling is generally indicated (Patton, 2002) based on the assumption that to gather rich data, the researcher needs to select cases from which the most can be learnt in order to enable inferences about their logical or necessary features. There is no set formula for how many participants to include in a case study; the number can range from one to many. Lincoln and Guba (1985) recommended sampling to the point of saturation or redundancy; that is, when no new information is forthcoming.

I recruited two groups of participants – summarised in Figure 4.3 – in the Auckland, New Zealand, area: one group of participants (n=7) partnered with, or waited for, their own Mobility Dog. A second, comparison group (n=10) lived with companion dogs. I initially planned to study a total of 10 participants: five in each of the two groups. However, I came to believe that it would be prudent to recruit additional participants, if possible, given the longitudinal nature of the study. Without wishing to appear pessimistic, my experience of working with the MADT alerted me to possible attrition of participants, both human and canine, over the course of a year and I did not wish to find myself with insufficient data to work with.

Human participants in the Mobility Dogs group were all recruited via the MADT database. Constraining the potential size of this group was the number of full working teams living in the greater Auckland area: 13, early in 2012. I purposively recruited these participants to represent their breadth of experience with service dogs: from approved applicants waiting for a Mobility Dog, through to the first person to retire a Mobility Dog and make the transition to a second. The recruitment strategy therefore illustrates the use of maximum variation sampling to represent very different instances of a phenomenon (Patton, 2002). One of the participants waiting for a dog was the first person with Parkinson’s disease to apply for a Mobility Dog, as per my original research focus. Initial contact with potential participants was made by the Trust’s Client Services Coordinator who emailed an invitation and PIS (Appendix C) to selected Mobility Dog applicants and recipients. Interested parties were invited to contact me directly for further information.

The companion dog group was variously recruited via: print advertising (Appendix B) in a local suburban paper (The East and Bays Courier); online advertising in the weekly Auckland Disability Providers Network e-news; a listing on http://researchstudies.co.nz (free advertising for one month); a flyer shared by a rehabilitation clinic (Neuro Rehab Results); and community support networks (Parkinson’s Society and MS Society field workers emailed their Auckland members).

I recruited two further participants several months later than the main group. A companion dog participant with a large dog breed was added as the comparison group was skewed toward smaller dog breeds. The fact that the majority of companion dogs were smaller breeds than Mobility Dogs (service
dogs being medium to large breeds) was not surprising, but for the purposes of comparison I felt that another large breed would add depth to this group. This participant was recruited via word of mouth. An additional Mobility Dog participant was recruited on the cusp of receiving a Mobility Dog, as two previously recruited applicants were still awaiting placement with a Mobility Dog six months on. While they added useful insight to the process of acquiring a Mobility Dog, it was clear they would not receive a dog in time to follow for 12 months.

I hesitated whether to include one of the companion dog participants, a man with Parkinson’s disease. Although he lived with two dogs they were primarily the responsibility of his wife who trains dogs to compete in obedience and agility. It was she who initially contacted me about the study after observing that her husband walks with greater fluidity when holding the older (more sedate) dog’s leash. She was also training the younger dog to retrieve dropped items. I decided that these companion dogs sharing service dog characteristics could be a worthwhile addition to the study. I am also positioned in this study (4.2.4) wearing the multiple hats of researcher, employee of the MADT, guardian of a dog, and partner of a Mobility Dog.

![Figure 4.3. Summary of recruitment.](image)

### 4.2.6 First interaction: Semi-structured interview

I followed participants prospectively for 12 months with three interactions or data collection points: at baseline, 6 months and 12 months. The bulk of the fieldwork was conducted between February 2012 and April 2014. All participants were required to read the PIS (Appendix C) and sign a Consent Form (Appendix D). I prepared a Proxy Consent Form – should a mobility impairment preclude participants signing the document – but this was not required. With the permission of Mobility Dog participants, I accessed their MADT application forms and functional assessment reports. At baseline, participants were interviewed in depth (see Appendix E for semi-structured interview guide) about their present and past experiences of living with dogs and other companion animals, and their experiences of living with a movement disorder. As the first interaction in a longitudinal study this interview had the dual purposes of developing rapport with participants and eliciting information. Establishing rapport is crucial when the
research design hinges on the willingness of participants to engage openly with the researcher on multiple occasions. I prefaced this first interview with some information about myself: all participants knew I was associated with the MADT and lived with a dog. I emphasised that I was not involved with either training Mobility Dogs or the application process, and that I was not on a ‘mission’ to find Mobility Dogs ‘better’ than companion dogs; rather, I wished to gain a balanced and nuanced understanding of how each category of dog may impact QOL in people with movement disorders.

I modelled the interview guide on an ethnographic interview “getting people to talk about what they know” (Spradley, 1979, p. 9) or a “conversation with a purpose ... to gather information” (Berg, 1998, p. 57), with an emphasis on descriptive questions to elicit rich data in narrative form. I commenced these first interviews with general “grand tour questions” (Spradley, 1979, p. 86): either “tell me about your dog” or (in the case of Mobility Dog applicants waiting for a dog) “tell me about your current/past companion animals.” Starting our conversation by talking about animals felt more comfortable to me than beginning with personal details and experiences of movement disorders. I had previous experience of interviewing – as a clinical psychology student, market researcher and counsellor – and was guided by Kvale’s criteria (summarised by Roullston, 2010) for assessing the quality of an interview:

1. The extent of spontaneous, rich, specific, and relevant answers from the interviewee.
2. The shorter the interviewer’s questions and the longer the subjects’ answers, the better.
3. The degree to which the interviewer follows up and clarifies the meanings of the relevant aspects of the answers.
4. The ideal interview is to a large extent interpreted throughout the interview.
5. The interviewer attempts to verify his or her interpretations of the subjects’ answers in the course of the interview.
6. The interview is ‘self-communicating’ – it is a story contained in itself that hardly requires much extra descriptions and explanations (p. 202).

Sixteen initial interviews (ranging from 1-2 hours duration) were conducted in participants’ homes; one was arranged in a meeting room at my University. I was fortunate that all participants consented to have their interview recorded. I invested in a high quality digital recording device as I was aware that some of my participants may have quiet voices (often associated with Parkinson’s disease) or speak indistinctly because of their movement disorder. Also, for the second interaction I required a device optimal for recording conversations in outdoor or busy cafe environments. I recognised that participants may need to attend to their dogs during the interviews, and anticipated that other people (for example, partners and caregivers) may be present. During interviews, observations were made of participants’ symptoms of movement disorders, and interactions with their dogs (and vice versa).

4.2.7 WHOQOL-BREF & Physical Disabilities (PD) Module

At the conclusion of the first interview participants were asked to complete the WHOQOL-BREF & PD Module (WHO, 2011, Appendix F). Although the primary source of my data was interviews, I included this standardised measure of QOL at baseline and repeated it at 12 months; as part of a predominantly qualitative case study this measure offered a potential means of triangulation. The WHOQOL-BREF (WHO, 1996) is a 26-item (shortened version of the original WHOQOL-100 comprising 100 items) cross-culturally validated QOL assessment that generates a profile across four domains: physical,
psychological, social and environmental. The WHOQOL-BREF was recently validated for use in the general population of New Zealand (Krageloh et al., 2013). When I contacted the New Zealand WHOQOL Group for permission (Appendix G) to use the WHOQOL-BREF it was suggested that I use the combined WHOQOL-BREF & PD Module (WHO, 2011). The 13-item disabilities supplement was developed in response to the adoption of the ICF framework for health and disability (WHO, 2001). It is also cross-culturally validated and assesses three facets of disability: discrimination, autonomy and inclusion. All items are self-scored on five-point Likert scales. The combined 39-item tool is not unduly onerous to complete, and is described as appropriate for generic use enabling a range of diseases and conditions to be compared. Mindful of respondent burden, on top of an interview, I gave the option of completing the questionnaire at a later date. Specifically I provided participants with a postage-paid envelope to return the questionnaire or, in three cases, a softcopy of the questionnaire to complete and return via email.

4.2.8 Second interaction: Walk-along interview

This second interaction, approximately six months later, was my first opportunity to assess the effect of time on relationships between people with movement disorders and their dogs. I arranged, if possible, to join participants in an activity with their dog. It has been argued that examining relationships between people and companion animals requires a fusion of research traditions, including ethnography (A. Franklin, Emmison, Haraway, & Reitano, 2007). As expressed by Sanders (1999): “Human conversation is but one in a range of kinaesthetic bases for mutual empathetic exchanges between people and dogs which gives rise to a “shared physical grammar”” (p. 142). An alternative approach to a sit-down interview is a “guided grand tour” (Spradley, 1979, p. 87) or “situated talking while on the move (walking and/or driving)” (Brown & Durrheim, 2009, p. 911). Hence I anticipated that sharing an activity, such as exercising a dog, would generate rich data to enhance my understanding. In this role of participant-observer, my purpose was to interview participants and to observe interactions with their dogs – and possibly interactions with other people and their dogs – in a different environment. In cases where participants mainly spent time at home with their dogs, or were still waiting for a Mobility Dog, this interaction was by default a follow-up semi-structured interview in the absence of a specific activity. These interviews were also recorded.

A ‘walk-along’ or ‘go-along’ is a qualitative interview methodology which combines field observation and interviewing (Brown & Durrheim, 2009; Carpiano, 2009; Kuntz & Presnell, 2012; Kusenbach, 2003):

Go-along interviews may serve as a means of enhancing the contextual basis of qualitative research by those unable to commit the time and resources necessary for traditional ethnographic research” (Carpiano, 2009, p. 265) ... The go-along method is a unique means of obtaining contextually based information about how people experience their local worlds and the effects these experiences have on health and well-being (p. 271).

This approach conceives of the interview as more than a verbal exchange between two human participants. The interview becomes “an event in which spoken, material, and affective expressions by human and non-human agents gather in the process of ‘doing’ something together” (Kuntz & Presnall, 2012, p. 742, citing Brinkmann, 2011, p. 63). The walk-along interview places interviewing on a continuum between “naturalistic data-collection methods and ... methods that are directed/produced by the interviewer” (Brown & Durrheim, 2009, p. 925). Furthermore, providing participants with the opportunity to determine the nature and location of an activity positively shifts the power relations of the
research process to one of increased inclusion (Carpiano, 2009). And, the activity of walking – usually side-by-side with each party facing forward – potentially relaxes the dynamics of the interview: “walking and talking facilitated a participant/researcher relationship that tended to symmetry, which was ... a ‘more equitable’ and dialogical line of inquiry between us” (Brown & Durrheim, 2009, p. 926). Although walk-along interviews may be semi-structured they are likely to be more conversational with spontaneous questions arising from the immediate environment.

In my study this walk-along interview included participants and their dog/s. This enabled me to observe their relationship in a different context and how the presence of a dog may impact interactions in different environments. Eight participants proposed a walk, one a shopping trip, and one a visit to a cafe with their dog/s. Five of these activities required transport from the participant’s home to a particular locality; on four occasions I accompanied the participant in his/her vehicle, and on one occasion I pre-arranged to meet the participant at an off-lead dog park. One scheduled activity was thwarted on the day by inclement weather and this interview proceeded at home; in the words of Carpiano (2009) limitations of the walk-along interview include “mother nature” and the “physical health of the respondent” (p. 269), both highly salient to people with movement disorders.

Seven participants did not schedule an activity: five of these interviews were conducted at home and two in a cafe. In three cases a shared activity at six months was not applicable: two participants were still waiting for a Mobility Dog and one companion dog had died. One Mobility Dog participant was in the throes of retiring her first dog pending placement with a second, and I did not propose a walk-along interview with a new Mobility Dog recipient out of concern that it may be too demanding early in their partnership. The remaining three participants mainly spent time at home with their dogs. My second interactions with participants ranged from 30 minutes to two hours duration.

4.2.9 Third interaction: Photovoice

A third interaction at 12 months offered a second opportunity to consider the influence of time on relationships between people with movement disorders and their dogs. Photovoice afforded a small window into the life world of my participants and their dogs in my absence. It injected a participatory activity and provided fresh stimulus material for the final interview. I hoped too that, in the context of a longitudinal study, the prospect of looking at these photographs would encourage participation in the final phase of the study. Photovoice is a creative, participatory, qualitative research methodology which offers a dual voice of visual and spoken narratives. Photo elicitation – using photographs as a stimulus in interviews – has been used for some time (Collier, 1967) to help establish rapport and make people feel more comfortable during the interview process. When photographs are taken by research participants, they provide interviewers with more direct access to their points of view. Coined in the mid-1990s by Wang and colleagues (Wang & Burris, 1997; Wang, Yi, Tao, & Carovano, 1998) the term photovoice was conceived as more than straightforward photo elicitation. Rather, it was defined as: “a process by which people can identify, represent, and enhance their community through a specific photographic technique” (Wang, Cash, & Powers, 2000, p. 82). Collectively, participants were asked to select a set of photos that most accurately reflect their community’s needs and assets. It was hoped that photographs, together with corresponding narratives, would present a more powerful message to policymakers than words alone. A comprehensive review of the use of photovoice in health and public health research found that the methodology has been used flexibly (Catalani & Minkler, 2010). While taking photographs
undoubtedly offered participants the opportunity to be more actively involved in the research process, the original intent of photovoice as a group methodology to empower community involvement, action and advocacy was not always evident in the 37 studies selected for review. In this sense it is perhaps more accurate to say that the terms photovoice and photo elicitation – using participants’ own photographs – have become blurred.

Photovoice has been effectively employed in health and public health research to answer descriptive questions, to enhance understanding of particular phenomena (Catalani & Minkler, 2010). For example enhanced understanding of: paraplegia in the Cameroonian community (Allotey, Reidpath, Kouame, & Cummins, 2003); seniors’ experiences of pain (Baker & Wang, 2006); men’s experiences living with prostate cancer (Oliffe & Bottorff, 2007); and stroke survivors’ needs (Levin et al., 2007). From a phenomenological viewpoint, a photograph is more than a visual copy of an object. Researchers can make their own interpretations of photographs, but devoid of context these may not reflect what the images mean to participants. Therefore, photographers (participants) must add their own voice to ‘validate’ meaning (Radley & Taylor, 2003). Photovoice as a technique can yield rich descriptive information and enable triangulation with other data (Catalani & Minkler, 2010). It also offered an avenue for me to assess the extent to which participants’ sets of photographs corroborated interview data and my observations.

At the conclusion of the second interaction, I provided each participant with a Fujifilm QuickSnap Flash Camera (up to 27 frames) to take photographs that represent ‘living with my dog’ (refer Appendix H for instruction sheet). I deliberately did not suggest what participants might choose to photograph; in addition to using the photographs as a stimulus, I was interested in whether people with Mobility Dogs would, unprompted, photograph their dogs assisting with everyday tasks and/or in situations not usually the domain of a companion dog. I emphasised that for ethical reasons photographs may not include people other than themselves; if participants wished to show pictures of themselves with their dogs, they were invited to enlist the assistance of others. In several cases it was not physically possible for participants to use the type of camera I provided. I did not want this to be a barrier to their full inclusion in the study so I offered alternatives: two participants elected to use their own, easier to operate, digital devices (sending photographs via email and in the post on a USB stick); and two participants directed others (family members and carers) to take photographs for them using the camera provided. I supplied participants with postage-paid packets to return the cameras.

At 12 months, I interviewed participants for the final time (Appendix E) using their set of photographs as an added stimulus. Again, the interviews were recorded, and my questions were of an open and general nature: “tell me about this photo” or “what does this photo mean to you?” I recognised that some participants had access to more assistance with cameras than others which might have influenced their ability to provide photographs of themselves with their dog. Also, some participants might have deliberately chosen not to include photographs of themselves with their dog and this decision should not be interpreted as a lack of closeness. Therefore, after talking through the photographs, I asked participants whether there were any aspects of ‘living with my dog’ that they felt this exercise did not capture. Participants were also asked if there were any photos that they wanted me to exclude from consideration for my thesis.
Participants received a disk of their own photographs to keep. They also completed the WHOQOL-BREF & PD Module for a second time; some of them opted to complete this questionnaire at the end of the interview and others were supplied with a reply-paid envelope. At the conclusion of this third and final interaction, I invited participants to share any additional comments about their experience of being part of this study. I thanked them for their contribution with a NZ$50 gift voucher redeemable at Animates pet stores. My final interactions with participants ranged from 45 minutes to 2 hours duration.

4.3 **Transcription and analysis**

Consistent with case study protocol I collected and analysed data concurrently. Given the quantity and diversity of data, it was important to organise them in some way and to resist the distraction of interesting but irrelevant data. Above all, I endeavoured to keep the research question in focus and ensure that all data sources converged to understand the whole case (Yin, 2008). When it came to analysis, I recognised that each case may comprise embedded units (Yin, 2008). The ability to look at sub-units of a case facilitates analysis within the sub-units separately (within case analysis), between the different sub-units (between case analysis), or across all of the sub-units (cross-case analysis). For example: taking my two cases – people living with movement disorders and Mobility Dogs and people living with movement disorders and companion dogs – I may conceive of them comprising individual cases (n=7 and n=10 people respectively) or perhaps as sub-units of people with specific types of movement disorders, different sized dogs or particular demographic variables.

4.3.1 **Transcription**

I transcribed all the interviews to immerse myself fully in the data from the outset. I was aware that several recordings (due to quieter/less distinct voices) could be difficult for an outsider to understand accurately. Interviews were transcribed – with the aid of Express Scribe software – usually within two days, before I interviewed the next participant. The transcribed text was cleaned by removing speech fillers such as “ums” and “ahs”, self-corrections, and false starts where sentences or words were abruptly cut and a new sentence commenced, without changing the meaning of participants’ talk. Irrelevant dialogue was also ignored, leaving a note in the transcript such as: “chat about a recent trip overseas.” During the transcription process, I noted specific things to clarify and/or follow-up with participants in a subsequent interview. I shared three initial transcripts with my supervisors to critique my interview technique and review the quality of the data produced. Initially, I did not enjoy listening to myself in the role of interviewer; however, this process increased my awareness of my use of speech fillers, the need to be succinct when posing questions and how to frame my responses to stimulate rich narratives. Inevitably, the quality of interviews varied from one participant to another; some required very little in the way of prompting whilst others were more challenging. In a few cases it was physically difficult (as the result of individual impairments) for participants to speak for sustained periods, and I was mindful of participants becoming tired.

4.3.2 **Thematic analysis**

Concurrent with ongoing fieldwork I commenced coding of the transcripts. Initially, I employed a general inductive approach, which is suited to producing a set of categories and themes whose saliency is assessed from analysis of the interview data and which are relevant to addressing the research
objectives: “The primary purpose of the inductive approach is to allow research findings to emerge from the frequent, dominant, or significant themes inherent in raw data, without restraints imposed by structured methodologies” (D. R. Thomas, 2006, p. 238). A general inductive approach has been widely used in health and social science research and evaluation, and has three main purposes:

1. to condense raw textual data into a brief, summary format;
2. to establish clear links between the evaluation or research objectives and the summary findings derived from the raw data and to ensure that these links are both transparent (able to be demonstrated to others) and defensible (justifiable given the objectives of the research; and
3. to develop a framework of the underlying structure of experiences or processes that are evident in the raw data (p.238).

Accordingly, I closely read each transcript several times to elicit meanings before assigning codes (labels) to segments of data. As new codes were observed, I reread the transcripts, and recoded if necessary. This iterative process was used to develop categories, or groups of related codes sharing similarities, which were conceptualised into broad themes. The aim of an inductive analysis is: “to create a small number of summary categories (e.g., between three and eight categories) that in the evaluator’s view capture the key aspects of the themes identified in the raw data and are assessed to be the most important themes given the evaluation objectives” (D. R. Thomas, 2006, p. 242). These themes were then explored to see if they cut across variation in participant attributes within and between the companion dog and Mobility Dog groups.

I shared a transcript of an early interview with my supervisors to code independently and compare with my coding for consistency. Content of each of the three interactions over 12 months was coded in the same way; that is, initial interviews, walk-along interviews, and photovoice commentaries. I used a book of Excel spreadsheets to manage textual data, initially headed with broad topic areas (for example: current dogs, movement disorders, other companion animals) which were increasingly subdivided into categories, frequently based on recurring words or phrases. With both documents open on a split screen, I found it easy to copy and paste portions of text from one document to the other. I was aware of software packages designed to assist with the organisation and retrieval of qualitative data (having been introduced to NVivo as part of a post-graduate course in Undertaking Qualitative Health Research). However, with a small number of participants, I preferred to use my manual approach because; it facilitated my immersion in the data, which in turn enabled me “to identity connections and patterns, to make systematic comparisons, and to develop interpretations” (Pope, van Royen, & Baker, 2002, p. 150). To aid my analysis I adopted a reference system: MD1/1 (first interview with first Mobility Dog participant); CD3/2 (second interview with third companion dog participant); MD7/3 (third interview with seventh Mobility Dog participant), and so on. This enabled me to see if categories were shared by members of the MDG and CDG, if particular categories were more important to some people than others, and if these categories remained important over the year.

In an inductive analysis, D. R. Thomas (2006) acknowledged that sometimes more than half of the accumulated textual data may be irrelevant to the study objectives. Indeed, in the process of eliciting narratives to address my research question I amassed a vast quantity of data. Although some of the data were not of primary interest, they facilitated rapport building and provided background and general context to experiences of living with movement disorders, disability and dogs in New Zealand. D. R.
Thomas (2006) added that in practice the general inductive approach is also deductive to the extent that themes are expected to address the study question and draw on supporting literature “to test data against prior assumptions, theories or hypotheses” (p. 238). This deductive approach draws on a thorough grounding in relevant literature (Chapter Two) and conceptual frameworks (Chapter Three).

4.3.3 Summary narratives

One of the strengths of qualitative research is to enable participants’ voices to be heard, to:

Allow people to speak in their own voice, rather than conforming to categories and terms imposed on them by others. Often qualitative researchers find that they are giving voice ... to those who are otherwise rarely heard” (Sofaer, 1999).

These words were echoed by Gibson (2013) calling for more voices from New Zealand’s disabled community to be heard. Although the coded categories derived in a general inductive approach are often assigned labels using participants’ own words and further supported by illustrative verbatim material, in the context of a longitudinal case study I felt that the process of coding resulted in fragmentation of text, and, importantly, loss of the coherence and development of individual narratives over time. For instance, these concerns characterised participants who had experienced a significant change in their dog-related status over the year: namely, participants who received their first Mobility Dogs; one participant who retired a Mobility Dog and transitioned to a second; and one participant whose companion dog died after six months.

The research challenge is to decide what elements of the interview are important, and how one records and interprets them ... an unforeseen outcome of the reliance on code and retrieve techniques is the loss of the many layers of meaning at which an interview operates (Wiles, Rosenberg, & Kearns, 2005, p. 90).

I therefore decided to produce summary narratives, to present several cases as more coherent wholes to sit among my thematic analysis. I consolidated the cleaned interview transcripts of each participant into summary narratives – under the broad heading of ‘living with my movement disorder and my dog’ – removing my questions and prompts and taking care to use only participants’ words. Although I produced the narratives by adhering strictly to individual voices (participants’ exact choice of words), I acknowledge an element of selectivity; often similar material was repeated within and across interviews and in reducing the data I opted for the wording that I felt best articulated a particular idea. Sometimes I combined related material from within and across interviews into the same paragraph to further develop a particular narrative thread.

To enhance the rigour of a case study it is recommended that researchers provide feedback to participants (referred to as member checking) and invite their comment (Stake, 1994; Yin, 2008). Accordingly, these summary narratives were sent to participants to give them the opportunity to check that I had accurately captured the content of our collective conversations. Admittedly considerable time – 15 to 16 months – had elapsed since the first interview so it is most unlikely that participants recalled exactly what they had said; therefore, my purpose in sending the summaries was to ask participants to affirm that they represent content that they might feasibly have shared, and in the language provided. Feedback received was brief but positive. For example:

This is great – thanks for letting me read it. No changes from my point of view.

I didn’t realise I said so much. It’s all good though.
It certainly is weird reading all those colloquialisms! However, it looks fine to me. I think this is great, God I don’t half bang on! But I think this is definitely ‘our’ story. These summary narratives collectively comprise thousands of words (2,500-5,000 for each of my 17 participants). I have therefore selected excerpts to present some participants as individual cases, reflecting the breadth of canine-related experiences in this study. I have also incorporated photographs from the photovoice assignment to illustrate thematic and narrative data.

4.3.4 WHOQOL-BREF & PD Module analysis

I recognised that my small number of participants (n=17) would preclude statistical analysis of their data, but in the context of my feasibility study I was interested in what the WHOQOL-BREF & PD Module might offer to a larger study in the future: is the measure appropriate for participants in this context? Do scores of self-reported QOL appear consistent with data obtained during interviews? I was cognisant of the disability paradox, and associated response shift (3.5), which may confound meaningful interpretation of ‘before and after’ scores. Therefore, I could only consider in a rudimentary fashion whether any obvious shifts in participants’ QOL scores at 12 months could be explained by interview data and vice versa: do changes in scores reflect significant life events (canine-related, health-related or other) experienced over the year?

4.3.5 Photovoice analysis

As noted in 4.3.2 above, participants’ commentaries of their ‘living with my dog’ photographs were coded as part of the overall thematic analysis. Additionally, I was interested in exploring whether the content of photographs taken by the two comparison groups was differed in any way. Therefore I also summarised the content of photographs (Table 5.9) in terms of who was in the photographs (subjects), where the photograph was taken (location), and the nature of the activity depicted in the photograph (activity). Some photographs were ignored as they were saliently off topic; underexposed; and/or included people (who could be identified) other than the participant.

The findings of my study are, by definition in a feasibility study, preliminary. The prime importance is in their implications for designing further studies, rather than as a final answer to the question of how companion dogs and service dogs compare as QOL interventions for people with movement disorders. The following chapter presents a detailed account of these findings which are indicative of what might be found in a future large-scale study.
CHAPTER FIVE
RESEARCH PARTICIPANTS AND THE ROLES OF DOGS

“The case study should take the reader in to the case situation, a person’s life, a group’s life, or a program’s life” (Patton, 2002, p, 450).

This chapter compares effects of companion dogs and Mobility Dogs on components of QOL in people with movement disorders. In a feasibility study, these ‘preliminary findings' indicate likely outcomes of a future study. My three interactions with 17 participants over 12 months yielded a mix of qualitative and quantitative data: 51 interviews, over 200 photographs and 32 completed WHOQOL-BREF & PD Module questionnaires. As part of a case study triangulating several methods of data collection, I first provide a comprehensive summary of participants based on quantitative data followed by my thematic analysis of the roles of dogs that potentially impact QOL in people with movement disorders.

5.1 Summary of participants

I adopt the notation MD1-MD7 and CD1-CD10 to refer to individual Mobility Dog and companion dog participants respectively. I also use the abbreviations MDG for Mobility Dog group and CDG for companion dog group.

Tables 5.1-5.6 summarise and describe my 17 research participants. This information is mostly collated from responses to the ‘About You’ section of the WHOQOL-BREF & PD Module. Information pertaining to other companion animals (present and past) and other health concerns and conditions was gathered during the initial interview. Table 5.1 shows the composition of the two comparison groups, on selected variables. In total, 11 human participants were female and six were male, with ages ranging at the study outset from 21 to 68 years. The mean age of the participants was 48.7 and 49.3 years for the MDG and CDG respectively (Table 5.2). All participants were initially living at home with varying degrees of paid or unpaid support (Table 5.3); within the year, one member of the CDG had moved into residential care. Overall, participants had achieved high levels of education with 11 having attended university, and two currently attending university.

Fourteen participants completed the full longitudinal study as designed: three participants completed what they could. One companion dog died suddenly, just before the six month follow-up. This event was traumatic for this participant and I am very grateful that she agreed to continue with the study. From my perspective her continued involvement presented an unexpected opportunity to explore the impact of the loss of a companion dog. Similarly, the two applicants who were still waiting for Mobility Dogs both agreed to follow-up interviews. Their involvement enhanced my understanding of the MADT application process and the experience of waiting for a service dog. One of these participants received a Mobility Dog a few weeks following the 12 month interview, and he agreed to an additional interview four months post-placement.
Table 5.1
Summary of comparison groups at baseline

<table>
<thead>
<tr>
<th></th>
<th>Participants (n=17)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mobility Dogs (n=7)</td>
<td>Companion Dogs (n = 10)</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Female</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Age (years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21–30</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>31–40</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>41–50</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>51–60</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>61–70</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Mean age</td>
<td>48.7 years</td>
<td>49.3 years</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Married</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Living with partner</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Divorced</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Not specified</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Living situation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No support required</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Unpaid carer support</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Paid carer support</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Highest education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>College/university</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Secondary school</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Main occupation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paid employment</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Education</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Home-based</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Retired</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>None</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>
Table 5.1 Continued

<table>
<thead>
<tr>
<th>Participants (n=17)</th>
<th>Mobility Dogs (n=7)</th>
<th>Companion Dogs (n=10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Situation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Well above</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Slightly above</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Average</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Slightly below</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Well below</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Movement Disorder</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cerebral palsy</td>
<td>1</td>
<td>1*</td>
</tr>
<tr>
<td>Multiple sclerosis</td>
<td>1</td>
<td>4*</td>
</tr>
<tr>
<td>Muscular dystrophy</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Parkinson's disease</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Spinal cord injury</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Stroke</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Other - result of fall</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Visibility Of Disability</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not at all</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>A little</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Moderately</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Mostly</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Totally</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>How Much Affects Life</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mildly</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Moderately</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Severely</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Profoundly</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Main Mode Of Mobility (may use more than one: depends on circumstances)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ambulatory</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Walking stick</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Manual wheelchair</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Power wheelchair</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Mobility Scooter</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

* one with both CP and MS
Table 5.2

*Gender and age at baseline*

<table>
<thead>
<tr>
<th>Participants With:</th>
<th>Gender</th>
<th>Age (years)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mobility Dogs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MD1</td>
<td>Male</td>
<td>63</td>
</tr>
<tr>
<td>MD2</td>
<td>Female</td>
<td>43</td>
</tr>
<tr>
<td>MD3</td>
<td>Female</td>
<td>27</td>
</tr>
<tr>
<td>MD4</td>
<td>Female</td>
<td>64</td>
</tr>
<tr>
<td>MD5</td>
<td>Male</td>
<td>66</td>
</tr>
<tr>
<td>MD6</td>
<td>Female</td>
<td>57</td>
</tr>
<tr>
<td>MD7</td>
<td>Female</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mean age 48.7</td>
</tr>
<tr>
<td><strong>Companion Dogs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CD1</td>
<td>Female</td>
<td>51</td>
</tr>
<tr>
<td>CD2</td>
<td>Male</td>
<td>46</td>
</tr>
<tr>
<td>CD3</td>
<td>Female</td>
<td>42</td>
</tr>
<tr>
<td>CD4</td>
<td>Female</td>
<td>41</td>
</tr>
<tr>
<td>CD5</td>
<td>Female</td>
<td>43</td>
</tr>
<tr>
<td>CD6</td>
<td>Male</td>
<td>68</td>
</tr>
<tr>
<td>CD7</td>
<td>Male</td>
<td>43</td>
</tr>
<tr>
<td>CD8</td>
<td>Female</td>
<td>55</td>
</tr>
<tr>
<td>CD9</td>
<td>Male</td>
<td>64</td>
</tr>
<tr>
<td>CD10</td>
<td>Female</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mean age 49.3</td>
</tr>
</tbody>
</table>
Table 5.3

*Education, occupation, marital status, living and financial situations*

<table>
<thead>
<tr>
<th>Participants With:</th>
<th>Education</th>
<th>Occupation</th>
<th>Marital Status</th>
<th>Living Situation</th>
<th>Financial Situation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mobility Dogs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MD1</td>
<td>College/university</td>
<td>Part-time self-employed</td>
<td>Married</td>
<td>Living at home - no support required</td>
<td>Well above average</td>
</tr>
<tr>
<td>MD2</td>
<td>College/university</td>
<td>Paid employment</td>
<td>Married</td>
<td>Living at home - support from unpaid carers</td>
<td>Well above average</td>
</tr>
<tr>
<td>MD3</td>
<td>College/university</td>
<td>Education</td>
<td>Single</td>
<td>Living at home - support from unpaid carers*</td>
<td>Slightly below average</td>
</tr>
<tr>
<td>MD4</td>
<td>College/university</td>
<td>None</td>
<td>Living with partner</td>
<td>Living at home - support from paid carers</td>
<td>Slightly below average</td>
</tr>
<tr>
<td>MD5</td>
<td>College/university</td>
<td>Retired</td>
<td>Single</td>
<td>Living at home - support from unpaid carers</td>
<td>Well below average</td>
</tr>
<tr>
<td>MD6</td>
<td>High school</td>
<td>Other</td>
<td>(left blank)</td>
<td>Living at home - support from unpaid carers</td>
<td>Average</td>
</tr>
<tr>
<td>MD7</td>
<td>High school</td>
<td>Education</td>
<td>Single</td>
<td>Living at home - support from unpaid carers</td>
<td>Average</td>
</tr>
<tr>
<td><strong>Companion Dogs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CD1</td>
<td>College/university</td>
<td>Home-based</td>
<td>Single</td>
<td>Living at home - support from unpaid carers</td>
<td>Well below average</td>
</tr>
<tr>
<td>CD2</td>
<td>High school</td>
<td>None</td>
<td>Single</td>
<td>Living at home - support from unpaid carers</td>
<td>Well below average</td>
</tr>
<tr>
<td>CD3</td>
<td>College/university</td>
<td>None</td>
<td>Single</td>
<td>Living at home - support from unpaid carers</td>
<td>Well below average</td>
</tr>
<tr>
<td>CD4</td>
<td>High school</td>
<td>Home-based</td>
<td>Divorced</td>
<td>Living at home - support from unpaid carers</td>
<td>Slightly above average</td>
</tr>
<tr>
<td>CD5</td>
<td>College/university</td>
<td>Paid employment</td>
<td>Living with partner</td>
<td>Living at home - support from unpaid carers</td>
<td>Slightly above average</td>
</tr>
<tr>
<td>CD6</td>
<td>College/university</td>
<td>Retired</td>
<td>Married</td>
<td>Living at home - support from unpaid carers**</td>
<td>Slightly above average</td>
</tr>
<tr>
<td>CD7</td>
<td>High school</td>
<td>Other</td>
<td>Single</td>
<td>Living at home - no support required</td>
<td>Average</td>
</tr>
<tr>
<td>CD8</td>
<td>High school</td>
<td>Paid employment</td>
<td>Living with partner</td>
<td>Living at home - no support required</td>
<td>Slightly below average</td>
</tr>
<tr>
<td>CD9</td>
<td>College/university</td>
<td>Retired</td>
<td>Married</td>
<td>Living at home - support from unpaid carers</td>
<td>Average</td>
</tr>
<tr>
<td>CD10</td>
<td>Some university</td>
<td>Paid employment</td>
<td>Single</td>
<td>Living at home - no support required</td>
<td>Slightly below average</td>
</tr>
</tbody>
</table>

* @ 12 months: Living at home - support from paid caregivers
** @ 12 months: Living in residential care home
Participants’ movement disorders, diagnosed by a doctor, were: cerebral palsy, MS (relapsing-remitting and primary progressive), muscular dystrophy (Calpainopathy, Facioscapulohumeral and Spinal Muscular Atrophy (SMA) Type 2), Parkinson’s disease, spinal cord injury (paraplegia, quadriplegia and adjacent segment syndrome), stroke, and a complex hip-related injury as the result of a fall (Table 5.4). One participant in the CDG had been diagnosed with both cerebral palsy and MS. The mean number of years with which participants reported living with their movement disorder(s) was approximately 25 years in the MDG and 17 years in the CDG. Five participants reported congenital conditions, but might not have received a specific diagnosis until some years later (for example: definitive diagnosis of Calpainopathy following recent genetic testing). Some of these conditions are unpredictably progressive in nature – MS, muscular dystrophy and Parkinson’s – and therefore the number of years living with a disorder does not necessarily reflect years living with the current level of impairment. In terms of visibility (the self-perceived extent to which other people see or notice this disability) 10 participants described their disability as totally visible, one mostly, four moderately, one a little, and one not at all. Relatively more participants in the CDG were ambulatory: walking either unaided or sometimes with the support of a stick. From my experience of working with the MADT this finding supports the perception that Mobility Dogs are an intervention for people living with relatively higher levels of disability, primarily wheelchair users. This perception is one that the Trust hopes to change with the introduction of ‘walker dogs’ to provide stability for people who are ambulant. In response to how much this disability affects your life, four participants answered ‘profoundly’, three ‘severely’, eight ‘moderately’, and two ‘mildly’ (Table 5.5). One moderately affected member of the CDG transitioned to severely over the course of the year. Participants also talked about other health-related conditions/concerns that they manage in addition to a movement disorder (Table 5.4).

Table 5.6 summarises participants’ dogs (breed, sex and age), other current companion animals, and past companion animals. All Mobility Dogs were medium or large breeds whereas companion dogs ranged from a petite Chihuahua to a 70 kilogram Leonburger. The mean age of the dogs at baseline was 4.7 years for Mobility Dogs, and 6.1 years for companion dogs. My data suggest that current dog ownership is predicted by a past history of living with assorted companion animals: all except three participants had previously lived with at least one dog. Figure 5.1 presents a collage of canine participants derived from the photovoice exercise.

With the exception of three participants in the CDG in paid employment, participants spent most of each day in the vicinity of their dogs. All but one of the participants with dogs at the start of the study were in the immediate presence of their dog for at least some of the interview. One did not have her Mobility Dog at University because of access issues (described in 5.2.3.7). I observed five dogs (one Mobility Dog and four companion dogs) moving to and from the house and garden; four companion dogs moved to and from other areas of the house; three dogs (one Mobility Dog and two companion dogs) remained in close proximity throughout.

Two Mobility Dogs’ participants were first interviewed just prior to placement and team training with their dog, and two were still on the waiting list a year later and therefore unable to complete the study in its entirety: MD5 received a Mobility Dog in April and MD6 in October 2014. One Mobility Dog participant and three companion dog participants were accompanied at all times by a family member; one Mobility Dog participant and four companion dog participants were intermittently accompanied by a family
member or carer. In the case of the retiring Mobility Dog, I invited this participant’s husband to join the second interview as he was integral to the decision to retain or not the first Mobility Dog in the household.

Table 5.4
Movement disorder, years with disorder and other reported health conditions/concerns

<table>
<thead>
<tr>
<th>Participants With:</th>
<th>Movement Disorder</th>
<th>Years With Disorder</th>
<th>Other Reported Health Conditions/Concerns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobility Dogs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MD1</td>
<td>Parkinson's disease</td>
<td>11</td>
<td>Back/nerve problem which affects ankle</td>
</tr>
<tr>
<td>MD2</td>
<td>Muscular dystrophy</td>
<td>43*</td>
<td>High blood pressure (BP), complications following chickenpox</td>
</tr>
<tr>
<td>MD3</td>
<td>Cerebral palsy</td>
<td>27*</td>
<td>Anxiety, prone to respiratory conditions</td>
</tr>
<tr>
<td>MD4</td>
<td>Multiple sclerosis</td>
<td>30</td>
<td>Migraine, cataract</td>
</tr>
<tr>
<td>MD5</td>
<td>Complex hip-related injury</td>
<td>34</td>
<td>Chronic Obstructive Pulmonary Disease, gout, lymphedema, cancer, depression, cardiovascular disease, sleep apnoea, cancer</td>
</tr>
<tr>
<td>MD6</td>
<td>Spinal injury</td>
<td>10</td>
<td>Rheumatoid arthritis, depression, hypopituitarism, knee replacement, high BP</td>
</tr>
<tr>
<td>MD7</td>
<td>Muscular dystrophy</td>
<td>21*</td>
<td>Prone to respiratory conditions</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mean 25.1</td>
</tr>
<tr>
<td>Companion Dogs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CD1</td>
<td>Stroke</td>
<td>3</td>
<td>High BP</td>
</tr>
<tr>
<td>CD2</td>
<td>Multiple sclerosis</td>
<td>24</td>
<td>Infections from catheter</td>
</tr>
<tr>
<td>CD3</td>
<td>Spinal cord injury</td>
<td>20</td>
<td>Central pain syndrome, vertigo</td>
</tr>
<tr>
<td>CD4</td>
<td>Multiple sclerosis</td>
<td>3</td>
<td>Depression</td>
</tr>
<tr>
<td>CD5</td>
<td>Muscular dystrophy</td>
<td>43*</td>
<td>Not applicable</td>
</tr>
<tr>
<td>CD6</td>
<td>Parkinson's disease</td>
<td>6</td>
<td>Impulse control disorder, dementia, knee replacement x 2, sciatica</td>
</tr>
<tr>
<td>CD7</td>
<td>Cerebral palsy + MS</td>
<td>43* + 20</td>
<td>Epilepsy, stroke, heart condition, alcoholism</td>
</tr>
<tr>
<td>CD8</td>
<td>Multiple sclerosis</td>
<td>9</td>
<td>Not applicable</td>
</tr>
<tr>
<td>CD9</td>
<td>Parkinson's disease</td>
<td>14</td>
<td>Blind in one eye, severe headaches</td>
</tr>
<tr>
<td>CD10</td>
<td>Spinal cord injury</td>
<td>7</td>
<td>Elbow pain</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mean 17.2</td>
</tr>
</tbody>
</table>

*Congenital
Table 5.5
Perceived visibility of movement disorder, main mode of mobility and how much movement disorder affects life

<table>
<thead>
<tr>
<th>Participants With:</th>
<th>Movement Disorder</th>
<th>How Visible Is Disability/ Main Mode Of Mobility</th>
<th>How Much Affects Life</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mobility Dogs</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MD1</td>
<td>Parkinson's disease</td>
<td>Totally/Ambulatory + walking stick sometimes</td>
<td>Mildly</td>
</tr>
<tr>
<td>MD2</td>
<td>Muscular dystrophy</td>
<td>Totally/Power chair</td>
<td>Moderately</td>
</tr>
<tr>
<td>MD3</td>
<td>Cerebral palsy</td>
<td>Totally/Manual + power chairs</td>
<td>Moderately</td>
</tr>
<tr>
<td>MD4</td>
<td>Multiple sclerosis</td>
<td>Moderately/Manual chair + mobility scooter</td>
<td>Severely</td>
</tr>
<tr>
<td>MD5</td>
<td>Complex as result of 4 storey fall</td>
<td>Totally/Power chair</td>
<td>Profoundly</td>
</tr>
<tr>
<td>MD6</td>
<td>Spinal injury</td>
<td>Mostly/Walking stick*</td>
<td>Severely</td>
</tr>
<tr>
<td>MD7</td>
<td>SMA Type 2</td>
<td>Totally/ Power chair</td>
<td>Moderately</td>
</tr>
<tr>
<td><strong>Companion Dogs</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CD1</td>
<td>Stroke</td>
<td>A little/Ambulatory</td>
<td>Mildly</td>
</tr>
<tr>
<td>CD2</td>
<td>Multiple sclerosis</td>
<td>Totally/Power chair</td>
<td>Profoundly</td>
</tr>
<tr>
<td>CD3</td>
<td>Spinal cord injury/quadriplegia</td>
<td>Totally/Manual chair + caregiver</td>
<td>Profoundly</td>
</tr>
<tr>
<td>CD4</td>
<td>Multiple sclerosis</td>
<td>Not at all/Ambulatory†</td>
<td>Moderately</td>
</tr>
<tr>
<td>CD5</td>
<td>Muscular dystrophy</td>
<td>Totally/Power chair</td>
<td>Severely</td>
</tr>
<tr>
<td>CD6</td>
<td>Parkinson's disease</td>
<td>Moderately/Ambulatory</td>
<td>Moderately**</td>
</tr>
<tr>
<td>CD7</td>
<td>Cerebral palsy/MS</td>
<td>Moderately/Ambulatory + walking stick sometimes</td>
<td>Moderately</td>
</tr>
<tr>
<td>CD8</td>
<td>Multiple sclerosis</td>
<td>Moderately/Ambulatory</td>
<td>Moderately</td>
</tr>
<tr>
<td>CD9</td>
<td>Parkinson's disease</td>
<td>Totally/Ambulatory</td>
<td>Profoundly</td>
</tr>
<tr>
<td>CD10</td>
<td>Spinal cord injury/paraplegia</td>
<td>Totally/Manual chair</td>
<td>Moderately</td>
</tr>
</tbody>
</table>

* @ 12 months: Power chair
** @ 12 months: Walking stick
† @ 12 months: Severely
Table 5.6
Breed, sex and age of dog/s and other current and past companion animals

<table>
<thead>
<tr>
<th>Participants With:</th>
<th>Breed of Dog/s</th>
<th>Sex</th>
<th>Age (years)</th>
<th>Other Current Animals</th>
<th>Past Companion Animals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobility Dogs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MD1</td>
<td>Labrador retriever*</td>
<td>Male</td>
<td>2</td>
<td>Cats x 2</td>
<td>Cats</td>
</tr>
<tr>
<td>MD2</td>
<td>German shepherd + Golden retriever**</td>
<td>Female</td>
<td>2 + 2**</td>
<td>None</td>
<td>Dogs</td>
</tr>
<tr>
<td>MD3</td>
<td>Labrador retriever x Poodle</td>
<td>Female</td>
<td>7</td>
<td>Turtle</td>
<td>Dog</td>
</tr>
<tr>
<td>MD4</td>
<td>Labrador retriever</td>
<td>Male</td>
<td>6</td>
<td>Cat</td>
<td>Dog and cats</td>
</tr>
<tr>
<td>MD5</td>
<td>Waiting for Mobility Dog</td>
<td>N/A</td>
<td>N/A</td>
<td>None</td>
<td>Dog and cats</td>
</tr>
<tr>
<td>MD6</td>
<td>Waiting for Mobility Dog</td>
<td>N/A</td>
<td>N/A</td>
<td>None</td>
<td>Cats</td>
</tr>
<tr>
<td>MD7</td>
<td>Golden retriever*</td>
<td>Male</td>
<td>2</td>
<td>Dog</td>
<td>Dog</td>
</tr>
</tbody>
</table>

Table continued:

<table>
<thead>
<tr>
<th>Participants With:</th>
<th>Breed of Dog/s</th>
<th>Sex</th>
<th>Age (years)</th>
<th>Other Current Animals</th>
<th>Past Companion Animals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Companion Dogs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CD1</td>
<td>Manchester terrier</td>
<td>Male</td>
<td>7***</td>
<td>None</td>
<td>Dogs</td>
</tr>
<tr>
<td>CD2</td>
<td>Jack Russell</td>
<td>Female</td>
<td>11</td>
<td>None</td>
<td>Dogs</td>
</tr>
<tr>
<td>CD3</td>
<td>Dachshund x Papillon</td>
<td>Female</td>
<td>5</td>
<td>None</td>
<td>Dogs</td>
</tr>
<tr>
<td>CD4</td>
<td>Border collie cross</td>
<td>Female</td>
<td>5</td>
<td>Cats x 3, rabbit</td>
<td>Dog, cat, rats, mice, guinea pigs</td>
</tr>
<tr>
<td>CD5</td>
<td>Chihuahua</td>
<td>Male</td>
<td>3</td>
<td>Cat, skink</td>
<td>Dog</td>
</tr>
<tr>
<td>CD6</td>
<td>Schnauzer x Poodle</td>
<td>Male</td>
<td>4</td>
<td>None</td>
<td>Dogs and cats</td>
</tr>
<tr>
<td>CD7</td>
<td>Rottweiler x Ridgeback</td>
<td>Female</td>
<td>6</td>
<td>Cat, birds x 2, turtles x 2</td>
<td>Cats, rabbits, mice, guinea pigs, rats</td>
</tr>
<tr>
<td>CD8</td>
<td>Tibetan spaniel</td>
<td>Male</td>
<td>10</td>
<td>Cat</td>
<td>Dog, mice, turtle, ducklings, sheep</td>
</tr>
<tr>
<td>CD9</td>
<td>Labrador cross + Whippet cross</td>
<td>Male</td>
<td>9 + 1</td>
<td>None</td>
<td>Dogs, cats, rabbits, birds, goat, fish</td>
</tr>
<tr>
<td>CD10</td>
<td>Leonburger</td>
<td>Male</td>
<td>6</td>
<td>Cat</td>
<td>Dogs and cats</td>
</tr>
</tbody>
</table>

* @ baseline: Mobility Dog placement pending
** @ 9 months: first Mobility Dog retired and second placed October 2013
*** @ 6 months: deceased

Mean 4.6

Mean 6.1
Figure 5.1. Canine participants
5.1.1 WHOQOL-BREF & PD Module

The WHOQOL-BREF & PD Module questionnaires were scored as per the manuals (WHO, 1996, p. 12; WHO, 2011, Appendix F). Tables 5.7 and 5.8 summarise the baseline and 12 month QOL and PD Module data respectively. Raw scores were transformed to comparable 1-100 scores (WHO, 1996, p. 13; WHO, 2011, p. 17) across four QOL domains – physical, psychological, social and environmental – and three facets of disability: discrimination, autonomy and inclusion. The WHO means – derived from cross-cultural validation with a Field Trial sample – are shown at the top of each table. This Field Trial sample (N=2,614) spanned 15 different WHOQOL centres around the world and: “contained a wide range of physical disabilities ... but the major disorders included Parkinson’s Disease (16.0%), Multiple Sclerosis (6.6%), Visual Impairment (5.9%), Hearing Impairment (3.8%), and Stroke (3.0%)” (WHO, 2011, p. 19).

While my small sample does not permit a statistical analysis, this would of course be part of a future large-scale study. Here, I have shaded cells with poorer scores relative to Field Trial means in order to compare my participants at a quick glance. In general the MDG displayed higher QOL scores than the CDG at both baseline and 12 months, particularly on the environmental domain which includes items linked to an individual’s financial situation: enough money to meet needs; satisfaction with both living conditions and transport; and opportunities for leisure activities. Given the greater financial commitment associated with Mobility Dogs – funding for team training costs, suitable home environment and ongoing maintenance costs for medium to large breeds – it is unsurprising that the MDG scored more highly on this domain. I discuss selected individual results in the context of feasibility (6.1.2.3) to illustrate how triangulation with qualitative data enhanced interpretation of shifts in scores over the year.
### Table 5.7

**Summary of WHOQOL-BREF scores at baseline and 12 months**

<table>
<thead>
<tr>
<th>Domains</th>
<th>Overall QoL</th>
<th>Overall Health</th>
<th>Physical</th>
<th>Psychological</th>
<th>Social</th>
<th>Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score Range</td>
<td>1-5</td>
<td>1-5</td>
<td>1-100</td>
<td>1-100</td>
<td>1-100</td>
<td>1-100</td>
</tr>
<tr>
<td>Mean*</td>
<td>3.0</td>
<td>2.7</td>
<td>50</td>
<td>56</td>
<td>56</td>
<td>56</td>
</tr>
<tr>
<td>Time (Months)</td>
<td>0</td>
<td>12</td>
<td>0</td>
<td>12</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>Participants With:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mobility Dogs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MD1</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>69</td>
<td>69</td>
</tr>
<tr>
<td>MD2</td>
<td>5</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>75</td>
<td>69</td>
</tr>
<tr>
<td>MD3</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>69</td>
<td>63</td>
</tr>
<tr>
<td>MD4</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>56</td>
<td>56</td>
</tr>
<tr>
<td>MD5</td>
<td>4</td>
<td>Missing</td>
<td>2</td>
<td>Missing</td>
<td>44</td>
<td>Missing</td>
</tr>
<tr>
<td>MD6</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>25</td>
<td>38</td>
</tr>
<tr>
<td>MD7</td>
<td>4</td>
<td>Missing</td>
<td>4</td>
<td>Missing</td>
<td>56</td>
<td>Missing</td>
</tr>
<tr>
<td>Companion Dogs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CD1</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>44</td>
<td>50</td>
</tr>
<tr>
<td>CD2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>6</td>
<td>38</td>
</tr>
<tr>
<td>CD3</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>25</td>
<td>38</td>
</tr>
<tr>
<td>CD4</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>56</td>
<td>44</td>
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<tr>
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<td>4</td>
<td>75</td>
<td>75</td>
</tr>
<tr>
<td>CD6</td>
<td>3</td>
<td>Omitted</td>
<td>4</td>
<td>4</td>
<td>44</td>
<td>56</td>
</tr>
<tr>
<td>CD7</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>63</td>
<td>50</td>
</tr>
<tr>
<td>CD8</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>63</td>
<td>31</td>
</tr>
<tr>
<td>CD9</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>31</td>
<td>38</td>
</tr>
<tr>
<td>CD10</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>69</td>
<td>75</td>
</tr>
</tbody>
</table>

*Field Trial sample PD group means (WHO, 2011). Shaded cells < Field Trial means.
Table 5.8
Summary of PD Module scores at baseline and 12 months

<table>
<thead>
<tr>
<th>Facet 1</th>
<th>Facet 2</th>
<th>Facet 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Impact</td>
<td>Module Total</td>
<td>Discrimination</td>
</tr>
<tr>
<td>Score Range</td>
<td>1-5</td>
<td>0-100</td>
</tr>
<tr>
<td>Not at all-Totally</td>
<td>Low QOL-High QOL</td>
<td>High discrimination-Low discrimination</td>
</tr>
<tr>
<td>Mean*</td>
<td>3.4</td>
<td>64</td>
</tr>
</tbody>
</table>

Time (Months)
- 0
- 12

Participants With:

Mobility Dogs
- MD1 2 4 77 79 83 83 75 83 76 76
- MD2 2 2 85 85 83 75 91 91 84 88
- MD3 3 3 75 77 75 83 75 75 76 76
- MD4 4 4 52 60 42 75 50 50 59 59
- MD5 4 Missing 71 Missing 58 Missing 75 Missing 76 Missing
- MD6 5 4 77 77 75 91 91 100 71 59
- MD7 2 Missing 90 Missing 91 Missing 91 Missing 92 Missing

Companion Dogs
- CD1 2 3 48 63 58 42 66 66 34 63
- CD2 5 4 0 23 0 25 0 33 0 17
- CD3 5 5 39 52 25 17 42 66 42 63
- CD4 2 3 79 60 66 66 75 66 84 55
- CD5 3 3 79 79 58 66 91 100 88 76
- CD6 4 4 79 63 100 58 75 91 71 38
- CD7 3 3 71 71 66 91 75 58 71 67
- CD8 3 4 64 58 50 33 66 66 67 71
- CD9 5 5 39 46 58 58 50 58 21 34
- CD10 2 2 79 79 66 75 91 83 76 80

*Field Trial sample PD group means (WHO, 2011). Shaded cells < Field Trial means (Exception: greater overall impact of disability is indicated by scores > Field Trial means).
5.1.2 Photovoice content

The content of participants’ commentaries on their ‘living with my dog’ photographs was coded as part of the thematic analysis. However, I also compared the visual content (subjects, location and activity) of the photographs (Table 5.9) to see in what different ways, if any, companion dogs and Mobility Dogs were photographed. I acknowledge that this is a crude and cursory assessment: some people purposively chose not to include photographs of themselves, and others did not have this opportunity. Several participants with Mobility Dogs commented that it was difficult to capture photographs of their dogs actually executing tasks. I make the following general comments based on this summary table:

More CDG than MDG photographs (12% and 1% respectively) showed dogs sitting on participants’ laps, illustrating a key benefit of small dogs; only Mobility Dogs were photographed fetching and holding items (13% of MDG photographs) reflecting their specialised training to assist with everyday tasks; and, consistent with public access rights, Mobility Dogs were photographed in a wider range of localities than were companion dogs including malls, cafes, places of work and study and inside an airline cabin.

Table 5.9
Summary of main content of photographs

<table>
<thead>
<tr>
<th></th>
<th>Participants (n=14)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mobility Dogs (n=5) (139 photos)</td>
</tr>
<tr>
<td><strong>Subject/s</strong></td>
<td>%</td>
</tr>
<tr>
<td>Dog/s only</td>
<td>43</td>
</tr>
<tr>
<td>Dog/s + participant (including head)</td>
<td>32</td>
</tr>
<tr>
<td>Dog/s + part participant (excluding head)</td>
<td>8</td>
</tr>
<tr>
<td>Dog + other companion animals</td>
<td>2</td>
</tr>
<tr>
<td>Dog + other peoples’ ‘dogs’</td>
<td>15</td>
</tr>
<tr>
<td>Mobility Dogs’ jacket on</td>
<td>22</td>
</tr>
<tr>
<td><strong>Locations</strong></td>
<td></td>
</tr>
<tr>
<td>Home (inside)</td>
<td>32</td>
</tr>
<tr>
<td>Home (outside)</td>
<td>17</td>
</tr>
<tr>
<td>Park/reserve/beach</td>
<td>25</td>
</tr>
<tr>
<td>Town/mall</td>
<td>5</td>
</tr>
<tr>
<td>Hotel</td>
<td>4</td>
</tr>
<tr>
<td>Work/university</td>
<td>3</td>
</tr>
<tr>
<td>Cafe/restaurant</td>
<td>3</td>
</tr>
<tr>
<td>Riding for the Disabled</td>
<td>3</td>
</tr>
<tr>
<td>Plane</td>
<td>1</td>
</tr>
<tr>
<td>Car</td>
<td>1</td>
</tr>
<tr>
<td>Hospital</td>
<td>1</td>
</tr>
<tr>
<td>Vet</td>
<td>-</td>
</tr>
<tr>
<td>Exercise – off leash</td>
<td>19</td>
</tr>
<tr>
<td>Exercise – on leash</td>
<td>7</td>
</tr>
<tr>
<td>Playing (with toy, ball, hose)</td>
<td>8</td>
</tr>
<tr>
<td>Sitting on participant’s lap</td>
<td>1</td>
</tr>
<tr>
<td>Lying with participant on bed/sofa</td>
<td>5</td>
</tr>
<tr>
<td>Fetching/holding items</td>
<td>13</td>
</tr>
<tr>
<td>Lying down while participant dines</td>
<td>5</td>
</tr>
<tr>
<td>Eating dog food</td>
<td>3</td>
</tr>
</tbody>
</table>
Table 5.9 Continued

<table>
<thead>
<tr>
<th>Participants (n=14)</th>
<th>Mobility Dogs (n=5) (139 photos)</th>
<th>Companion Dogs (n=9) (224 photos)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waiting by door</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Guarding</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Shaking/touching ‘hands’</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>Wearing pyjamas</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Sleeping</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Under blanket/duvet</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Showering</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Towelling/drying off</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Travelling</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Swimming/playing in water</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>

5.2 Living with movement disorders and the roles of dogs

5.2.1 About this section

In this section, supporting verbatim data are referenced to individual participants using the MD and CD notation (5.1). Dogs’ names are substituted with [MD] or [CD] placeholders. Similarly, other peoples’ names are de-identified and replaced with their relationship to the participant: for example, [trainer]. All participants gave consent to use their photographs as part of this thesis. Picasa 3 software was used to crop and adjust light in photographs, and Paint.NET software to pixelate human faces.

Extended excerpts from four summary narratives (partitioned from the main text by a border) are interspersed in my discussion of themes. It is my view that these voices speak compellingly to the impact of dogs on QOL in people with movement disorders and – in lieu of attaching these narratives as an appendix – dipping in and out of these personal stories more fully immerses the reader in participants’ lives. The strength of these narratives is that they develop over time; they illustrate the benefits and challenges of dogs, and that there is no simple formula to calculate the overall effect of a dog on an individual’s QOL. The narratives were selected on the basis of a significant change in these participants’ relationships with dogs over the course of the study. Namely: CD1 (dog died); CD6 (moved to residential care without dog); MD1 (new Mobility Dog placement with no past experience of dogs; first dog trained to assist a person with Parkinson’s); and MD2 (first Mobility Dog recipient to retire a dog and transition to a second). Occasional contributions from partners are italicised.

5.2.2 Living with movement disorders

The main focus of my thematic analysis was on the roles of dogs in the lives of people with movement disorders. However, these roles are inextricably linked to the themes of living with chronic conditions and/or physical disability more generally. Overall a sense of loss was prevalent:

> Everybody has to come to their own conclusions and their own peace. It takes you a while to work out the best way to manage certain physical things: the best way to prevent pressure sores or bladder infections. But as far as life itself, everybody brings their own issues and everybody has their own loss in different ways. I’ve had some people say that it didn’t bother them that they ended up with quadriplegia and I think they mustn’t have hoped for much in life ‘cause I lost a helluva lot, and it’s sad. You’ve got to find something in which you can contribute and feel useful, and feel like you’re achieving. I found that really hard because I was just in so much pain that I was struggling myself … and you get a lot of alienation from the community (CD3).
Loss was expressed in three interrelated areas: physical function (including mobility, energy, strength, balance, fine motor control and speech); social support and connectedness (including partners, friends, and opportunities to socialise and participate in leisure activities); self-efficacy (including occupational roles – especially paid employment – responsibility, control, purpose and future opportunities).

Participants expressed feelings – in no particular order – of: vulnerability, insecurity, anxiety, uncertainty, depression, disappointment, being conspicuous, being judged (particularly the perception that cognitive function is impaired in tandem with physical impairment), isolation, loneliness, invisibility, alienation, apathy, boredom, worthlessness, dependency, struggle and frustration. These feelings collectively echo Charmaz (1983) who addressed the loss of self in people with chronic illness (as a result of: restricted lives, social isolation, being discredited and burdening others). These people “observe their former self-images crumbling away without the simultaneous development of equally valued new ones” (p. 168).

Furthermore, over time, chronically ill people may be forced to adapt repeatedly to new losses (Charmaz, 1995; Livneh, 2012). MD3, for example, shared her reluctance to acquire a power chair as she perceived it made her appear less capable:

You feel a lot more profoundly disabled; there’s a difference between self-propelling under your own steam and being power-driven. You feel like a complete failure as a human being, as someone who’s really valued. There’s a disability hierarchy going on; it’s in every way implied but never declared, the notion that the more self-driven you are, the more in command you are. People aren’t doing it in a mean-spirited way but there’s a hierarchy built around say, the Wheelblacks [national wheelchair rugby team]: really fit, really athletic, really soldiering on. New Zealand is driven by a pull yourself up by your bootstraps mentality.

With the passing of time this perspective was replaced by a practical acceptance:

But I’ve realised there’s a level of flexibility around both. It’s not like now I’m in a power chair, it absolutely defines me. I still walk – like I weight bear – so it’s not like I’ve lost the ability completely, and I use the manual chair to keep up my fitness. I have a home-based physio programme to keep me fit and strong. The reality is if you do use the power chair you don’t end up exhausted, and you don’t look like such a drongo because your friends are 80 metres in front of you. It’s much easier to keep up; there’s only so slow people will go. Independence is a constant balancing act, a swinging pendulum: nobody gets a perfect balance all the time.

Although I purposively recruited people with a range of movement disorders and experiences of living with dogs, I was uncertain what additional characteristics and insights they might bring to the study. Some exhibited a steely determination to counter a perception of disabled people as idle and reliant, placing a high value on independence:

People often have that assumption that if you have a disability, you’re at home on the benefit doing nothing. There are people like that but not me; it’s maintaining independence and having the tools to do that (MD2).

You’re very receptive of care but the more expectations that can be placed on you, the better. Rather than being excused from something because you have a disability, they should look at ways to make you do stuff. For somebody with my level of disability it’s extremely unusual to be at university (MD3).

I’m so glad I decided to go to uni. Because I’m in a wheelchair people expect me to live off my parents and sit at home and rot. I’m going to do something with my life. I want to pay rent. I want to do things that ‘normal’ people do (MD7).

The biggest thing to impact my rehabilitation has been going back to work. I never realised how important work was until I didn’t work for a year. I say to people the rush I got from getting a job – feeling like you’re contributing – that’s the main thing. You have an accident like that and you
feel so much ‘the other’. I remember being in my first traffic jam in the morning and thinking “I’m just the same as everybody else, I’m going to work.” And that was huge (CD10).

Of course dogs are just one strategy to enhance QOL in addition to conventional medications and therapies. CD8 was relentless in her quest to find treatments to stall, if not cure, MS. She had stepped outside traditional medicine to embrace alternative therapies including a controversial stem cell transplant:

I’m just one great big walking supplement! When you’ve got something like MS, you try anything; at least I do. I find a lot of people are quite happy, “this is my lot in life, I’ll just cope with it.” It annoys me that they’re not willing to do something to make their quality of life better ... I went to [holistic medical practitioner] and she put me on this stuff; it cost me $700 to walk out the door ... I started having vitamin C infusions ... I’ve been taking bovine colostrum powder for a couple of years ... I had a stem cell transplant and I think my speech is a lot better. I haven’t told my GP. I told the MS field officer and she said “we don’t really condone that sort of thing” ... I’ve had my amalgams replaced. I’m not leaving a rock unt turned ... now I’m on a three week diet ... If somebody said the cure for MS is to run around Lake Taupo carrying a rosemary bush, I would do it! I feel I am improving my quality of life and I think it’s paid off seeing other people: I’m still mobile, I’m driving, I’m pretty sharp. It’s my mission to find something that helps. It’s not cheap all this; it’s horrendous, but I wouldn’t want to not take it.

And not all strategies to enhance well-being are necessarily health promoting. CD7 – born with cerebral palsy and later diagnosed with MS – informed me within minutes of our meeting that he was an alcoholic. He ascribed this condition mainly to his loss of ability to work:

I’m a qualified mechanic by trade. I couldn’t get a certificate to go back in the workshop; I was just a walking accident. And that’s when the drinking started. Well not started, but it got worse and worse and worse because I had nothing to do during the day. That was one of my biggest problems, boredom ... All my mates work ... It’s me that’s done it so I’ve got no one else to blame, but I’ve enjoyed it.

This overview of living with mobility impairments flags the importance of time (that disability as a journey is not a fixed state) and maintaining independence. I now turn to the roles that dogs play in the lives of people with movement disorders.

5.2.3 The roles of dogs

My analysis identified eight main themes describing the roles of dogs in the lives of people with movement disorders: companion; protector; caregiver; icebreaker; empowerer; motivator; entertainer; and tool (assistive technology). Similar themes – albeit with different names – have been described and discussed by others including: Blouin (2013), Brooks et al. (2013), Camp (2001), Enders-Slegers (2000) and Maharaj and Haney (2014). Figure 5.2 presents a diagrammatic representation. My intent is to illustrate that the eight roles may variously impact components that collectively contribute to an individual’s self-perceived QOL. The themes are not mutually exclusive but rather are complex and interrelated, as depicted by the hub in the centre of the diagram which connects themes with each other. For example: a dog as a motivator to exercise may also serve as a companion and protector out walking, and as an icebreaker for conversations with other dog-walkers. Challenges associated with dogs may impact the ability of a dog to fulfil some roles. For example: a dog aggressive towards other dogs or people is less likely to serve as an icebreaker for pleasurable social interactions. Challenges include difficulties with: control of dogs due to lack of training and/or undesirable behaviours; managing care (exercise, grooming and cleaning up); meeting financial demands (food, equipment and veterinary expenses); and loss of a dog due to death, retirement (of a service dog) or a change in living circumstances that dictates relinquishing a dog (hospitalisation or move to residential care). These
challenges may be greater for people with movement disorders but, on balance, dogs enrich overall QOL. I contend that the relative importance of each theme in influencing an individual’s QOL is variable: dogs fulfil different roles, for different people, across different environments. I also suggest that these roles can be conceptualised as creating juncture or disjuncture (DePoy & Gilson, 2011) between disabled bodies and environments: the more juncture an individual experiences the more enhanced their QOL and, conversely, disjuncture may negatively impact QOL. For example: a dog that catalyses conversation increases juncture in the social environment; a Mobility Dog that pushes a pedestrian button increases juncture in the built physical environment whereas a Mobility Dog that cannot fit in an elevator at the same time as a wheelchair increases disjuncture. I have provisionally shaded those roles where Mobility Dogs appear to have an edge over companion dogs: the role of tool/assistive technology is shaded most heavily because this theme most clearly differentiates the two categories of dog.

![Diagram of Quality of Life and Roles of Dogs](image)

*Figure 5.2. Conceptualisation of the roles of dogs.*

Keeping my research question to the fore, I interrogate each of these eight themes for differences and similarities between companion dogs and Mobility Dogs.
5.2.3.1 Companion

One that: accompanies another; keeps company with another; that is closely connected with something similar; employed to live and serve another (Merriam-Webster, 2014).

“It’s a companion ... they mean so many things in so many situations, but they are that one constant; they are there for you the whole time” (MD2).

The role of a dog as ‘man’s best friend’ is long established (2.1) with the term ‘companion dog’ now preferred to ‘pet dog’ (1.3.2). For many, living with a canine companion stemmed from childhood: “Our family has a long history of dogs” (MD3); “We’re a dog family: we’ve always had a dog” (CD3). Dogs for some become an integral part of what makes a house feel like a home. In lives disrupted by movement disorders the ongoing companionship of a dog may contribute to a feeling of stability: a constant amidst upheaval in other areas of life. Unsurprisingly, all participants spoke of their dogs as companions, but there was variation in how these relationships were reported ranging from dogs described as friends quite distinct from human counterparts, “he’s a dog; he’s not my boy and he’s not my best friend” (CD10), to dogs accorded near human status. The latter, were referred to as babies or children, particularly by women with small dogs: “Since my daughter left home, he’s now become my baby” (CD1); “[Cat] and [CD] are my kids, ‘cause I don’t have kids” (CD8). These relationships tended to be characterised by more dialogue directed specifically to dogs during our conversations: “He has a red raincoat. Everyone laughs but “you like it don’t you? It keeps you dry”” (CD1); baby talk: “Trying to hoppy uppa with Mummels” (CD5); special menus: “He only eats chicken and bacon ‘cause he doesn’t think he’s a dog. I buy two little drumsticks and I cook those for him every day in the oven. He will eat vegetables, except peas” (CD1); and references to items of clothing (Figure 5.3).

I’m not really into dressing my dog but she actually gets really cold in winter for an inside long-haired dog; she’ll often sit there and shiver. She’s got two fleecies and a knitted pair. She’s clever: you say, “do you want your jimmel jammels?” and she gets this sort of look in her. Then she’s got her raincoat which she hates. I don’t think she likes the crinkle of it (CD3).

**Figure 5.3. Dog in pyjamas.**

These participants’ more anthropomorphic relationships with their companion dogs resonated with populations researched overseas (Blouin, 2013; S. P. Cohen, 2002; Serpell, 2003).

By international standards cat ownership in New Zealand is high (1.3.2.1). Seven participants were also living with at least one cat; a further three had lived with cats in the past. Relative to cats as companion animals, dogs were generally ascribed traits of close human relationships – physical and emotional closeness and reciprocity – whereas cats were perceived to be more independent, aloof and less giving:

Cats are very, very different from dogs. Dogs become much more personal friends. Cats can be very distant; cats use you; dogs love you. Their nature is very solitary and as many people say “you’ve got a cat, you’re a servant” whereas it’s the opposite with a dog. My cat wasn’t as intimate or involved with me as the dog (MD5).
I love cats for the reason that they’re more independent, but dogs give you that kind of closeness, that real buzz of being loved by something. You feel like you interact more with dogs almost on an emotional level (CD4).

Some participants compared the behaviour of their dogs favourably to that of cats, particularly in terms of physical closeness: “[MD] will perfectly curl up on my leg like she’s a cat, curl up as tightly as she can and rest her head on my shoulders” (MD3); “In terms of quality of life it’s just like having a super affectionate cat. It’s really nice to get this dog that just is so affectionate, so much part of the family” (CD5). MD1, on the cusp of placement with a Mobility Dog, offered an interesting perspective as he had a history of countless cats, but no dogs:

I’ve had a cat in the household for a good deal of my life. I’ve never had a dog, ever, so it’s a complete learning experience … with cats they’re sort of independent. For example: just sitting here, the cat’s not here, the cat could wander in and wander away, say hello and sort of wander off. From my observation of other people with dogs, they stick with you more than cats. I’d like my independence a bit; I wouldn’t like him with me all the time.

Although MD1 experienced difficulty adjusting to the proximity seeking behaviour of his dog, he nonetheless described his dog as “company that I wouldn’t have otherwise, and he’s good company.” The proximity seeking behaviour of dogs assures their companion status, which was also interpreted as loyalty: “He’s very loyal; when I walk up at the dog park he always walks right beside me. I love that. I like that companionship (CD10); “He won’t leave my side. He just sits there. It makes me feel good. He’s the most loyallest dog” (CD1); “He followed me like a lamb about the house” (MD5); “He wants to be particularly close to me” (MD4). A number of photographs (Figure 5.4) featured dogs’ proximity seeking behaviours and strategic positioning to monitor household comings and goings:

That’s him when I say, “we’re going to hang the washing out.” Basically wherever I go he comes too. If he’s sleeping in one of those chairs, then I go up the hall, he goes up the hall with me. If I go into the bathroom, he goes under the bed and waits until I’m out of the bathroom, then he follows me down the hall again. He’s like my little shadow. All he wants to do is hang out with you (CD5).

There they are lying in the sun … That’s my daughter’s room [outside] so if she lies there she can keep an eye on us all (CD4).
Against that couch is a place he likes. We’re probably sitting there watching TV ... You have to go past him to get out (MD1).

It’s another favourite place. That’s a typical pose on a sunny day in that corner ... He can see us inside, keep tabs on what’s going on (MD1).

Figure 5.4. Proximity seeking.

Companionship was also described in terms of love and affection:

Seriously, if someone else at my age had a stroke the first thing I would say is make sure you get a dog; even if you think you can’t cope with it at the moment, get someone to help ... you’ll get so much love and attention back from it; it’s definitely well worth having (CD1).

She just loves people, just wholeheartedly loves everybody and wants to lick them and love them and be loved by them and have their approval (CD4).

I fell in love with him the first time I saw him ... I just felt we had this connection (MD7).

She loves doing that and it’s a good companion shot. Her paws are just so fascinating; she looks like a spider monkey. They do look like fingers. Really emphasises the notion of companion (MD3).

Figure 5.5. Holding ‘hands’.

Some participants expressed satisfaction that their dogs shared similar traits to themselves which reinforced a feeling of companionship: “I'm big and fat and [CD] is small and fat, so we actually suit each other. It's like we're made to match” (CD1); “[CD's] a little bit like me: tired, knackered” (CD6); “I just plod along with [CD]; two old farts” (CD9). Such perceived self-similarity between people and companion
animals has been linked to enhanced health and well-being (Budge et al., 1998) which suggests that compatible human-canine relationships increase feelings of happiness, reduce stress and make people feel more positive about their lives. And, consistent with human relationships, the death of CD1’s dog (5.2.3.3) triggered a grief response akin to the loss of a close friend. Other participants also spoke of heartbreak and feelings of emptiness in the wake of a past dog’s death: “It’s awful, like there’s nothing there. It’s like when a person dies and you miss them. You go home and there’s no panting or running up and down the stairs or barking” (CD8); “My house felt so empty. It was just horrible. I only lasted three days and then I went out and bought the first puppy that I saw” (CD3). Anticipating retirement of her service dog, MD2 (5.2.3.6) likewise anticipated a grief response. She felt much happier on deciding to keep her first Mobility Dog in addition to her new dog. This finding supports the work of Nicholson et al. (1995) which recommended that guide dog organisations pay increased attention to providing emotional support when retirement beckons. In the case of CD6 (5.2.3.9) who moved to residential care during the study it was poignant that he missed the companionship of his dog more than he missed his wife. As his Parkinson’s progressed his personal relationships disintegrated: “He’s my personal friend which I don’t have many of because I’m so rude and so nasty.”

Consistent with Walsh (2009), Mobility Dogs were less likely to be referred to as pets or companion animals: rather, “partners”, “working together.” This description is closely linked to the role of Mobility Dogs as a tool or assistive technology (5.2.3.11) and embedded in the MADT process which: matches dogs to applicants’ personalities and physical needs; focuses on the importance of establishing a strong bond; and demands close attention to the maintenance of training. Although some Mobility Dog recipients also positioned their dogs as children – “Basically she’s a hyperactive child” (MD3); “They’re part of the family; we talk about mum and dad, nanas, uncles and aunties” (MD2) – the overall perspective was less prone to the dog as a dependent and anthropomorphic description: “The reality is that Mobility Dogs are first and foremost dogs. They’ve got all the dogs’ instincts; they are dogs who are highly trained” (MD3). Having public access rights to enter supermarkets and restaurants calls for impeccable behaviour around food. Accordingly, Mobility Dogs eat dog food which reinforces the fact that “these dogs are dogs” (MD2). Public access rights also mean a Mobility Dog is likely to spend more time than a companion dog in the company of its human partner: “It’s a different relationship because she goes so many places: you don’t see them as such a tie” (MD2). Both categories of dog were likely to be included – particularly by women – in festive events with family and friends: for example, Christmas and birthday celebrations as depicted in Figure 5.6.

[MD] only gets one gift a year from us; a lot of our friends absolutely adore her. Last year she got a haul and a half of presents; she had 13 new toys. It was just ridiculous. She got more Christmas presents than I did! (MD2).

He does celebrate his birthday, “don’t you?” His birthday’s on New Year’s Eve which is great because we can always remember it ... At Christmas, he’d probably have a slice of ham ... and he’d have presents under the tree (CD5).
Christmas wrapping

... and decorating

Christmas bone

Canine birthday cake

Dogs celebrating birthdays

Wearing a bandana for a themed party

Figure 5.6. Dogs and celebrations.
One canine characteristic that differentiated participants was preference for a particular size of dog. Participants used terms like “big dog person” (CD3), “tiny dog person” (CD4). I raise the issue of size of dog because small dogs appeared to offer a specific type of companionship. During interactions I observed several small dogs perched on participants’ laps for extended periods: one for an entire interview. These dogs were intermittently stroked as people spoke:

I see [person with a Mobility Dog] out with this enormous dog that’s a size of a small horse and that wouldn’t appeal to me at all. I like a little dog; I like the fact that he jumps up and sits on my knee. You don’t have that kind of interaction with a great big dog ... He won’t hop down unless I ask him to. He would just stay like this all day (CD5).

Several participants with smaller dogs revealed they were, at heart, ‘big dog people’: “She’s not my dream sort of a dog; I’m really a big dog person” (CD3). However, practically, smaller dogs required less:

- Exercise: “A good little house dog, doesn’t need much exercise” (CD8);
- Personal care: “It’s much easier to pick up and clean up after a small dog” (CD1);
- Training: “Being a little dog we could get away with it” (MD2 speaking of a former companion dog); and
- Expense: “We’re glad you’re little ‘cause otherwise it [food] would cost a fortune” (CD3).

Smaller dogs were also perceived as better value because they live longer: “Why have a big dog? They only last about eight years” (CD8). Ultimately, the choice of a particular size of dog may also hinge on the main roles the dog is expected to fulfil in an individual’s life. An example of a mismatch between size of dog and role was shared by CD1 whose daughter surprised her with a puppy following the death of her dog:

My daughter got me a puppy for Christmas but we ended up giving her away. She was a little tiny toy dog ... I couldn’t even walk her up here, I had to carry her. It was too far for her. I didn’t feel right having a handbag dog! (CD1).

For people with restricted mobility a small dog on a lap may simply be more accessible. CD2 retained movement in just one hand: “She just jumps up. It's a good perch here for her; she can see everything ... I tell her everything.” The importance of ‘lap dogs’ for some participants was reflected in content analysis of their photographs (Table 5.9; Figure 5.7). This clearly rules out consideration of a Mobility Dog – presently all medium to large breeds – for some people. Unequivocally, all dogs in my study, irrespective of whether they were companion dogs or service dogs, were regarded as companions and part of the family. Women tended to describe more anthropomorphic relationships with their dogs, and people with Mobility Dogs were more likely to describe their dogs as partners in a working relationship.
Figure 5.7. ‘Lap dogs’.
5.2.3.2 Protector

A person or thing that protects someone or something: guardian (Merriam-Webster, 2014).

“One of the main aspects of a dog is that it can provide security” (CD9).

Together with the role of companion, the dog as a protector is historically entrenched. Participants reported feeling safer, more secure and less vulnerable in the company of dogs. About the home, dogs were perceived to be ever vigilant: “I don’t need a doorbell, always know when I have visitors” (MD2); “If [CD] was to set off barking at night [neighbour] gets up, takes a look” (CD9); “He’s pretty alert as to what’s going on even when he’s asleep or resting” (MD1). Having a dog in the house for protection was particularly salient for people living on their own:

He’s up and barking at that time of the morning to let me know that there’s someone there. Because I’m by myself, it gives me a real good sense of security (CD1).

There’s something really lovely about having a dog to come home to. But I don’t think that’s necessarily having an accident or disability thing ... for anyone living on their own; to have the security of a big dog and the companionship (CD10).

It would give me a sense of security. I don’t expect it to be a guard dog but it could bark and make a noise. I think that’s very good when you’re on your own (MD5, waiting for a Mobility Dog).

A Mobility Dog is not an option for people who seek a guard dog: signs of aggression in service dog puppies are grounds for immediate exit from the programme. Just one companion dog – a Rottweiler ridgeback cross – was described principally in this way: “She’s a good guard dog for Mum when I’m not here; Mum certainly finds out if there’s someone here” (CD7; Figure 5.8). Most of this dog’s day was spent confined on the upstairs deck of the property because “we’re supposed to have a fully fenced section; she’s not supposed to be out” (CD7). During interviews the dog put her paws up on the balustrade and barked vociferously at passers-by. CD7 reported that she had broken a hole through the deck surround one day while barking at neighbours. I felt wary of this dog and would not have entered the property in the absence of the participant.

A smaller dog does not necessarily mean it is less effective in a protector role. CD2 spoke of the overprotective nature of his female Jack Russell which regularly terrorised visitors to the property. Indeed, I found it difficult to gain access; the dog flew from the house like a missile, barking furiously, and
bailed me up at the gate: “She's a good guard dog, keeps the burglars away. Houses get broken into around here but they don't like dogs, especially ones that bark” (CD2). The smallest dog in the study – a Chihuahua – was also highly protective: “He gets antsy about people touching mother’s wheelchair ... If someone came along and tried to attack me, he'd be into them” (CD5). CD1’s Manchester terrier similarly allayed her fear of nocturnal intruders: “I used to be very nervous when [daughter] first went at night time. Every noise that I'd hear, I thought, “oh my gosh, someone’s going to try and break in,” but I don’t have that worry. He makes me feel really really safe” (CD1).

The protector role was magnified in the MDG due to public access rights and the training of specific tasks to increase personal safety. Compared to companion dogs, Mobility Dogs offered a sense of security across a wider range of environments, including situations outside the home – for example in the city – which were otherwise threatening. Mobility Dog recipients recognised that their dogs were not trained to guard per se, but they perceived a dog at their side to be a deterrent to opportunistic theft and/or assault:

I don’t feel as vulnerable. I’m normally quite nervous in the city. I was assaulted many, many years ago in the CBD and I don’t like, even during the day, being in there on my own. But with her I don’t feel that way. I’d like to think that some people might think twice about doing anything (MD2).

I feel a lot safer with him. He’s a very good sentry. There’s lots of things I wouldn’t do which I feel I can do with him because he’s there with me. Going into town in a wheelchair can be very, very scary (MD5).

I never go out at night. I perceive myself to be at risk of having my handbag snatched because people think she can’t run after me. But if I had a dog, that would prove to be a deterrent and I would feel better (MD6, waiting for a Mobility Dog).

Additionally, Mobility Dogs are trained to “speak” (alert bark on command to signal for help) and to fetch a phone for their human partner in the event of an emergency: “When I’m in trouble, I can get her to bark and it will attract Mum’s attention; she has particular kind of bark that indicates attention (MD3); “I said “go get the phone”, and she did. I could ring for help” (MD2). Part of the feeling of safety afforded by a Mobility Dog is simply the presence of a dog which renders a person walking with a stick or using a wheelchair more obvious, increasing the envelope of space around them. MD6, living in the central city, anticipated that a Mobility Dog would lessen her vulnerability to being knocked over:

At the moment I am invisible. Nobody pays attention to me unless they either hit me with their suitcase or knock me over. I was knocked over by a little boy who came running round the corner: hit me in the solar plexus, I fell onto the window and gradually slid down. The little boy’s mother came round and said, “oh what have you done? You could have hurt yourself.” And I thought don’t worry about me, I’ll just get up on my own. They just walked off. I was incredulous (MD6).

Following MD6’s first trial with a Mobility Dog, there was no question that the dog would help her in these situations:

I walk up and down my street a million times, nobody sees me. As soon as the dog got out of the van people started coming up. All the way through the walk people were asking, “what sort of dog is this?” I just thought here we go, let that be a salutary lesson to me: you go from being persona non grata and invisible to woah everybody look at me. I’m going to go from zero to hero overnight.

MD1 (with Parkinson’s disease) also reported that he felt he had more room to manoeuvre when walking with his Mobility Dog in crowded spaces:
I went to the rugby on Friday night. I didn’t take him because the seating was too tight. I had to use a stick and I was not the best. There were a lot of people milling around and I find that situation very difficult; people are walking here, there and everywhere and I have to wait until I can walk through that sort of area. It would have been easy with [MD].

A dog’s barking is unquestionably a bonus in the role of protector, but incessant and uncontrolled barking was equally a source of frustration, especially for people with companion dogs: “She’s a bit of a small, yappy dog especially in the evenings. She thinks she’s the sheriff of [road] and any noise within about four houses down, any car door slams” (CD3); “He can be a bit of a pain because he’s wow, wow, wow all the time and I have to block off that [door] so he can’t run out onto the deck and bark all the time” (CD8). MD2 reported troublesome barking in her first Mobility Dog (German shepherd), which interfered with her ability to employ the speak command. Although annoyed by this behaviour, she recognised that it was partly a breed characteristic but she was fervently hoping that her next Mobility Dog would not emulate this behaviour.

5.2.3.3 Summary narrative CD1
The dog in my first extended narrative, below, fulfilled many roles including those of “substitute child” and protector. Importantly this narrative highlights the ability of a dog to catalyse recovery following a stroke and to promote exercise adherence. The sudden death of this beloved dog also offered the opportunity to explore the effect of loss on QOL.

**Female, 51, stroke 3 years ago. Manchester terrier, 7 years, died during study.**
My stroke was extremely out of the blue. I was taking [CD] for a walk and I had this terrible pain going up my left arm. I can’t remember anything until I woke up in hospital. A neighbour came out to see what was wrong. [CD] was sitting next to me barking. She rang for the ambulance and took [CD] in. She said “that dog was so loyal; he would not leave your side.” I lost a lot of my basic control over my abilities. I had to learn to walk again. A physio came every day. The main thing was to get my confidence back. We went to the door the first day which was only about twenty steps but for me that was amazing. I was pushing myself because I knew that I had to do it. I wanted to come back and see [CD] and to take him for a walk. On the second Saturday they signed me out for the day. When [CD] saw me he went ballistic. I’ve never seen anything quite so happy; he was so happy to have me back. He was rolling on the ground. “You went absolutely crazy: made Mummy feel good about actually being missed.” When I came home I started off taking him for a walk to the end of the driveway and back ‘cause that was quite a distance then. The next day I said, “we’re walking to the corner of the street” and each day I’d set myself new goals. That’s just the sort of person I am; I push myself all the time ‘cause I try to be quite independent.

When I first was at home full-time I thought I’d get bored, but when you’ve got a dog, you don’t have time to be bored. He’s always sitting up here and he wants to be patted, or I’m taking him for walks and he fills in a lot of my day. If I didn’t have him, I wouldn’t be as happy and settled as I am now because he fills a void. Because I’m by myself, it gives me a real good sense of security. When you’ve got a dog with you, people who won’t normally talk to you, actually talk to you. To me, rather than a dog he’s more like a human and I shower my love and attention on him that I used to give to my daughter. So he’s like a substitute child. People say to me, “you’ve recovered really well from your stroke,” and the first thing I say to them is “that’s thanks to my dog,” and they go, “you mean your baby?” If I didn’t have him I would be completely different person today. I don’t know if I’d even bother going out; I’d probably have grown
into a recluse. An animal is a lifesaver. You’ve got something to care for and you don’t worry about just yourself. I’ve had other dogs but they’ve never been like [CD]. He’s just so loyal. It makes me feel good because the love that I give to him, he gives back to me tenfold. If anything happens to him, when he gets older, that’s it. I’m never having any other animals again. It’s a bit like a baby; if you lose a baby you don’t go out immediately and have another one, thinking this one will replace the one you’ve lost. I’d cut off my hand before I’d give him away. He’s a special dog. Seriously. He can almost see into my mind. He sits here at night, and he’s got his head on my lap, and we’re watching TV. I unburden my whole soul to him and he just sits there and looks at me. I couldn’t say that to another person, they’d think I was crazy, but [CD] listens to it all and that’s so soothing. It’s having him there to pat him; to pat him is just so good. And no matter what I do for him, he’s so grateful. It makes me feel loved.

Two months following [CD’s] death:
It was very sudden. He just wasn’t himself. The vet said, “he’s suffering, he’s in terrible pain; he’s got nerve damage in his neck. I know you love him, but if you really love him you’ll have to put him to sleep.”

It was awful. I didn’t want to take his collar and the vet said, “you should because it’s always something you’ll have to remind you,” and I’m glad he talked me into it. It sits on top of the cabinet and I look at it quite frequently. I’ve got lots of photos; he’ll always be in my memory.

I’ve kept to my routine. It’s not the same though walking ‘cause I used to talk to him. People will think I’m crazy now I talk to myself. I miss taking him for so many walks. The first two weeks, I didn’t think I was going to get through it; every time someone would look at me I would cry. I’ve been quite depressed. I’ve just been up and picked up my week’s medication. I’m on twelve different pills every day. That’s why I won’t stop walking because I think I need to do that.

Lots of people go, “why don’t you get another one?” It’s not like a cup or a plate and you can replace it; he was a living soul. He was more like a companion than a dog. I’ve got this huge void in my life and I need to fill it. The thing that I miss is just having him at home. When I go out, there’s no one there to say goodbye to, and then when I come home, there’s no one there to meet me. I think that’s the hardest bit. And he used to sit on my knee at night and watch TV. I’m so scared to get another one because I’ll always be comparing him. You have to love the dog for itself. When I get a dog, I give my all to it. I will get another one but not just yet. I’m still a bit raw round the edges. I’ll know when I’m ready.

6 months following [CD’s] death and anticipating next dog:
I can actually talk about him now. I rejoice in the memories. He was my rock. I still see people I haven’t seen and they say, “where’s your little friend?” and I can say, “he’s passed, I had to put him to sleep,” quite openly. Whereas when I saw you last I’d be crying my eyes out. After talking to you it made me buck up my ideas; I had to come to terms with what had happened: up to that stage I was in denial. It’s just like a child dying because he was with me 24/7, my constant companion, slept in my bed. If you lost a child you wouldn’t get over it in a week or two would you? I found some websites where you can remember your pets when they’ve passed. I put on some of my memories four to five weeks ago because I felt strong enough. I put “goodbye my best friend.” It was really nice to put it down in words, quite therapeutic. He’s still on my screensaver, on my phone that I carry round with me, and I’ve got pictures of him on Facebook.

I’m ready now. It doesn’t have to look like [CD] but has to have that placid nature; he had that from the word go. I don’t want to get a dog that’s too old and set in his ways. When I get a dog it’s not just a dog,
it's my friend; I expect the dog to sleep on my bed, be brushed and sit on my knee. When I see a dog, I'll know, it will steal my heart. I don't care what the dog looks like, I want a dog with a good heart; it's what's inside that counts.

5.2.3.4 Caregiver

A person who gives help and protection to someone (such as a child, an old person, or someone who is sick) (Merriam-Webster, 2014).

“The tasks that [MD] does are that next level of assistance which buffers between there and needing a caregiver ‘cause I’m not ready for that” (MD2).

My decision to define the role of a dog as a caregiver distinct from companion and protector evolved during the latter stages of my analysis. As the result of living with chronic conditions, a number of conversations with participants reported unsatisfactory experiences with healthcare professionals and allied support service providers, including caregivers. While reading the work of Smythe (2002), The Violence of the Everyday in Healthcare, it struck me that much of what participants said about their dogs – in terms of always being there, of being empathetic, intuitive, understanding, good listeners and non-judgemental – described the qualities of an ideal relationship with a health professional, service provider or informal caregiver. Smythe argued that violence, experienced daily as indifferent or negligent care, goes largely unnoticed and arises when people are not attuned to the needs and moods of those they are caring for:

If a person is feeling vulnerable there is likely to be a hope for care and understanding. However, if a person is feeling strong and independent, then approaches of nurturance may be interpreted as unnecessary interference. Perhaps when we get it wrong, the person experiences a sense of violence ... The challenge is to first attune to the person’s mood, for it may reveal the need (p. 174).

Smythe contended that indifferent or negligent care results largely from being caught in inflexible healthcare systems with institutional demands: “the world of healthcare has been overrun with “machinations.” At every turn there is policy, protocol, evidence-based practice, theories of practice, professional guidelines, codes of ethics, textbooks, and editorial standards” (p. 200). Being mindful of the needs and moods of people takes willingness and time. Often people are too hurried or focused on measurable outputs to take the trouble to care:

It is the paradox of practice, where care becomes harm, even in the recognition that it is care ... It calls to question that one can ever assume to be caring, unless the meaning of what is “caring” is given over to the person being cared for. That means letting go of the assumptions of good intentions and being mindful that only the client knows the goodness of the experience of care (p.183).

I suggest that a key benefit of dogs to people living with chronic conditions is that dogs, insofar as they are able, are perceived to get this “goodness of the experience of care” right. Participants in both groups reported caregiving traits in their dogs, particularly when they were feeling emotionally fragile, physically unwell or both.
I was really, really ill. I had this dreadful flu with horrible aching. [CD] is obviously taking care of Mummels (CD5).

Figure 5.9. Companion dog as caregiver.

Crucially, dogs have abundant time whereas people may not. Dogs as an attending presence – “always there” and “constantly checking” – were described as good listeners; they were credited with intuitive and empathetic responses to participants’ moods, sickness and pain. In the presence of disability and illness, dogs were perceived to be non-judgemental, content to be around you no matter how unpleasant the situation. Tactile and affectionate interaction with dogs, often up on beds (Figure 5.10), was described as comforting and soothing, perhaps reflecting the physiological benefits of dogs on blood pressure, cortisol and oxytocin (2.3). The following examples of caregiving behaviour were shared by members of the CDG:

At night she’ll stand in the doorway and stare at me, to make sure I’m okay. She doesn’t move until I say I’m okay. She’s like a helper almost (CD2).

They like to make sure everything’s okay – constantly sort of check on me – and when the community nurse comes to change my catheter, they have to be in the bedroom to watch because they know it hurts me (CD3).

On bad days she’s my cuddle toy. If I’m really fatigued and having a day in bed she’s on the bed with me all day, doesn’t leave my side. I think it’s a combination of her knowing, but also of her desire to be close to humans ... She’s definitely how I deal with my MS (CD4).

I’m sure he knows that there’s something not right with me because when I go down the stairs, he’s one step behind me (CD8).

He has this thing where he gets up once during the night and he walks round the house, he comes in here and stares at me, then walks off and flops down. It’s almost as if he’s checking on me (CD10).
Figure 5.10. Dogs with ‘bedside manner’.
Mobility Dogs excelled in a caregiving role. Service dogs are ‘sold’ as a tailored intervention for people with physical disability, which perhaps creates the expectation that these dogs, with specialised training, are more intuitive than a companion dog:

I think service animals act differently to pet animals. They’re vaguely prideful and have this attentive thing going on ... No matter how sick you are – they don’t really care if you are on the floor at 6 o’clock in the morning puking your guts out – they’ll still sit with you. Mobility Dogs become moulded to you in a real sense; they have a basic level of training but they will learn to change with your condition. They understand the movement of disability, they develop an additional instinct of disability around a bad day versus a good day; they have a real wheelchair instinct (MD3).

I was down the bottom of the section and, oopsy daisy, I found a slope and I rolled the scooter. But who was right beside me? Who just waited until I had composed myself to upright the scooter and come up to the house? After that incident I noticed, it doesn’t matter where I am outside, he comes out and sits so he’s facing me (MD4).

I’ve got a problem with rolling to my left hand side and I fall out of bed. I didn’t tell him where to go on the bed. He got up, lay on the left hand side, put his head on my shoulder and he stayed there all night. It just seemed to be intuitive with him ... I think he’s good for my blood pressure (MD5).

Several illustrated excerpts (Figure 5.11) from the narrative of MD3, a young woman with cerebral palsy partnered with a Mobility Dog since 2008, articulate the role of her dog as a caregiver.

I was sick with a chest infection. There’s only so much your friends want to know about the fact that you’re projectile vomiting bloody mucus ... but dogs are quite happy to be around. When you’re dozing off and you can hear or feel their heartbeat, that’s quite soothing. People are often very wary of touching people in wheelchairs – they don’t want to hurt the m or do the wrong thing – but it’s nice because dogs don’t have any sense of boundaries: like she uses my wheelchair as a scratching post, I’m just part of her furniture, she’ll clamber all over me.

That was about 18 minutes before I was taken into hospital. I developed colic. She’s a really good companion animal when I’m sick. I know it’s a terrible sin to have your dog on your bed, but she’ll curl up and rest her forehead on my hip. [MD] doesn’t like it when I’m in pain so she will bury into me. I think it’s an instinctive desire to alleviate things. She loves physical contact which is great when you’re suffering and you feel like crap, and I like it too; the sense of companionship and the solid weight.
As I get older, it’s harder for my lungs to recover and I get successive illnesses. It’s very difficult to be working at sub-capacity but you have to do it. That’s where service dogs come into their own because they get that; they have this extra instinct for when they can lark around and when they have to step up their game. You can gird your loins, but you can only gird your loins for so long. She really does that well because she’s a very, very intelligent dog and she’s quite empathetic by nature. She’ll shadow me on my off days; she’ll sit at my side or, when I have to lie down, curl up on bed with me.

Figure 5.11. Mobility Dog as caregiver.

The caregiving qualities of a dog may also relieve burden from other family members who enjoy greater peace of mind leaving a person in the company of a dog, than alone:

[Daughter] said that she couldn’t leave home if she thought she was going to leave me here alone, so that’s why she went out and bought [CD] for me. She actually feels content about me being here by myself now, because she sees how [CD] looks after me (CD1).

Again, these sentiments were more prevalent in the MDG because of the skills – particularly fetching a phone – trained onto Mobility Dogs:

Mum doesn’t hesitate to leave me at home at all now. Before it was like, “let’s get you up and then we’ll go out” but they don’t mind if I’m in bed anymore because I’ve got [MD] ... especially because he can pick my phone up (MD7).

Some dogs were perceived to be so committed to attending to their human partner that they exhibit signs of separation anxiety – fretting and crying – when they are apart:

If he’s not allowed to be with me for any reason, he frets. He wants to be particularly close to me. I would say he is concerned. He’s anxiously looking to where he last saw me go ... and I fret too; there’s a real empty space there (MD4).

It’s like leaving a child behind. It’s so sad. He’ll stand at the window looking at me ... I feel bad leaving him at home, I almost feel guilty ... I was about to leave him at home but he kept following me round, it was like he was attached to my hip. Mum was like, “he was so restless while you were gone; he was pacing and crying” (MD7).

When [CD2] was in hospital, she got in the habit of biting herself, scratching and carrying on; they put her on prednisone. It was like a reaction to him not being here ... When he’s away, she won’t leave me alone. She frets. If we go out, she sits at the door and cries (CD2’s mother).

Indeed, the role of a dog as a caregiver appears particularly salient for people living with chronic conditions. Dogs, insofar as they are able, are credited with getting care right. They have time, and are described as an attending presence, non-judgemental, good listeners, intuitive and empathetic. Partners of Mobility Dogs tended to regard their dogs as more sensitive to their needs and mood than companion dogs.
5.2.3.5 **Icebreaker**

Something done or said to help people to relax and begin talking at a meeting, party, etc. (Merriam-Webster, 2014).

“In terms of my social confidence, I’m a lot more confident with my dog. They are a living breathing icebreaker ‘cause people are concerned about wheelchairs and don’t know what to say’ (MD3).

The role of a dog as an icebreaker – a conduit to social inclusion – is well substantiated in the literature (2.4). Dogs catalyse social interaction, enhance perceptions of relationships with others, mitigate feelings of loneliness and increase a sense of connectedness to the community. MD3’s teenage years were disrupted by major surgeries: having a dog helped connect her with her peer group and compensate for feelings of exclusion from social activities:

I was completely out of sync during crucial psychosocial development years. Social interaction moves at lightning speed so you lose the lingo, the references that are current. Having a dog does heal that rift a wee bit; talking about your dog is common currency among your peer group ... People keep a tally of how many social events you miss because you were sick, and you end up not being invited to things. They only have so much social capital to expend, but dogs aren’t like that; you have a fresh supply of social capital every day.

For people with movement disorders who feel conspicuous – walking with an unusual gait or using a wheelchair – dogs are described as “normalising” and shift the public gaze away from perceived disabilities:

I was in Newmarket on Sunday, and I think twelve people said to me, “oooh you’ve got such a cute dog,” and it’s nice (CD3, power chair user).

Once in a wheelchair, I got treated in a quite peculiar way: suddenly I was deaf and suddenly I couldn’t cope with sentences ... The dog has broken the ice, and suddenly I’m no longer deaf, and I am no longer an imbecile (MD4).

In the home, dogs stimulate interactions with family, friends and caregivers; they provide something to talk about which is not focused on disability or illness. Outside the home, dogs can be excellent icebreakers with strangers. Increased social inclusion in public spaces is experienced with smiles, short verbal acknowledgements and sometimes lengthy conversations. These interactions often go beyond the dog as a simple icebreaker to the main focus of conversation, which offers people some protection from feeling that their personal impairments are the subject of scrutiny:

I’m comfortable if I go to the dog park and I get talking to people with dogs; more comfortable in that situation than I would be if it was just a complete stranger because the conversation centres around the dog, not the person, so the attention’s not on you so much (CD4).

It’s taken the spotlight off me. I don’t feel like everyone’s staring at me anymore. Before [MD], if I had someone with me, they would come up to the person and ask what’s wrong with me? But now I’m with [MD] people make conversation with me (MD7).

Several CDG participants reported making friends through their dog, built around walking regularly in the same place at the same time:

I’ve found that since I’ve been taking him up to the coffee bar every morning at about 7.20, I’ve made friends with probably 15 to 20 people that come in the mornings to say hello to [CD] (CD1).

I have my little dog friends at the park. Every day we bang into each other, and it’s always like, “oh hello”. You have your community in that way ... they’re all just a bunch of single ladies that go down with their dogs. They look after each other’s dogs and [CD] used to go and stay at one of their places (CD3).
We became friends because we'd walk our dogs together, outside of work. There's a community about dog owning. It depends on the mood I'm in; sometimes I will avoid the 6 o'clock rush on a weekday because I know there will be lots of people there. So I'll go earlier in the day when there's one or two. It depends how sociable I'm feeling (CD4).

It's really funny, we got on really well and the dogs get on really well. We're really good friends. I'm really pleased that – because there's some odd bods up at that park as only some dog owners can be – [CD] picked [dog] because we're very much alike. We go to movies together and out for dinner and they're very cool people (CD10).

I witnessed the social lubricant effect of dogs first-hand during walk-along interviews. A short extract of typical dialogue while out walking with CD4 in an off-lead dog park follows; our conversation was frequently disrupted by 'meet and greets' with other people and dogs:

CD4: It was only a matter of a couple of weeks ... (meet other dogs)

(To woman) Hello, how are you? I haven't seen you for ages.

(To dog) Hello gorgeous how are you?

(To another dog) Hi gorgeous aren't you beautiful?

(To me) This one was playing with the dog we were dog-sitting. I have some beautiful photos of the two of them with a stick.

(To woman) Did you come here when it was flooded? God it was amazing wasn't it?

(To me) It was right across the path; in fact one day it was so deep there was a dog swimming on the path, it was just incredible, and then the council came along and unblocked the drain and it all went. That side gets really sticky (meet more dogs).

(To dog) Nice to see you. Hello [dog's name].

(To me) He's a Labrador Vizsla cross. Oh look at the little Staffy (meet more dogs).

(To dogs) Hello. Hi. Hello.

Me: This is a popular place for dogs.

CD4: Yeah oh yeah. [CD] is like don't walk away, I want to sniff your bottom, come back; it's like shaking hands. Here comes the guy on the bike we passed. I didn't know that lot but the lady I was chatting to, I used to see her here a lot but our walking times are not overlapping. She's one I befriended here and we're friends on Facebook. There's definitely quite a little community. If you come here on an evening or a weekday, there'll be a dozen or more dogs all milling around in here.

Companion dogs are clearly very good icebreakers but Mobility Dogs – clearly branded with jackets and public access rights – are icebreakers across a wider range of environments. Consistent with the service dog literature (2.7), this was a key theme for the MDG especially for wheelchair users who previously felt largely irrelevant and ignored when out in the community: “The loss of upright posture ... not only concretely diminishes autonomy but affects the way one is treated by others ... particularly disruptive in the social world of everyday life” (Toombs, 1995). Participants spoke at considerable length about the service dog 'jacket effect.’ A Mobility Dog guarantees that people are on the receiving end of increased smiles and verbal interactions:

Mobility Dogs open the way to every single community that you enter. When you're in a wheelchair you tend to be invisible. No one will make eye contact with you; you drop things and you're waiting to try and make eye contact and say, “excuse me, could you pick that up for me?” All of sudden, when you get the Mobility Dog, you go from being this invisible person to a magnet for all and sundry ... I went on my own [away on business] and all of a sudden I became invisible again. I'd be walking from the hotel to the Archives every day and no one would look at me, no
one would make eye contact, and I’m thinking, “what’s going on?” My dog isn’t here! It was incredible. I missed being part of the community ‘cause all of a sudden I was made to feel an outsider again ... the thing I love the best is those that just look at you and smile at you; you’re being seen as just another ordinary person with a dog (MD2).

She’s a very good excuse for social capital. People may be hesitant to talk to a person in a wheelchair; they truly are. Having an exotic poodle-looking creature draws a lot of interest and that’s good because you get exposed to a whole variety of people who may never have considered talking to somebody in a chair (MD3).

People see you in a wheelchair and they shout at you, and they speak in simple sentences, and speak slowly and then turn round and face you and treat you as though you’re a little bit less than the full quid. I’ve found that him being with me, people notice the dog and talk about the dog (MD4).

The amount of people who come and talk to you and ask questions: holy crap, it’s crazy. I feel good though. I like people acknowledging me instead of the person that’s with me. I feel that when people see me, they automatically assume I’m mentally disabled too: therefore they don’t talk to me (MD7).

However, there is a fine line between feeling positive about this increase in public attention and feeling frustrated, especially when people make the assumption that a person in a wheelchair has little else to do than listen to personal anecdotes of dogs and/or interact with the dog inappropriately: patting and feeding. This feeling of annoyance with the public is tempered by a responsibility to be a good ambassador for the MADT:

It’s not always a positive thing. If I’m in a hurry I just ignore everyone around me, put my head down, and carry on. If I’m not in a hurry, I don’t have a problem stopping and speaking with people, but it can be a wee bit tiring when people want to tell me about the 20 dogs that they’ve had in their whole life. You’re very much an ambassador for MADT when you’re out in public so you have to be nice. The other hard thing is that people want to pat them. It’s not allowed. I’ve had a few people get really shirty with me because I’ve said, “no, you can’t touch the dog” (MD2).

You can get waylaid by people who want to tell you about their second cousin once removed who once bred poodles. It depends on my mood; if I’m not rushing to get anywhere it’s okay, but quite often people are like, “clearly this poor disabled person has nothing else to do, I’ll talk to them so I can do my good deed for the day,” without realising that I actually have a life (MD3).

We always have to build in the [MD] factor when we go out on shopping expeditions ... takes about 45 minutes longer. We make a point of telling people because we feel that Mobility Dogs are undervalued and not as well recognised in the community as others, so we’ve taken it on as a little crusade, like they said we should. We think it’s valuable to do that so we don’t say, “we are in a hurry, we can’t talk to you” (MD4).

The biggest problem has been people coming up and wanting to pat him and feed him at morning tea. I’ve had a notice put in the bulletin to say working dogs must be left only to their owners, please do not touch or feed him. When his jacket’s on he’s a working dog, end of story (MD5).

People want to pat him. It’s so frustrating ‘cause I go to the mall during lunchtime and I find it extremely hard to say no to little kids and older people. It’s okay at uni because my friends understand that they can’t touch him, even though sometimes they do ... the attention does get overwhelming sometimes. And the questions, you feel like you’re repeating yourself. I love telling people about it but when you’re in a rush it’s really hard to brush people off. When people see people like me they think we don’t really have a life; we just do nothing. But I go to uni, I have half an hour of break, I can’t stop and chat for five minutes. I remember [trainer] saying, “you’re representing Mobility Dogs,” so I have to keep a lid on it. Some people I just want to run over (MD7).

Notably, CD10’s very large breed attracted attention and stimulated conversations in much the same way as a Mobility Dog wearing a service jacket:
Because he’s quite unusual, people sometimes ask me if he’s a service dog. He always gets attention... people coo over [CD] like: oh my god, he’s so huge, and he’s so fluffy... People are always commenting; If he’s in my dad’s ute, he will put his head out – there’s this big bear head outside – and everyone points and says something (CD10).

This was supported by numerous interactions with other people on our walk-along interview in an off-leash dog park. This suggests that people with movement disorders who are not interested in a service dog, but seek a heightened level of engagement with the public, could consider a very large, or perhaps unusual or exotic, breed of companion dog instead.

An additional social aspect to a Mobility Dog is the feeling of being part of, and supported by, a larger group with a shared common interest. The MADT organises conferences and graduation ceremonies for recipients, and inevitably these events lead to opportunities to form new friendships:

I loved the weekend... It was just nice to speak to people in similar boats, and establish links – a sense of community – with the newer recipients, and offer advice, and get some advice; a bit of a refresher course on your identity as a Mobility Dog recipient. As one of the older ones you’re well established, but it’s nice to come back (MD3).

We met up and took our dogs for a walk. I’ve been meaning to catch up with her since [the weekend]. She’s had Mobility Dog for much longer than I’ve had [MD] so she gives me tips and shows me how to do things... A friend that you can relate to (MD7).

The Trust also maintains a Facebook page which connects recipients of Mobility Dogs, dotted around the country, to the everyday activities of the Auckland-based organisation. An unexpected finding was the extent to which dogs were also forging relationships via social media platforms. For people with restricted mobility, the internet offers a readily accessible avenue for social interaction and, as in everyday life, dogs function as icebreakers in the virtual world: “I have a folder of dog photos on my Facebook page. People love that kind of thing; they love to see you out and about with your dog” (MD3).

MD7 announced the success of her Mobility Dogs application on her Facebook page:

I went on the Mobility Dogs’ Facebook page and I came across photos of [MD] as a puppy... I saved them all to my phone. I wrote a status on my page: omigod just got accepted to get a Mobility Dog;

CD4 made a good friend on Twitter through a shared interest in dogs:

The woman I now think of as my very closest friend was looking for people to walk with, to socialise her dog, and so we arranged a date via Twitter and we’ve become really close;

and CD1 wrote on a virtual memorial wall following the death of her dog.

Some participants’ dogs had profiles on Twitter, Facebook and Instagram:

I tend to Instagram photos of her if we go out for a walk or if she’s doing something particularly cute... She has her own Twitter account although she hasn’t tweeted much recently. She gets mentioned by other people quite a bit. I’m still thinking about making her a Facebook page... [Past CD] had quite the following on Twitter because he was quite naughty; he was always getting into food and stuff like that, and he was quite cheeky about it. People adored [him] because of his hijinx. People would tweet me back and say, “omigod I love him” (CD4).

He’s now got an Instagram account as well as his Facebook. There’s other Chihuahuas on Instagram that have thousands of followers (CD5).

Social media platforms also provide the opportunity to connect with people around the world with similar conditions. CD5 found it useful to connect with others diagnosed with Calpainopathy: “I’m the first person in New Zealand to be diagnosed... I have found a group on Facebook... People post stuff about
their condition, how they got diagnosed, their stories, and talk about things that they've tried." But CD4 was less enthusiastic to connect with online MS forums, in the same way as she preferred not to participate in MS coffee groups. She found online activity centred on her dog more positive and uplifting:

There is a MS group on Facebook but I’m thinking about leaving. I don’t want to be constantly confronted with the bad stuff. I find the more I become immersed in these groups, the more negative I feel. It’s the same reason I stay away from MS coffee groups; the group is defined by the fact they all have MS.

Unlike Mobility Dogs who were all icebreakers, there were two dogs in the CDG that had the opposite effect:

We were at the park and this lady said, “would it be alright if my daughter patted your dog?” I thought it would be okay and next minute he’s like grrrr and trying to bite this little girl. Since then I say, “I’m really sorry but he’s a bit grumpy about little children and I wouldn’t want you to get bitten.” I feel embarrassed ... The other thing he hates is people running. If you take him for a walk and someone runs past him, that sets him off ... he's grrrr whenever we see another dog. I always say to people, “I'm sorry, my dog’s not very sociable.” He’s not keen to meet other dogs. They could be as big as a horse and he’d still give them a big growling and tell them off. ‘Cause he’s so busy going grrrr I feel I need to get away as quickly as possible (CD5).

Antisocial and aggressive behaviours are a key difference between some companion dogs and Mobility Dogs. Such behaviours may nullify the potential of a dog to increase social interactions, and therefore some people do not reap this benefit.

5.2.3.6 Summary narrative MD2

My second summary narrative follows the first retirement of a Mobility Dog in New Zealand and MD2’s transition to a new dog. It provides valuable insight to a well established service dog partnership (both the benefits and challenges) and highlights that the experience of retiring a service dog is not easy. Importantly, this narrative illustrates time as a key component in my study. A Mobility Dog partnership is a shifting relationship, juggling progressive changes in disability alongside an ageing dog.

**Female, 43, muscular dystrophy. First Mobility Dog about to retire and new Mobility Dog pending.**

Facioscapulohumeral muscular dystrophy is primarily your face, your shoulders and your arms. They classify me more into the severe level because my trunk and legs have been affected. The reason we didn’t have children is that it’s a 50 percent chance every child I have would inherit. It's a degenerative condition that wastes away your muscles: you lose your strength, your stamina and your ability to do certain tasks over time. I started using a manual wheelchair when I was 25. I was using a power wheelchair when I was in my mid-30s for distances, and full-time since 2007. I actually do more than I did 10 years ago because I’m not worrying about walking and falling. It was a huge effort to maintain my balance, to put one foot in front of the other. I never made eye contact with people because I was too busy looking at the ground; the smallest thing could topple me over. I was at home a lot because I couldn’t go out on my own, and if the weather changed I had to cancel appointments because it was too unsafe. When this chair and then the car came, all of a sudden I could go out. I'm not reliant on other people. It’s realising there’s a different independence out there.

With [MD] getting older I’m having to ask her repeatedly to do the same thing: that can be quite wearing. I temper my day to accommodate her slowing up. We’re going away overseas and it seems a good point to end that working life there, then have two to three weeks to get through that grieving process, ‘cause
there will be one. If we keep [MD] it becomes a bit different, but I’m still working on the premise that we’re probably not keeping her. When she retires it’s going to be exceptionally difficult to say goodbye because she has been part of my life 24/7: she goes to work with me, to dinner with us, on holiday. She’s very much part of our lives. My husband will miss her because she loves going in the garden with him. He’s her plaything; the one who will throw balls. His first comment when we started talking about retirement was, “I’m running away with the dog and leaving no forwarding address.”

The MADT has no aversion to you keeping your old dog and having the new dog come in, as long as there’s a clear delineation that the dog becomes the other person’s in the household. The dog also needs to be accepting of the new Mobility Dog taking over its tasks and its role. If my husband could take her to work, it would be a different scenario. The MADT has rules around how long you can leave a dog on its own and I couldn’t leave [MD] at home for a day, especially when she’s been so used to going with you. She gets stroppy enough when we go out in the evening; we come home to windows covered in slobber. It’s like she barks out the window and says, “now you have to clean it and it serves you right for leaving me.” All I want is for [MD] to have a really good home, where she’s well looked after and well loved for the remainder of her life.

There are a number of things I want the new dog to do as my needs have changed: like assisting taking jackets and jumpers off. [MD’s] a basic model – one of the first to go out – not perfect by any means. She doesn’t like clapping. I do public speaking so a dog that does not have that clapping aversion would be useful. [MD’s] not an overly snugly dog and sometimes I miss that, particularly when I’m not well. I have friends who have Mobility Dogs – retrievers – and when they get sick, the dog is cuddled right up next to them on the bed, and I’m a little bit jealous. [MD] tends to observe from afar. I think she’s very aware of my pain levels and doesn’t want to intrude or hurt me more. But sometimes all that I want is a cuddle; I don’t want [MD] sitting in the other room waiting to be called.

One thing I will not miss is her barking. The dog next door moved in after us and they scream at each other up and down the fence line; it’s terrible ‘cause she shouldn’t be doing that, but I can’t stop her. Being a German shepherd, she’s guarding the property. I can never use her “speak” command to let anyone know I’m in trouble because they’re so used to hearing her bark.

Six months later MD2 was interviewed with her husband:

[MD] will retire 13 days from today; she’ll be adopted by us. We’ve had a couple of sleepovers with my new Mobility Dog and it’s all gone woofingly. I said to [MD] last weekend, “well girl, it’s up to you now, there’s nothing else we can do.” I couldn’t do it without the support of [husband], and the space. I was feeling bad because I wasn’t feeling excited about my new dog coming. The sadness was that this might not work. They seem to get on really, really well. [New MD] is an easy, easy dog; I’m quite smitten, and I think [MD] is smitten with [new MD].

We’d rather keep her than have her go somewhere else. We’ll have to make a few adjustments but, based on how it’s gone so far, I don’t think it’s going to be any problem. We’ve decided when we come home from work we’ll take the dogs out together for a walk. Might only be a five minute walk but it’s making [MD] feel important, that she is still part of the family. It’s probably the hardest thing, [MD] will have to stay at home; we’ll have to time it so she’s not on her own for too long.
I think my life is going to turn into a circus: two dogs and lots of hair all over the place, dog toys everywhere. I warned family and friends — my house is cleaned once a week — they just have to put up with it. I know there’s going to be times I’m going to want to scream at the pair of them, and it will drive me insane, but there will probably be a lot of laughs as well, a lot of good fun. I think [MD] knows that things are changing; I’m projecting all my own thoughts onto the dog. We tell [MD] she’s getting a little sister.

With [new MD], it’s companionship in a totally different way. She’s so gentle, a lot more tactile: having a dog come up in the morning, look at you, put their paws on you, and lay their head on your chest, I just melted. I love that. It’s realising how far the training has come since [MD]. I think [new MD] is going to be a much easier dog which means we probably will take her a lot more places than we ever did with [MD].

Overall it means safety and security. If I’m not around, I know [wife’s] got the dog so if anything happens there’s a level of safety. At home, the dog can get the phone and when you’re out in public, it’s the security aspect. You don’t have to worry as much. But having to ignore [new MD] is very difficult. You feel bad because she’s there wagging her tail and you’re not allowed to pat her. And it’s instructing everyone else in my family [not to interact with the dog]; mothers are the worst. It’s hard, but I know I need to be really, really tough; it’s only for the first six months.

Four months after placement with [new MD]:

The transition wasn’t all plain sailing. There was a bit of argy bargy and one fight, but it cleared the air. We still have the odd day [MD] tries to do something ahead of [new MD]. Usually [new MD’s] around because she doesn’t like me out of sight. I love my new dog (Figure 5.12). I’m just blown away by her: the affection, the quick response, and the different range of tasks that she does. I love the affection. She loves to give you a big lick; I don’t mind her licking my face, but I prefer her not to lick my mouth. She’s such a happy dog. She comes in, wags her tail and looks at you, and she makes the world seem right again. Her bedside manner is amazing. When you’re having a down day it’s quite lovely to have a dog that reads that: comes over and puts her head on your knee as if to say, “oh mum, you need a bit of a cuddle.” I know it works two ways but she’s very attuned to me, more so than [MD] ever was, and the bond between us is far greater because she is very tactile. I just adore this dog. I’m getting the feeling she’s going to be harder to retire. I think you’d find many of the early Mobility Dogs’ clients would say the same thing. While [MD] suited my needs, the training of these new dogs opens up a whole new world in many ways.

When I come out of the car, closing that door is huge for me. I never thought something as simple as opening and shutting a door would save me so much time and energy and struggling. Her retrieval is much higher. We still practise getting the telephone, just in case. She brings me my dressing gown. I only asked her to get it three mornings in a row and she gets it every morning, the minute I get out of bed. I feel I have the tools to train [new MD] how to do things. After about three weeks I thought, wonder if she’ll get paper out of the printer? I gave her the commands and it only took two goes. I couldn’t stop laughing. If I’m doing a special letter I don’t get her to do it, but a little crinkle and a bit of goob never hurt anyone. She loves it; her tail wags the whole time; some days she’ll hear the printer and come flying in the room and pull it off. I use the “speak” command quite a lot: when I’m in the shower because I’ve run out of shower gel or when I’ve fallen off my chair or slid off the bed and I’m precariously
hanging, she alert barks. [Husband] comes running. Recently I had terrible bronchitis and I coughed all the time. At night, the minute I started coughing she was right there nudging my hand or trying to get into bed with me like, “you’re not well.” Honestly, there were some days I’d look at the dog and she’d have bags under her eyes, exhausted because she’s been up all night checking up on me. And if I was in the house every time I coughed she would come and sit in front of me like: Are you alright? Do you need me? Poor thing got quite stressed at the doc’s as I turned very unwell there, and she got even more stressed when I was carted off in an ambulance and she was left with [husband]. The welcome I got from her when I got home was incredible. I was well missed and it proved to me the special bond we have. I get a lot of people saying, “that dog’s so beautiful.”

![Image](https://via.placeholder.com/150)

She loves to give you a big lick

![Image](https://via.placeholder.com/150)

Her bedside manner is amazing

*Figure 5.12. New Mobility Dog.*

At work, she pops herself on her bed behind my desk. There are parts of the [workplace] she can’t come, because of dog hair. We went to Wellington to do some research. While she was not particularly good on the flight – the first time she’d ever flown – we managed. It was great having her for company. It was the first time I had travelled on my own for quite some time. I always knew that toileting and getting dressed was going to be an issue because I don’t have the equipment that I do at home. Having her gave me more confidence. The only thing, it did make my time away quite tiring because I was solely looking after her. I had to think of her toileting needs whereas if I’d been with [husband] he would have done that for me. I wouldn’t take her if the weather was going to be really bad because then you’re dealing with a stinky, wet dog on your own, and I’m not very good at towel drying. She was just an angel. She slept under the table all day; she was there to pick up my pencils when I dropped them. While I was tired, it was easier than I thought.

These dogs are not robots: these dogs are dogs and they’re going to be a bit silly at times but usually when you put them in their jacket – the business suit – these dogs know when to shine, when they have to be on their game.
**5.2.3.7 Empowerer**

To give power to someone (Merriam-Webster, 2014).

“By and large with disability you don’t really get responsible for much. If anything your responsibility is stripped away from you; you’re constantly offered help to do things. The key thing with Mobility Dogs is that you’re in charge of the help that you get, you’re responsible, you’ve got a sense of control” (MD3).

It has been proposed that empowerment is related to QOL and that “sense of empowerment” be included in I. B. Wilson and Cleary’s model as an individual characteristic (Kass-Wolff & Sousa, 2013). The role of a dog as an empowerer resides in providing a sense of purpose: “You’ve got something to care for and you don’t worry just about yourself” (CD1); “They draw you out of yourself, whether you want to be drawn or not” (MD3); “One of my biggest problems, boredom ... It’s good having a dog (CD7).

Responsibility for the care of a dog adds meaning and structure to daily routines. In her study of elderly pet owners, Enders-Slegers (2000) referred to this as an ‘opportunity for nurturance’ and ‘reassurance of worth’. Furthermore, caregiving between humans and canines is reciprocal, unlike many caregiving relationships between people which are one-sided. For people with movement disorders, often receptive of care, the need to feel useful may be acute due to the loss of former occupational roles and/or limited opportunities to establish new roles:

- There are lots of reasons why a dog would be wonderful for me. It gives you a sense of purpose and that would be wonderful because I’ve lost my career, my husband, my liberty, my health, freedom from pain. It would be wonderful to think I’m really important to this animal; I’m as important to this animal as this animal is to me: a wonderful, symbiotic relationship (MD6).

Additionally, Mobility Dogs – trained to provide functional assistance with everyday tasks – offer increased self-efficacy (Camp, 2001): control over situations that otherwise require the intervention of others. The service dog model is grounded in recipients taking overall responsibility for care of their dogs, and public access rights place fewer barriers to a Mobility Dog’s inclusion in life outside the home. Mobility Dogs were described as “24/7 dogs” (MD2) and “the dog for all seasons” (MD3). It has been shown that responsibility for caring for an animal also strengthens attachment bonds (Kurdek, 2008; Kwong & Bartholomew, 2011). Coupled with the role of a Mobility Dog as a tool (5.2.3.12) a Mobility Dog is potentially more empowering than a companion dog: “I see asking for help as failure. It’s so lovely that you could think you would be independent, you wouldn’t have to ask and be rebuffed (MD6); “I’ll drop something and I’ll go and ask someone to pick it up and then, hey wait, [MD] can do that. It makes me feel that little bit more independent” (MD7). Figure 5.13 displays Mobility Dogs in public spaces, not usually the domain of companion dogs. Being able to take a dog into a range of environments may bolster confidence, especially in new and unfamiliar situations:

- One of the biggest assets to [MD] is that she’s not remotely fearful; she loves new environments, she loves new stimulation (MD3).

- It was the first time I had travelled on my own for quite some time ... I always knew that toileting and getting dressed in the morning was going to be an issue because I don’t have all my equipment that I do at home. Careful consideration and having her gave me more confidence that I can do this (MD2).
However, caring for a dog, although intuitively empowering, may bring additional challenges especially for people with chronic conditions. There are: physical challenges of exercising, bathing, grooming and toileting the dog; financial challenges including food and veterinary costs; and behavioural challenges in
managing the dog. Rather than increasing independence, it could be argued that, in some cases, having a dog increases reliance on others:

I hadn’t noticed that he had a rash under his back leg. I can’t get down there to see it, and also he had big matted hair. I’ll have to find someone to do that regular inspection for me ... It’s not cheap to own a dog. I have the annual vet thing very soon; it’s not cheap. I’ve held back on pet insurance ... I fully intend to do it but when you’re on superannuation, it’s very hard. Everything’s just going up and up and up (MD5).

Dog hair is the one thing I’m struggling with because with two big dogs shedding I’m constantly covered in hair and it makes me feel untidy, and it attaches itself to my chair. I’m terrified my house will smell of dog; I buy air fresheners ... but people have to understand there’s only so much I can do. It’s hard work having two dogs. I couldn’t do this on my own, no way. If [husband’s] away I do have to rethink my days because I have so much more to do. It’s a lot more tiring (MD2).

Inevitably, many conversations came around to the logistics of ‘picking up’ after dogs in public spaces which, again, may require assistance:

Picking up is the hardest thing for me. I have to use those grabber things. Pick it up, pop it in a plastic bag and into the bin, come home and wash the grabber. That’s a bit of extra work. Occasionally I’ve had to leave it because he’s got too far on the wet grass and there’s no way I’m going to put the chair there. It’s a helluva job when you get stuck and it’s messy; I’ve got to have the chair washed (MD5).

(Dog goes to the toilet on walk-along) Damn, it would have to be that far away. Now I have to make sure I don’t roll over other peoples’. It really annoys me when that happens because I think if I’m going to make the effort ... People often say, “I’ll get that for you” which I think is quite nice. I wouldn’t like to pick up another dog’s poo (CD10).

I was worried about the pooping and pick up but everyone was so supportive; I never had to ask anyone, they just did it. I worked with a really good bunch of people. And there was some meeting and he vomited, and they just cleaned it up (MD7).

The financial burden of veterinary expenses cannot be ignored, especially for people who are no longer able to work as a result of mobility impairment. Faced with meeting veterinary costs, participants’ preparedness to make sacrifices for their dogs demonstrated a strong ethic of care: “When she got sick she had to be on chicken; so she ate chicken and I ate tinned tomato soup” (CD3); “I’d sell everything; I’d sell the house just to get something for [CD]” (CD1); “If you’re an animal person, you’ve got to make it right. It’s not cheap, the old vet bill. I’ve spent a couple of thousand on him ... I could just have baked beans or live off veggies: that doesn’t worry me, that’s more important” (CD8).

Another challenge can be leaving a dog. It has been suggested that high levels of attachment to a companion animal may have a negative impact on QOL (Chur-Hansen et al., 2009), especially when people are unable to socialise and enjoy pleasurable activities because they are worried about their dog. These feelings were expressed by several women in my study. Anticipating an overseas trip, CD5 dreaded parting from her dog and was concerned that he would feel abandoned:

I feel super anxious about leaving him. I love this little guy and I’m going to miss him terribly. I feel very worried about him and I don’t know if [dog-sitter’s] aware of just how important this dog is to me. I want him to take extra care with him and I don’t want him flattened on the road while we are away. I’m also worried he’s probably going to think we’ve abandoned him ... It was pretty awful. We put him in his little laundry before we drove off to the airport and his little face ... We did skype him from LA airport. The dog didn’t seem that interested to do skype, “did you [CD]?” We only did that the one time!
CD1 was unable to fully enjoy her holiday: “We went and stayed at the Regent in Fiji. It was beautiful, it really was, but I must admit I pined the whole time for [CD] even though I knew he was okay.” And MD4 “fretted” when apart from her dog.

Part of caring for a dog is to protect it from harm (in this sense the role of protector is also reciprocal). Participants expressed concern about the safety of their dogs in various situations. A disadvantage of a companion dog is lack of public access rights. CD3 (wheelchair user) popped her dog on her lap when she entered a store as she felt it was dangerous leaving her dog unattended outside:

There’s been quite a bit of dog-napping going on. I think some of the little ones are stolen and resold – I’ve been finding some on Trade Me – so I just kind of panic these days. I don’t leave her out. If I can’t go in, I go somewhere else. I couldn’t think of anything worse, not knowing where she was (CD3).

On the other hand, participants with Mobility Dogs took pains to explain that having public access does not necessarily make it safe to take a dog into all environments: it is the guardian’s responsibility to make sensible decisions. MD3 shared two scenarios that make it difficult for her to bring a Mobility Dog to university:

Even though we say Mobility Dogs are 24/7 companions, I will make a judgement call. Just because you can have access to a place doesn’t necessarily mean you should. You want your dog to fit into your world. Frankly, it’s a lot easier in some instances not to have a dog. When you’re in a really, really small university seminar room that’s got 19 people in it – should only really fit 15 – it can barely fit my chair, let alone a dog.

Have you ever seen the library lift? The worst cargo lift you could ever see. I can barely fit in it. I optimistically took my dog one day, I was on one side of the lift and my dog was on the other, and the door was closing and her lead was between the doors, and we don’t need to imagine what could have happened. It’s a real logistical thing. What do you do when your dog does not fit? They call it wheelchair access but in any meaningful practical sense it’s not. [MD’s] got to fit pretty seamlessly. I’m pretty attached to her, I don’t want her to be uncomfortable, I don’t want her to be scared. Very little fazes her but you want to think about her emotional and physical well-being (MD3).

In these situations, a Mobility Dog increased disjuncture between MD3 and her immediate physical environment. And MD7 carefully considered her Mobility Dog’s safety before taking him to social events: “I thought maybe not the best place to take him because there’d be drinking and stuff. I don’t want to have him in an unsafe environment” (MD7). She would not be able to enjoy herself if she were worried about her dog. Public access rights aside, some recipients also spoke of cultural considerations around dogs that demand respect and may inhibit their inclusion in some environments:

I haven’t had anyone who has been actively hostile but I’ve been in situations with restaurants where cultural considerations around dogs have to be taken into account because there are places in the world where dogs aren’t really considered pets; they are considered either to be street vermin or in some cases a meal, so it’s a real cultural violation. We practically deify our dogs as real companion animals so you have to appreciate the fact not everybody does. In a small restaurant it’s quite confronting for people, so you’ve got to pick your battles ... Normally when I’m in a situation with a phobic person or group I just avoid them and that’s fine, but when you’re in an enclosed space you can’t ... or you’re around people who’ve had a bad dog experience ... you’ve got to respect those personal boundaries (MD3).

I don’t take him to our families’ houses ‘cause it’s a cultural thing for us: like I didn’t take him to our grandparents’ place for a prayer. I totally respect that people might not want a dog for certain reasons (MD7).

There are certain places that they have not been so keen for him to be there; that mightn’t be that they’re concerned about the dog, they might be concerned about their job and the
requirements thereof. Some of the district nurses are quite happy for him to stay in the room, but some are of a different racial background (MD4).

Although empowerment – increasing independence, confidence and self-esteem – is promised in the MADT’s mission statement, my research exposed aspects of the Mobility Dog process (particularly in the application process, outlined in 1.3.3.1, and early stages post-placement) which could be interpreted as contrary to this objective. In contrast to the acquisition of a companion dog, the multi-staged application for a Mobility Dog is lengthy and largely beyond the individual’s control. Approved applicants then face an uncertain time waiting for a suitable dog:

I really hoped I would have a dog by now especially when I believe I just missed out on a dog last year when I had to have additional spinal surgery ... I have zero idea when it may ever happen (MD6).

Partnership with a Mobility Dog places recipients under the umbrella of the MADT. However, in some cases this may unintentionally impose a heightened sense of responsibility and associated feelings of inadequacy and/or anxiety which undermine rather than empower individuals, particularly in the early adjustment period:

There was a lot of emphasis and anxiety producing stuff around having the perfect bond and having the perfect dynamic with your dog and how detrimental it could be if you didn’t. And that was really quite hard to take on board when reconciling it with everyday experiences and everyday reality (MD3).

Managing this delicate balance hinges on the ability of the MADT personnel to handle each placement sensitively on an individual basis. It is my observation that the MADT has become increasingly aware of this issue in recent years; the pre-application information pack endeavours to counter unrealistic expectations of the capabilities of a service dog, and emphasises that it takes time and commitment to learn to work effectively together. Partnership with a Mobility Dog for most new applicants is a steep learning curve: “I’ll never forget the first six months, the most exhausting six months. You’re so worried about every little thing, like new mothers” (MD2). However recipients may equally be rewarded with a feeling of mastery over new knowledge and skills:

We’ve been to the Art Gallery; he was the model of perfection there. [Trainer] said she wanted me to try letting the leash go and see if he’ll come back to me. She put some food in the middle of the foyer. He walked across, he ignored the food, came straight up and everybody clapped; my proudest moment! (MD5).

However, if recipients are not doing well with their Mobility Dog, they may feel a sense of failure and be reluctant to seek the help that they need for fear of disappointing the trainer, losing public access rights, or perhaps the dog. Although the last possibility is unlikely, recipients of Mobility Dogs remain guardians, not owners, of their dogs. Without exception, participants in the MDG who attended the MADT conference and graduation weekend in February 2014, expressed feelings of relief that other people also had issues with their dogs: “I was so relieved. I was really new at the time and I thought everyone else’s dog would be perfectly behaved. It was really nice to see that I wasn’t the only one. I felt like he has to be good all the time, but I don’t feel like that anymore” (MD7). Conversations with the MDG were notably peppered with the likes of: “not allowed” and “rules.” Undeniably there are very good reasons for enforcing standards of care and behaviour for service dogs, but the manner in which these are presented may make people feel more controlled than in control. Difficulties may arise when trainers, placing the dogs, find it difficult to see things from a human (person living with a chronic condition/physical disability)
rather than canine perspective. Lloyd (2004) noted that a good relationship with guide dog instructors in New Zealand fostered success of partnerships, and I believe the same applies to service dog placements. Two new recipients of Mobility Dogs talked at length about post-placement issues which did not appear to have been adequately addressed. I acknowledge that I have only one side of these stories. Four months post-placement, MD5 expressed mixed feelings about his Mobility Dog experience:

Some of it has been very very good and there are some problems as well. He is reasonably strong-willed despite the fact he’s quite a placid, quiet dog … bit of a tussle with who’s the boss occasionally which [trainer] tells me is my fault … I was hurt a bit yesterday when she [trainer] really got stuck into me, but I’ll take that on the chin and I’ll try and get better. I’m not commanding enough apparently. Right from day one she’s always told me I’m not definite enough with my commands, I’m not loud enough. Well, I’m not a loud person. It’s been very hard for me to get louder. I have difficulty getting the commands right … One of the other things I’m having real problems with is getting him to retrieve, and he’s a retriever! I don’t know whether it’s me. [Trainer] reckons it’s my fault so it must be. He just refuses … And having gone from not giving him enough patting I’m now giving him too much praise and patting. You can’t win can you? It’s all learning, it’s all new.

Ten months post-placement, MD7 was grappling with the ongoing problem of family members feeding her dog which had led to her dog’s deteriorating behaviour around food in public spaces. She acknowledged that she should contact the trainer for help, but felt embarrassed:

It was so hard in the supermarket the other day. I had to tell him to “leave it” the most times I’ve had to tell him. He would sniff little bits on the floor, and then he got distracted by a carrot. It makes me worried ‘cause he never used to be like that. I’m really trying to make him like he used to be; it’s just so hard when your family don’t get it … I know I should tell [trainer] but I feel like it’s my fault. I don’t want to disappoint anyone. I know there’s help if I need it, I just don’t. I’m just worried that she’ll be disappointed.

Another aspect of the MADT process that some found harrowing was formal assessment: a written test to assess knowledge of canine care and behaviour and the practical Public Access Test (ADI, 2015), periodically reassessed. Again, there are very good reasons for ensuring that recipients of service dogs know how to care for their dog and are competent handlers of their dogs in public spaces, but obviously there is no pressure to pass tests with a companion dog:

I thought the theory part of it was worse than the practical. I just don’t like exams and that’s what it felt like. I wasn’t being put on the spot, but it felt like an exam. You had to be quiet. It made me so much more nervous (MD7).

So long as we can still get our public access certificate. That’s the big thing. I’ll be very disappointed if we don’t get that because it means I can’t take him where I want to which will be a shame (MD5).

Make sure that the person is geared up for the annual assessment rather than calling them up out of the blue and saying you’ve got to do the test. Have the criteria for the test changed in the last 12 months? One of the things that came out of the conference weekend was that certain expectations when [MD] was in training are not the expectations now (MD4).

You go through your public access test then six to eight weeks later you go through it again to make sure that you’ve kept it all up … The first one was a complete and utter nightmare (MD2).

There may also be unexpected challenges when a Mobility Dog is not an ideal match: the recipient develops a strong attachment bond with a dog despite persistent issues that make some aspects of life more difficult. This was evident in MD2’s summary narrative (5.2.3.6) comparing her two Mobility Dogs, and MD3 listed her dog’s energy level, prey drive and associated distractibility as traits she struggled to manage: “She’s as sharp as a whip so in some respects she’s a great service dog but there are definite drawbacks to having a high energy dog. My second dog will definitely be a calmer dog; I will definitely
request a calmer dog" (MD3). Both dogs were amongst the MADT’s first placements and would not be deemed suitable as full service dogs on the programme today. The implication here is that many companion dogs fall short of the behaviour and training standards demanded of service dogs.

The role of a dog as an empowerer is clearly complex and inextricably linked to individual situations. There are both positive and negative aspects to the responsibilities that come with both categories of dog. While Mobility Dogs promise increased self-efficacy compared to companion dogs there are also drawbacks. These drawbacks have been more strongly voiced in my study than others (for example, in the ethnographic study of five service dog partnerships by Camp (2001)). This may be because I have conducted research in a different country and/or with service dogs provided by a different organisation. It could also be that I have explored the drawbacks of service dogs more exhaustively to present a balanced comparison with companion dogs, whereas previous studies have focused more on the benefits of service dogs.

5.2.3.8 Motivator

To give (someone) a reason for doing something: to be a reason for (something) (Merriam-Webster, 2014).

“He’s the only thing in my life now. He is an absolutely amazing dog; he’s the only thing that motivates me” (CD6).

The role of a dog as a motivator to engage in regular exercise has been observed in a number of studies (2.3.1). Motivation to walk a dog is linked to an ethic of care: recognition that exercise is important for canine health and well-being:

I’m really big on responsible dog ownership, giving dogs what they need: love, freedom to run and be themselves, be a nutter – especially off-leash – go crazy. That’s the thing I love most about dogs; their whole joie de vivre; they get out there and have a rip-roaring time. It breaks my heart when I see dogs that don’t have a walk (CD3).

Most participants acknowledged the importance of physical exercise (including: physiotherapy, gym sessions, yoga, swimming, cycling and walking) in the ongoing management of their respective conditions, but varied in their ability to exercise independently. Three participants were highly motivated by their companion dogs to engage in physical exercise and a further three were highly motivated by their dogs to spend time outdoors. Even with the best will in the world, meeting a dog’s exercise requirements can be challenging for people living with compromised mobility and debilitating levels of pain or fatigue, not to mention inclement weather and difficult terrain:

I love my dog dearly but I don’t greet the sun particularly well. It would be great if I could take her out every day for a big long walk in my chair, but the reality is I don’t have the energy first thing in the morning; morning hits me like a ton of bricks. And, unfortunately, there are few local walks that are both wheelchair accessible and dog friendly (MD3).

It’s cold and I can’t take him for his walks as often ‘cause I don’t want to get sick (MD7).

With my walking I’m worried about tripping over cracks in the footpath (CD8).

The ability to cater for a dog’s exercise needs does not preclude acquisition of a companion dog. However, applicants for a Mobility Dog must demonstrate how they will manage this. Mobility Dog recipients are strongly encouraged to exercise their own dogs (as part of the overall responsibility of having a dog) but it is accepted that some people will need assistance. Family members may be
prepared to assist: “She goes for an early morning walk with my mum. My mum adores walking and [MD] needs a level of energy excised to make her calm and quite sedate” (MD3).

Two ambulant participants placed great importance on walking dogs for physiological health benefits. For CD1 (summary narrative 5.2.3.3), returning home to exercise her dog was her main motivation to learn to walk again following a stroke. Despite her dog’s sudden death she adhered to her exercise routine to stay normotensive. Although she was adamant at our first meeting that she would never get another dog, six months after her beloved dog’s death she was anticipating a new canine walking companion. CD6 (summary narrative 5.2.3.9) emphasised the importance of exercise for people with Parkinson’s, and stated that taking his dog out each morning was his only motivation to get up. He had established a daily exercise ritual with his dog, which involved ball-throwing and step challenges (the more throws and the longer his steps the better), and kept a record of his progress. These scenarios demonstrate that a dog may catalyse the restoration and maintenance of ambulation, both at home and in the community. Dog-walking may also provide physical exercise for self-propelling manual wheelchair users. CD10 regularly negotiated a steep gravel path to access an off-leash park:

> With the gravel it’s quite hard work. If it’s been raining and it’s sludgy I’ve got a really big push up there … sometimes I say, “this hill, I’m going to do it all in one” to give me a bit of a workout, especially on non-swimming days.

Irrespective of whether people are actively walking or propelling a manual wheelchair, walking a dog may nonetheless be a motivator for people to access the natural environment (Figure 5.14). Endorsing the biophilia hypothesis (2.8.1) an article in the New Zealand Herald – Take a hike: Why doctors should prescribe ‘nature’ (Smith, 2014) – lamented that the mid-nineteenth century prescription of nature as a cure “seems like ... a quaint tonic from a bygone era” despite evidence that exposure to nature elevates mood (Ulrich et al., 1991), reduces cortisol levels (Park, B-J. et al., 2007) and increases immune system markers (Li, Q. et al., 2007).

I really love getting out in nature. It forces me to even in the winter. I know I wouldn’t otherwise because I get cold so easily. It wakes me up when there’s a head wind of 39 knots or something; I just rug up, beanie on. I sometimes wish I could get carers to do it but it’s my dog, and it’s not fair to say, “you do it,” while I sit at home by the heater. You generally feel better afterwards: more awake and alive. Nice bonding time. In the summer it’s just a pleasure. It can be a bit meditative too: I wander along and every little donk [of my wheels] on the pavement … (CD3).
This is [MD] and me at one of the few local walks that is both wheelchair accessible and dog friendly. We did a full kilometre: good exercise for me and her. She enjoys getting out and it forces me to get out too which is always good. There's a lack of accessible and dog friendly facilities. When you have Mobility Dogs out for a walk you want them to have an enjoyable walk, not just a working walk (MD3).

For two Mobility Dog applicants the notion of a dog as an incentive to spend more time out in the community was high on their agenda of expectation. They both lived alone and perceived having to take a dog for a walk would provide the motivation to get out more, to counteract the feeling that their worlds were diminishing with progressive disability:

[Friend] and I go out every Friday. It's a chance for me to get out a bit. Because really, the only other place I go is church on Sunday, particularly now things have got harder for me. My life is becoming curtailed. I think by having a dog it's going to open up lots of avenues again. A dog needs exercise; well, I've got a great big park out there (MD5).

I would make an effort if I thought I should definitely go out right now and take the dog out for a walk. I've got lots of areas where I would go if I had a dog and that would be really good for me as well, because you can't live in a place this small and not want to get out once a day; you get cabin fever (MD6).

Although MD5 did not receive a Mobility Dog in time to complete the study in full, I visited one further time four months after he had received his dog. Certainly his expectation of spending more time outdoors had been realised:

We walk for a good hour: do about four or five ‘K’. The park here is all beautifully paved and also along the motorway there's a paved path. It's getting me outside which I hadn't been doing for a long time. Heading out has been good for me. It's too easy on your own to sit inside and decide it's too cold today, or I'm too tired: make some excuse to yourself. He's changed my life in many ways. Everybody says, "you're looking so much better."

Some participants recognised that both they and their dogs would benefit from more exercise, but struggled to manage their dogs outside the home. For participants in the CDG, this was, more often than not, because their dogs lacked training and were hard to control. Difficult behaviours included: pulling on lead; poor off-lead recall; and unpredictable reactions to other dogs and people:

She’s a nightmare on the leash, because she pulls really hard; it’s like water skiing when you walk the dog. We’re a bit naughty. I try to have a pattern of daily walks with her, I don’t always manage that. She loves it and we should, obviously, plus it’s a good habit for me as well (CD4).

I feel better ‘cause I’ve walked but walking up this hill now is a bit of a mission for me. If I walk round the block with her I’ve always got a walking stick with me and a leash. If we see another dog, she’s not shy of going at them but she’ll take me with her; if I’m not ready for it, then I taste what it tastes like to eat tar seal, it’s not the most pleasant. I’m certainly not as strong as I used to be. She’ll pull me over. If I see people coming up the same side of the road, I’ll cross ... going up through the bush, there’s no handrail to come back down the stairs, and no trees to hang onto (CD7).
Although CD10’s 70 kilogram dog walked sedately beside her, she admitted considerable difficulty exercising him when he was younger:

About 18 months, we were down the street and there were dogs on the other side and [CD] took off. He pulled me right out of the chair and I was sitting on the grass verge. The guy came over to help me and [CD] starts growling and showing his teeth … He’d get distracted by a cat and take off. I used to get stressed about it but now I don’t worry; I just let him go. He’ll come back eventually but when he was a puppy I could be out there for ages trying to get him back. It put me off taking him on the streets. He didn’t like people running past either; he’d jump up on people. I go to the park instead; you don’t have to worry because they’re off-leash.

Mobility Dogs, with the benefit of training, are more reliable exercise companions but there may be similar problems, especially in the early days of a partnership:

There’s still problems where he starts sniffing things, but he’s much improved and my control of him is much better. Still have a bit of problem when we approach other dogs. He gets quite excited and wants to say hello. Sometimes he ignores them – looks at them and keeps walking – sometimes he goes mad (MD1).

Also, in cases when the recipient is unable to maintain the level of training and/or the dog is not ideally suited as a service dog; this was evident in some of the MADT’s early placements:

I’m not going to take her to a cafe that I know there’s lots of dogs, because it will over-stimulate her. I’ll get cross with her and it’s really not her fault. She has that innate animal-based distraction; it’s not aggression, she’s just a very alert dog. So I’m not going to put her in that situation and I’m not going to put myself in that situation because I don’t want to resent her. And really it’s a reflection on my ability to keep up her standards (MD3).

5.2.3.9 Summary narrative CD6

The following summary narrative is an excellent example of a companion dog in the role of “best friend” and the primary motivator for a man with rapidly progressing Parkinson’s disease to get up and exercise. Shortly before the end of the study he had moved to residential care, without his dog. This narrative underlines time and transience in human-canine relationships.

Male, 68, Parkinson’s disease. Schnauzer poodle cross, 4 years. Moved to residential care.

I fell over about five times. I walked like a chimpanzee; that’s what my specialist noticed straight away. They say, “you see one person with Parkinson’s, you see one person with Parkinson’s.” I’ve only just realised that I don’t have a tremor. I was at a Parkinson’s meeting a few weeks ago and our field officer gave a lecture on the A-Z of Parkinson’s and she got to ‘T’ and said tremor: over 70% of people with Parkinson’s have a tremor. I didn’t take much notice then, three days later I thought, “I don’t shake, I might never shake.” And that was the first time I realised I wasn’t in the early stages of Parkinson’s. It’s a mental and physical disease; you can have a stupid brain and still be quite good physically. I can get on with looking after my head. I think what you used to be bad at, you accentuate in Parkinson’s. I never suffered fools, and I like being an individual, but I was never so rude. I used to be very direct but now I am so rude that people almost avoid me. I’m very, very snappy. My short-term memory is so bad I mark off my medication in the book. I have to take my tablets before I can do anything. I get very tired. I’ve given up competitive bridge this year. I used to be quite a serious bridge player; I represented New Zealand. But at a tournament you play for three to four days – 11 to 11 every day – and I couldn’t do that. The only reason I have a practice still is because people remember what I used to be like. I used to be quite erudite; I’m not a good accountant anymore. I finish at the end of this month actually.
I still do quite a lot of exercise and I think that’s incredibly important. I’ve been to physiotherapy since I developed Parkinson’s except the latest lot and that’s because I can’t stand the teacher and it’s better I don’t go. If I didn’t do certain exercises I would be quite crippled: one of them is just to move my head and various things that strengthen your legs, looking after your quads, which is quite important because I have to look after my knees now. I’ve got two false knees from rugby. Doesn’t make it easier but it’s part of life. I’ve got a hospital bed mostly because I can’t move around at night very well; I’ve got no strength in my arms and I can’t shift myself. I’m quite fat which is unusual for a Parkinson’s person. I do have trouble going to the toilet, but I love to eat whereas most Parkinson’s people don’t eat.

[Wife] and I have been together for over 20 years and this is our third dog. [Second dog] came along while [first dog] was still alive. [Third dog] came along while [second dog] was still alive. I think dogs teach other dogs. It was good for us because when we had to say goodbye – have them put down – it wasn’t so hard because we had another dog. He’s very important to us because he’s a family pet. He fills in that empty nest syndrome but more importantly for me, he gets me up in the morning. I hate getting up. I’ve always loathed it but now I’ve got Parkinson’s, I’m even worse. I want to go back to bed afterwards but I’m always up at half past 6, quarter to 7, taking him for a walk. He’s in fantastic shape. I’ve got this chucker with a ball and he goes and retrieves it. He tells me when he’s had enough; he says, “come on Dad, let’s go home,” and so I put him back on the lead and off we go. On the way to the reserve he drags me along: on the way home he tags along at my pace. On the way back we do the ‘top 300’; he knows we’ve got to do 300 steps flat out on the way back. I take him round the reserve two to three times a day if I’m home. About 4 pm he tells Mum it’s dinner time; he seems to have a clock built inside; he starts wandering around and nudging. Occasionally I’ll give him a scrap. He has toast off my plate, but I try to behave. I’m a bit of a softie; he licks my plate at night. As long as he’s in the room and can see you, he’s quite happy: as long as he’s part of the pack, part of the family. He’s a very intelligent dog but pretends not to be some of the time. You can trust him with anybody – dogs, cats, people – he just loves them all: marvellous with children.

When you’re first interviewed for a position [in the retirement village], you’re allowed to bring a pet. There are a couple of grand-puppies: people that have their daughters’ or sons’ dogs for the weekend and that seems to be quite accepted. Hopefully we’ll have a grand-puppy one day after he’s gone. He’s only a little dog so he’s got a few years to go yet.

**Six months later, CD6 has retired and recently returned from overseas holiday:**

The day I left, [wife] went to a function and I was picked up by my friend who’s got a taxi. That afternoon, when [wife] came home [CD] had peed on the floor. He never ever pees on the floor; he must have thought he had been abandoned. When I returned, it was like I hadn’t been away. He wagged his tail and said, “hello Dad.” The next day he expected me to take him out in the morning, and I was happy to. Animals love routine.

Without [CD] I didn’t get up at all. I felt so sorry for myself. I couldn’t get up unless there was a tour – then I’d be able to get up for it – but otherwise, psychologically, I didn’t want to get up. I felt pain, I felt constipation, I had a silly little cough which developed. Pain has developed because of various matters: I’ve got arthritis in my ankle and left knee, I’ve also got sciatica, badly, across my back. I’ve definitely got more dementia. My GP said, “the pain, it’s probably what we call dementia pain.” Maybe one day I’ll
lose it. I can’t understand myself, I really think I need a shrink. Plato once said, “all men are fools, but I’m less of a fool than most men I know because I know I’m a fool.” I recognise that I’m a fool.

I probably retired about a year too late. I didn’t feel at the time it was too late but I recognise it now. I’ve got very few friends. The people who have stuck with me are essentially the brighter ones as far as I’m concerned. I’ve been very lucky with my children; my oldest son is quite concerned for me. I know that my health and welfare are going down fast. [Wife] thinks she can look after me forever but I know she can’t. I’m only 69, I should be 104 the way I am. I’m quite young to be in a retirement village. It’s only because I’ve got Parkinson’s that I’m allowed in here ’cause the churn works on 70 year olds plus. Because I’ve got Parkinson’s I will probably die early, so they were happy to let me in at 65.

I sleep more. I got very nasty, very rude, with my specialist the other day and she was quite frightened of me. She said, “there’s nothing wrong with your Parkinson’s, it’s your inhibition – anger management – that has gone,” and she’s probably right. I abuse [wife] quite often; today we’re a bad couple. I’m shocking, I really am. It’s hard to grasp that. Specialist gave me tests of my strength and my ability. I had to do an Alzheimer’s test. I got 90/91 for my intelligence and recall and 3/10 for my spatial ability.

[CD] is the only thing in my life now. He is an absolutely amazing dog; he’s the only thing that motivates me. He’s not only company, he’s absolutely essential for me in the morning. He makes me walk, he makes me run, he makes me get up and do my exercises. Now we do the ‘top 200’ (Figure 5.15). I did 194 this morning – best ever – 197 is my usual. It used to be 300 bad steps, now it’s 200 good steps: I try to do less each time. As well as my 200 steps we have a little ball game: 50 metres there, 50 metres back. We’re up to 62 now. He decides when he’s had enough. He’s the bestest dog in the whole world, “aren’t you?”

Figure 5.15. CD6 stepping out.

Six months later CD6 has moved to residential care:
I’ve been here a couple of weeks. I’m still getting used to it. I am so persona non grata here. I went to a night for new people. People said, “where do you live?” and I said, “here, on the third floor,” and they didn’t want to know me. Not interested because they think I’m thick as two planks and I should be in bed. I don’t tell them anymore where I am; they don’t want to know anyone who’s on the third floor: unfortunately most of them have dementia, Alzheimer’s. The staff are bloody marvellous but the people are snobby and crusty.
I miss [CD]. I probably miss him more than I miss [wife]. I hate to say that, but I do. I see him sometimes twice a week. Tomorrow [wife] will come and see me and we’ll go for a walk over at the dog park. He’s allowed to come in here so long as he’s on a lead. He’s very well behaved. He comes in and says, “hello Dad” and I say, “hello mate,” and we’re good mates. He was so much part of my life. He still is part of my life. He’s a marvellous dog. I just miss him so much and the walking and the exercise you get when you’ve got a dog. That’s so important. Fortunately he’s good with [wife] so he’s totally happy with her, but he does different things with me: we walk and throw balls.

5.2.3.10 Entertainer

Someone or something that is amusing or enjoyable (Merriam-Webster, 2014).

“She is the cause of a lot of laughs; we do have a lot of fun with her” (CD3).

The role of the dog as an entertainer captures the amusing and playful aspects of interaction with dogs that elevate an individual’s mood. This role resonates with the ability of companion animals to contribute to enhanced psychological well-being and the ‘emotional work’ of chronic illness (Brooks et al., 2013). A key word here was “fun.” Dogs may be unwitting comedians, bringing levity and laughter to otherwise mundane or unpleasant situations:

You can be having a really shit day and just having them around can make you feel better. Like they’ll come up to you, wagging their tails with a giant toy in their mouth looking completely ridiculous and they’ll just be amusing (MD3).

There is a ready source of humour to be found in dogs’ idiosyncrasies and imperfections:

I’m not sure if she reads my clock or not, but I usually get a poke in the nose, or a rub of a nose up my arm. But, she’s a bit cheeky because she then stares at you until you open your eyes, and then once she knows you’re awake she tends to leap back in her bed and pretend she’s asleep – haha cheeky monkey – which I always think is quite amusing (MD2).

She’s just funny. I always make jokes about my dog. I call her “fancy pants” or “smelly bums”... she’s just easy to hassle and in a nice way. She doesn’t get upset by it, she plays along passively. We always call her “silly sausage” (CD3).

I’ll show you what he does. (To dog) "I'll give you another half biscuit." He does this a lot [dog up on his hind legs almost dancing]. People stop to watch this. He’s a bit of a character (CD8).

The theme of a dog as an entertainer was notably apparent in the photovoice component of the study. Several participants spoke enthusiastically about playing with, or watching, their dogs at play. Play is not only entertaining but also inherently rewarding because of the added pleasure derived from seeing a dog enjoying itself. Figure 5.16 presents a selection of photographs of dogs at play together with excerpts from participants’ commentaries.
That's playing with the hose. See how wet she is? That's her favourite game. You go outside in summer, turn the hose on, and she just goes nuts. You can actually hear her slosh when she walks 'cause she gets right up to the hose and tries to eat the water. As she walks round you can hear the water going squoosh squoosh. Funny. Look at her. She's saying "I'll get it" (CD4).

He's so playful. He pounces and growls and grunts. He's awesome to play with. He howls when he gets really excited. He'll shove things in your hand when he wants to play. We have this little squeaky ball, we could play tug with a towel. He's so amusing, he's crazy, so cool (MD7).

A tug-of-war game is going on with a piece of rope – trying to pull each others' teeth out. Or it can just be [CDa] at one end of the garden giving [CDb] a bark and the little one runs round the garden and goes back to him, then [CDa] will bark again, chase some more, his tail goes "yay, I've got him running." One good thing is the little one will play by himself quite happily with a toy. He'll go tearing round the garden at a hundred mile an hour. [CDa's] more sedate. He has his daft half hour every now and again; he likes to take a rope and just spin on the spot with it, beats himself up (CD9).

Aside from active play, simply watching a dog going about its daily routines may also mark the day and provide a source of entertainment. Opportunities for CD2 to venture outside his home were extremely limited. Apart from a short jaunt in his power chair for a daily espresso at the local cafe, he spent the majority of his days at home. During interviews his dog made several sorties to the front gate and he interrupted our conversation to explain what she was doing:

She'll go outside at quarter to three for the Alsatian that goes past here ... There's the Alsatian. Goes past every day. And she'll wait for it to come back now ... There's an old guy who walks a white dog up – he always waves out to me now – his dog stops at the gate and goes backwards and forwards until she sees him. She'll give a yelp, and [CD] will go screaming through here out through the cat door; they meet at gate, both bark at each other two to three times and then the other dog walks off and she comes inside as if to say, "well I've seen my friend today."
Another participant clearly derived great pleasure from pausing to watch her dog chase birds’ shadows when we were out walking:

She’s actually chasing the shadows, it’s really fascinating. It’s a very border collie trait to become obsessed by moving objects and shadows. It’s funny ’cause the birds will fly overhead and she’s not watching them, she’s watching their shadows along the ground. It’s gorgeous to watch. Sometimes when you’re standing here there are a couple of fantails who hang around, and of course fantails flit, and watching her chasing them it’s so funny, so funny ... look at this, it’s hilarious, it really is. She has become so focused, she gets complete tunnel vision and her tail’s going like a helicopter: flick, flick, I must keep these bird shadows under control (CD4).

Photographs also reinforced the close attention people pay to their dogs’ routine, often entertaining, behaviours:

Every day when I’ve finished my stretches and I start getting up for lunch, she lies on the bed and she gets all silly. She starts attacking her tail and doing this whole kind of showing off scene. Maybe it’s her exercise routine she has to do when I’ve finished mine? (CD3).

He’s a spoilt little toad ... When I come home he’s straight there – scratch, scratch, scratch – “I want a treat,” and then around 4 to 4.30 he’s at it again (CD8).

(Bottom of the refrigerator door is heavily taped with corrugated cardboard to protect it from scratching).

That’s his teddy. He takes the eyes out of them as soon as he gets them and brings them to me. He never breaks them [toys] up but as soon as he sees the eyes, they’re off! (CD6).
I do regular standing at the end of the day to keep myself exercised, keep weight bearing, blood flow etcetera. And [MD] likes to come up with me to investigate things, see what the neighbours are doing. Lovely bush view. Daily routine. That's the thing; [MD] becomes adapted to the daily routine (MD3).

Figure 5.17. Routine behaviours.

Although service dogs, jacketed, typically display a serious working demeanour, playing with a Mobility Dog is encouraged; it helps cement the bond of the working partnership and having fun, off duty, is an equally important part of the relationship: “She loves to play fetch – it’s her favourite thing to do in the world – or tug (MD3); “When we get home, I feed him, then he usually sleeps for a bit. After he wakes we’ll play” (MD7). However, play options for service dogs tend to be restricted as it is imperative play behaviours do not interfere with public access protocol and safety. Mobility Dogs are often tethered to a wheelchair so it is important that potential distractions in the environment are managed. For example, some dogs are more distracted than others by moving balls. MD2 reported that whereas her first Mobility Dog, a German shepherd, played fetch with her husband, her second Mobility Dog, a retriever, does not: “play is quite different between the two. [MD] has always been allowed to chase a ball; [new MD] is not allowed to chase balls ‘cause if she’s out in public she might try if someone kicked a ball.” A Mobility Dog may be a gentler, more appropriately playful, playmate than a companion dog: “I love [family dog] to bits but I can’t cuddle him; his kind of playful is rough for me” (MD7). This is likely to be a combination of breed, training and perhaps Mobility Dogs’ perceived heightened instinct of disability (previously discussed in the context of a dog as a caregiver, 5.2.3.4).

5.2.3.11 Tool/Assistive technology

One that enables another to achieve an end. To make (someone or something) able to do or to be something: to make (something) possible, practical, or easy (Merriam-Webster, 2014).

“As much as I don’t like calling a Mobility Dog a tool, essentially it is” (MD2).

The role of dogs as a tool focuses specifically on how dogs provide functional assistance to people with movement disorders. In this sense Mobility Dogs are a type of assistive technology to increase or maintain physical capabilities. Others have employed similar descriptions of dogs as: an adaptive strategy (Camp, 2001); practical/instrumental support (Collis & McNicholas, 1998); a means to mitigate
functional limitations (Rabschutz, 2007); and providers of assistance with everyday life (Brooks et al., 2013). While guide dogs can be described as a person’s eyes, Mobility Dogs are described as limbs: “my hands and feet” (MD4); “an arm or a leg” (MD7). Unsurprisingly, Mobility Dogs headline this theme, although I demonstrate that some companion dogs may fulfil this role. In contrast to inanimate assistive technologies – wheelchairs, hoists and walking frames – Mobility Dogs are described as positive, beautiful and alive:

A lot of things around disability are very negative. Often pieces of equipment are so ugly and cumbersome. [Husband] calls my toilet frame the space pod ‘cause that’s what it looks like, whereas a Mobility Dog is a beautiful looking being. It’s the positive side of disability (MD2).

I was in my early twenties when I got [MD] and it was something on the positive side of disability, it had an innate positive appeal to people. It wasn’t like I was getting a piece of equipment. This was a live interactive animal (MD3).

Functional assistance offered by a service dog may also be described as assistance with activities of daily living. MDG participants described everyday tasks and scenarios with which their dogs help them. For MD1 with Parkinson’s disease (5.2.3.12) his recently acquired Mobility Dog offered a sense of stability and helped him initiate movement and negotiate crowded spaces. In introducing ‘walker dogs’ as a new initiative, the MADT hopes to shift the perception that Mobility Dogs are predominantly for wheelchair users. I particularly noted MD1’s reluctance to give over his ability to his Mobility Dog; the dog had been trained to work wearing a bracing harness (offering increased balance and stability) but he initially opted for the lead. MD1 expressed concern that because he wasn’t using the harness his dog’s “skills are going to reduce.” This suggests that although people elect to partner with a service dog, there is tension between the functional assistance offered by the dog and fear of losing physical abilities faster as a result of relying on the dog. Others shared these sentiments:

It’s finding that balance, not giving up too much of my ability to the dog and saying, “actually I can still do that” (MD2).

I think that you tailor your Mobility Dog experiences to what are most practical. There’s an ideal situation and there’s reality and you find a nice balance somewhere in between. [MD] has all sorts of fancy tasks but what I need from her is quite specific. I don’t think she’s any less valuable to me for doing less things. She’s slotted into my mosaic of independence; there’s all sorts of avenues of independence and they all tie in together in a nice functional orbit. I think the key with a developing Mobility Dog relationship is you figure out where they slot; you don’t revolutionise your world round them (MD3).

For MD2, MD3, MD4 and MD7 – all wheelchair users – fetching items out of reach and picking up dropped items were the most frequently referenced tasks. People may be able to accomplish these tasks independently, but having the dog’s assistance enables them to conserve energy to redistribute to other tasks. Help with opening and closing doors, dressing/undressing, bracing (support when transferring to and from a wheelchair) and pushing pedestrian buttons was also reported. Figure 5.18 shows a selection of Mobility Dogs’ tasks from the photovoice assignment. The role of a dog as a tool is closely linked to that of an empowerer: in many everyday situations having a tool to call on enhances feelings of self-efficacy and independence:

Specifically, it’s when I drop things under the car seat or my desk. It’s much easier for her to scramble around than it is for me. She’s energy saving: it doesn’t mean I can’t do it, it means I can redistribute my energy ... She takes off my shoes and socks and gives them to me ... It’s difficult for me to get up and get the remote if mum goes downstairs and forgets she left the TV muted ... She also braces when I lose my balance. Coughing takes a lot out of me so I will have [MD] stand next to my chair, I will hold onto her and use her as a balancing point; she’s got very
good at that. And I’ll balance myself on her as an intermediary step between getting from the floor to my chair ... The key thing with Mobility Dogs is you’re responsible. Rather than having to find somebody, you are in charge: you’ve got a sense of control (MD3).

My level of fatigue has been minimised by him picking things up and carrying things round. It’s made a huge difference. He does it automatically (MD4)

I just love that I don’t have to rely on someone to pick up something for me. It’s awesome dropping something and not having to wait ... I took him for a walk and I dropped my phone. It was so nice to have him there to pick it up and give it to me (MD7).

MD2 was one of the first recipients of a Mobility Dog and the first to retire a dog and embark on a second partnership. The narrative below focuses principally on the functional assistance offered by her first Mobility Dog:

Within three weeks she’d shown her worth. I fell at home in the hall. I asked her to get the telephone, she took a few steps towards the lounge and came back. Then I said, “no, go get the phone,” and she did. I could ring for help. I sat there in awe of this dog thinking, “if that’s all she ever does for me, she’s worth her weight in gold.” Then I got her to get my slippers and dressing gown so I could keep warm, and she curled up next to me. My husband came home and I was not the usual blubbering mess that I normally was. I had another instance when I fell in a bathroom and was able to get [MD] to get out of the door and get help.

When I was at university she would press pedestrian buttons: often pedestrian buttons are on those little islands in the middle of the pavement which, when you’re in a wheelchair, you can’t reach. She would often do the electronic door buttons through the university. The biggest thing she does for me is pick things up. I drop things all the time: keys, pens. It’s often the little things that are the hardest to do and the more time consuming. I’ll have a shower and [MD] will invariably be waiting to pick up the bathmat. If I’ve dropped anything on the bathroom floor she usually picks it up and brings it to me. I’ve got a dog now that’s quite intuitive and does certain things without me asking because we do them all the time; she’s got used to my routines (MD2).

However, a word of caution: because the task training makes for eye-catching images of service dogs seemingly executing tasks – including loading and unloading washing machines – with almost robotic precision, people may harbour unrealistic expectations. It is not simply a matter of issuing the requisite commands: it is about caring for the dog, establishing a bond and maintaining the training. Several Mobility Dogs’ recipients emphasised that their dogs are not robots and cannot always be relied upon to behave and respond appropriately:

It’s not always been plain sailing but then she’s a dog. And that’s what I think sometimes people forget; they’re not robots, they’re actually dogs. They still have needs, and off-days, and naughty days and you just have to take that all in your stride (MD2).

It's not like you can get cookie cutter moulds for dogs. They’re not super dogs; they’re not super robots. They’ve got all the dogs’ instincts … Often people will view the dogs as super dogs and super vehicles to independence but really, they’re just dogs who are highly trained (MD3).

For participants with companion dogs the notion of a Mobility Dog as a tool was met with mixed reactions. Some stated an immediate benefit in picking up dropped items:

It would be good to have a dog to pick things up when I’m at the shops and I drop my phone or something. Usually it’s the public that helps me out. If I tried doing anything myself it would be a bit dangerous. If I lean out to get something, I would end up out of the chair: upturned turtle (CD2).

I can see the attraction of having a well behaved dog, let alone the fact that he may be able to pick something up for you (CD10).

Others recognised that Mobility Dogs are in short supply and therefore people with more serious conditions and/or less human support are more deserving:
I don’t need a Mobility Dog. I’ve got my snippers and I’ve got two children [to pick things up]. Personally, I think Mobility Dogs need to go to people that don’t live with other family. There are lots of youngish people with muscular dystrophy that live alone; seems to me they are prime candidates: some of the stories of getting stuck, something happens to them, and they are completely alone. In a situation like that, how fabulous to have a dog, whereas I don’t feel like I’m ever in that situation. I think I’d be a complete fraud to have a Mobility Dog (CD5).

However, for some participants the overt statement of a Mobility Dog as a tool at their side did not fit comfortably within their framework of independence. MD3 eloquently summed this up: “Adding a service dog automatically projects disability; it’s a living, breathing stigma almost, if you’re of that mindset. It’s never particularly bothered me because I never wanted to pass.” CD10 shared these sentiments and also perceived that the Mobility Dog as a tool is a relatively small part of its overall role: “I know what a Mobility Dog is and I know a lot of the time it doesn’t really do that much for you; it’s just like having a dog. I wouldn’t like it; Little Miss Independent wouldn’t look very independent with a jacketed dog.”

There are also those who, from an animal welfare perspective, are not keen on the concept of assistance dogs. CD3 was of this mindset until she had the opportunity to talk to a Mobility Dogs trainer and learnt that dogs who fail to show a ready willingness to do the work are released from the programme: “I used to think I wouldn’t like them to be a working dog but I see it different now. They’re doing something they love, but I still believe dogs need to be dogs and they have to have their part every day where they are.”
Figure 5.18. Mobility Dogs executing tasks.
CD9 lived with two companion dogs also capable of fulfilling this role. Strictly speaking these dogs did not fit the criteria for this study because they were the responsibility of CD9’s wife who, for many years, has trained dogs to compete in obedience and agility. I recruited this participant expressly for the purpose of including companion dogs with service dog characteristics. Both dogs displayed exemplary behaviour during my visits: “To me, the more training you get into your dog, the more freedom your dog can have. Pups are fun, but people don’t see the hard work ahead and the dog takes over” (CD9’s wife). These dogs were the only dogs in the study which slept outside: in kennels during summer and in the garage in cooler months. They were invited into the house so I could meet them. They were immediately placed in a ‘down stay’ on their floor mats and remained unobtrusive throughout the interview (in the same way as service dogs are expected to settle unobtrusively in public spaces). I was informed that the pup was “still quite defiant” but the older dog was “a very gentle dog” and has assisted CD9, with Parkinson’s, to initiate movement and walk more fluently:

We have found that when [husband] gets into tiny steps or a freeze, if I give him [CD’s] lead, [CD] just seems to adjust and take a steady pace with [husband]. The dog changes his attitude altogether and just gently walks alongside. [Husband’s] more worried about what the dog’s going to do than what his feet are going to do, I think. He starts walking again; seems to trigger him to take a bigger step. Sometimes he’ll try and go for a lamp post, but I’ve tried to train him that you don’t have to visit every tree or post (CD9’s wife).

When I’m on form I go quite well but other times it’s a struggle; I can be stuck on the spot then I take the lead and I’m off. He doesn’t tow me, he doesn’t pull. I’m going to be aware that I’m not tripping over the dog, so it takes a bit of my concentration to do that (CD9).

I was surprised at the brisk speed that CD9 – holding this dog’s leash – maintained during our walk around his neighbourhood, in contrast to his slower shuffling walk about the house. The dog’s training was evident: he did not pull on the lead, sniff or toilet frequently along the way.

![Figure 5.19. CD9 walking dog.](image)

In addition, CD9’s wife was also training the young dog in retrieval tasks, to fetch and pick up dropped items for her husband:

We have been working on getting [CD] to pick things up when we drop them. It’s a bit hit and miss still. Sometimes he thinks, “oh goodie, new toy,” and comes up with a pair of glasses but he’s got a very gentle mouth and he will give them back. We do a trade: glasses, treat. Keys he picks up by the leather, plastic he’s not keen on. I’ve got him carrying a letter from the post box ... Some things he’s not getting his mind round, like pieces of paper, and he sometimes has difficulty with smooth surfaces, like a clam shell cell phone.
In her own words this task training was a “work in progress” but nonetheless demonstrated that functional assistance tasks are not solely the domain of Mobility Dogs. Similarly, CD3 spoke fondly of a past companion dog whom she believed had the qualities of a service dog:

My [previous CD] could easily have been a Mobility Dog. She was not only bright enough but really wanted to do things for me, and really adored me. She had about 32 commands ... She was really intuitive. Like I would say to her, go on over to the other side of the bed and she’d go over. We’d park, open the back door, and I’d say, “go round to the front of the car” and she’d go round and sit and wait for me. She just knew what needed to be done with me.

Evidence of companion dogs with service dog characteristics has potentially important implications for service dog organisations: can these dogs also be assessed for public access rights for people with diagnosed movement disorders?

5.2.3.12 Summary narrative MD1

My final summary narrative follows the MADT’s first Parkinson’s partnership from a priori expectations to 12 months post-placement. The primary purpose of this dog was as a “tool” to assist with balance and stability while walking and also to initiate movement during a freeze in gait. It also illustrates the adjustment period that typically follows a service dog placement; adjustment in this case was perhaps more difficult because MD1 had not lived with a dog before.

Male, 63, Parkinson’s disease. New Mobility Dog placement.

I was diagnosed in 2002. I was trying to reach out with my arm and take something out of the freezer, and I felt my arm was just not sort of moving smoothly; it wasn’t painful, it just wasn’t a smooth movement. I never told my work colleagues. I was working in a knowledge job where you use your brain rather than your brawn. The danger that I saw was people would say that’s the brain disease and I wouldn’t be able to do my job. For the first few years I didn’t take medication; there’s a fall off in effectiveness over your lifetime of taking the dopamine drugs: as long as you can hang off and the lower the dosage, the better. I’ve never had quick-release (medication); I’ve never felt the need for it, but there are times in the day when I have less energy and less ability to move: things just seem slower.

I do feel better when I’ve done some exercise. I try and get to the gym most weekdays. I’ve been to the gym for the last five years when I became aware that one of the things with Parkinson’s is that muscles stiffen up and it’s important to keep them flexible and moving. Round the home, I can cope with most things without too much difficulty but my balance is not good; anything that requires two free hands, I have difficulty with. I need to have something to lean or brace myself against. Some things are a bit dangerous: taking a tray out of the oven. The most difficult situations are moving through crowded spaces, and I find it near impossible to stand at a function like a cocktail party; standing with something in your hands and talking. I can’t stand still in that situation, and I can’t hold a drink and something in each hand. I don’t approach those situations with as much joy; I view it with trepidation, so I would be less inclined to take part than a normal person would, or than I would have otherwise.

It’s particularly difficult to move when I first start, like if I’ve been sitting and I stand up. I need to walk around a bit to get sort of rhythm, movement. One situation that’s particularly difficult is getting out of a cinema or theatre: you’ve been sitting for hours, you stand up, and you have to walk up the aisle; there’s people all round so if you stumble you’re going to run into someone, trip over, or fall over. Another situation where my brain goes to mush, is crossing the road. It can be the quietest road imaginable: I
can see far enough, and I can tell whether there’s cars coming, but my brain’s telling me, “this road is dangerous, be careful” and it won’t let me get started. That’s where I’m hoping that a Mobility Dog will be particularly helpful because I can say to him “go” and he will lead me off.

I’ve had a cat in the household for a good deal of my life. They’re good company. I’ve never had a dog, ever. I don’t know anything about how to care for dogs, how they behave, or how I should treat them. It’s a complete learning experience. With cats they’re sort of independent. From my observation of other people with dogs, they stick with you more than cats. I’d like my independence a bit; when I’m moving round the house from room-to-room, I’d be a bit uncomfortable if he was trailing round after me all the time. The other thing I’m a bit concerned about is when I go out, I might not always want to take a dog with me, and I don’t know whether that’s acceptable. I’ll have to work out whether it’s advisable, desirable, or possible to have him with me or not; I don’t want to make it dangerous for the dog.

The dog that I’m likely to get is a good dog. I’ve met him a couple of times and been impressed with his abilities. We’ve been for walk in the neighbourhood for about an hour; he adjusted to my pace, or I adjusted to his pace. We worked pretty well; that was without any training together. He did trip me up once, but that’s hardly his fault; we’re not used to working together and there were obstacles: overhanging trees and a rubbish bin on the side of the road. We’re going to have to get used to dealing with those sorts of things.

**Six months post-placement:**

Placement was pretty much what I expected. Two weeks of training with [trainer], but I was a bit slow learning because of my lack of experience with dogs. We did a test to make sure I was okay to provisionally work with [MD]. That was okay, but then we had a final test which we didn’t pass because I was keeping [MD] on too tight a lead and we weren’t working together well enough. [Trainer] left it another month and retested it. I did improve. There’s still problems where he starts sniffing things, but he’s much improved and my control of him is much better. Still have a bit of problem when we approach other dogs; he gets quite excited and wants to say hello. I’m becoming more aware so I’m more forearmed and much better placed to react to it.

I found it hard the first few months, but we’ve settled down to much more of a routine. [MD’s] got more comfortable in the environment. It’s taken me a while to get used to having a dog, and I found it off-putting that he followed me around everywhere, but I got used to it. I’d like to have more opportunity to leave him, but he’s unwilling to do that at the moment. He very much likes to be with people and if you put him outside he’ll cry outdoors to come in. We put him in the crate once while I was out the front doing the lawns; he was there for about 20 minutes but that’s the most that I’ve left him. We were thinking about puppy-minding but the Mobility Dog people aren’t very enthusiastic about that sort of thing: like doggie daycare, day trips for dogs. Some of the time he’ll leave us and go upstairs and sit in the sun. If there’s anything happening he’ll come down and see what’s going on. If you need him, you just call and he comes immediately; he’s pretty alert as to what’s going on, even when he’s asleep or resting. [MD] comes up with me to the gym and sits there quite happily. People come and say hello to him ‘cause they’re always keen to talk to him. People are always very friendly and supportive. Complete strangers come up and say hello. I’m quite comfortable with that. They ask what he does for me.
I’m using the leash at this stage. I’m conscious that I want to keep my own strength and mobility up independently with the support that [MD] gives. A lot of the time I can walk okay and basically if I’ve got someone, something, beside me that I can look to for support, that’s sufficient. I want to be able to move as much as I can on my own. I don’t think I need the firmness of a harness, at this point; having psychological support beside me is sufficient. Leaving the cinema I support myself on [MD] as I get started, and we get away, up to speed, and it does help. I generally wait ’til other people have gone out, so I have a not so crowded space to work in. He’s been to a lot of films and always been very good. [MD] makes it much better crossing the road because I just say to him, “go” and he takes off. I’ll be interested to see how I cope overseas without [MD]. I think I’m going to have to take a walking stick. [MD] fulfils that role here. [MD] is going to be a bit of loss. I’ve gradually got used to him and he’s company; I’m not going to realise what I’m missing until I’m away. I’m going to miss his company and his support; he’s company that I wouldn’t have otherwise, and he’s good company.

12 months post-placement:
My Parkinson’s probably got a bit worse. Things change quite quickly in a day. I’ve got some other medication now if I’m losing my energy; it’s quicker acting. I keep some of those with me.

It was good to get back and see [MD], to get back working with him. He was pleased to see me. I thought there would be a longer period of readjustment for him, and for me, but we slotted in pretty much as though we hadn’t been away. I thought there might be a period where he was a bit cantankerous because he thought I abandoned him. It gets better all the time; I get more used to him and he probably gets more used to me. He gets away with too much sniffing sometimes; he’s especially bad if we go somewhere new. Generally he doesn’t take too much notice of other dogs, but if there’s one that’s particularly aggressive he will react to that. It’s not a very comfortable situation but it doesn’t happen that often. If I’m walking along the road and I see someone coming I say, “no” and he’s fine. I make a decision: if the dog’s well under control I keep going, otherwise I stop – get him sitting – or cross the road. He keeps me going because I tend to stop on the road and panic.

Figure 5.20. MD1 with Mobility Dog.

He’s very relaxed; he’s got a great temperament. A lot people don’t even realise he’s at bridge. A woman put her handbag down on top of him and he didn’t move a muscle. She played two games and went to pick her handbag up again and said, “oh there’s a dog there!”.

Sometimes I like to be free of him, just for a little while. I have a lady who does puppy-walking. [MD’s] been out with her and some dogs for the odd day to give me a chance without the dog, because I’m still
getting used to having a shadow following me around. He is a bit of a black shadow about the place but we know other people who’ve got Parkinson’s with a (companion) dog and it’s more complicated: you can’t take him into places.

I went to the MADT graduation and conference weekend. It was very good to see other people and how they related to their dogs; to get an insight into how other people were using their dogs. You think everyone else’s dogs are behaving perfectly, and they’re not. They all have their moments. That’s a reassuring thing to know that you don’t appreciate when you’re on your own.

[MD] provides two things: company and support when I need it out in the world and walking; coping with situations that I find difficult: crossing the road, stairs and crowded spaces. I don’t know whether I should try the (bracing) harness again, or use it some of the time? At the moment I haven’t made a decision.

5.3 Summary

At the outset of this thesis I stated that I am predisposed to the view that dogs can be used as an intervention to foster positive life experiences in people and enhance their QOL. My focus in this chapter was to compare effects of companion dogs and service dogs (Mobility Dogs) on QOL in people with movement disorders. I proposed that a prospective longitudinal study design would bring valuable insight to relationships between people living with movement disorders and dogs over time. Indeed, my inclusion of four extended summary narratives spanning 12 months highlighted the importance of accommodating time in such studies, from the multiple perspectives of time in: disability (the trajectory of living with long-term unpredictable and progressive conditions); ageing (in both human and canine participants); and partnership with a service dog (from placement through the dog’s lifespan to retirement).

My thematic analysis described eight roles of dogs that potentially enrich QOL and increase juncture between disabled bodies and environments: companion, protector, caregiver, icebreaker, empowerer, motivator, entertainer and tool/assistive technology. In these roles dogs variously facilitate, mediate and enable health and well-being. Undeniably there are challenges and drawbacks inherent in both categories of dog but on balance it is notable that – despite financial demands, canine imperfections and failings – not one participant would willingly relinquish their dog. How and to what extent dogs impact QOL in people with movement disorders is complex and resides in individual and environmental characteristics: dogs fulfil different roles, for different people, across different environments. Overall my findings indicate that Mobility Dogs offer more avenues than companion dogs to enhance QOL. The key advantage of Mobility Dogs is that they come ‘pre-loaded’ with training in obedience and specialised tasks, tailored to individual needs. This training, coupled with public access rights, increases the potential of Mobility Dogs to fulfil more roles across a wider range of environments than companion dogs. It comes as no surprise that Mobility Dogs were more likely to be described as a “tool” (assistive technology) than companion dogs as this is effectively how they are ‘sold’: dogs trained to provide assistance with activities of daily living. Mobility Dogs may also have an edge as protectors, caregivers, icebreakers and empowerers.

Dogs offer companionship, security, a sense of purpose and an occupational role (of care and nurturance), social connectedness, fun and a reason to exercise and/or go outdoors. Five interrelated factors distinguish Mobility Dogs from many companion dogs: training, behaviour, public access rights,
size and ‘ownership’. Companion dogs may be any size or breed and can be acquired with relative ease. There is no requirement to maintain proficiency in dog handling throughout a companion dog’s life. Companion dogs are unlikely to be highly trained and are more prone to undesirable behaviours including: incessant barking, pulling on the lead, jumping up and aggressive responses to other dogs and people. I am not inferring that Mobility Dogs are impeccable in these respects but, by definition, they are highly trained and amiable. Some participants exhibited a distinct preference for small dogs, perceived to be more practical in terms of cost and care. Small dogs also afford a specific form of close companionship as ‘lap dogs’. ‘Lap dogs’ may slip below the public access radar which means that wheelchair users successfully access some public spaces with these small dogs up and off the ground.

Mobility Dogs are medium to large dogs which generally require more exercise, financial commitment and outdoor space than smaller, companion dogs. Application for a Mobility Dog is a lengthy process, and approved applicants face an uncertain wait, of up to two years, for a dog. Recipients are required to source funding to cover the cost of team training/placement; this is typically in the order of NZ$4,000. The service dog model is underpinned by a responsibility not only to oversee the care of the dog but to maintain training standards; it is crucial that Mobility Dogs (clearly identified with branded service dog jackets) behave appropriately in public situations. The challenge is to transfer the command of a Mobility Dog from physically able, competent dog trainers to people living with physical disabilities who may have negligible past experience with dogs. The development of an effective service dog partnership takes time. The acquisition of new knowledge and dog handling skills may be rewarding, but the early months of a new placement may also be tiring and frustrating: working out how a Mobility Dog best fits into the reality of everyday life. There may be tension in not wanting to give over too much ability to the dog, to retain as much mobility and independence as possible. Recipients of Mobility Dogs are under the umbrella of the MADT with access to ongoing support throughout the working life of their dogs. However, remaining guardians rather than ‘owners’ of these dogs may trigger feelings of anxiety about losing public access rights, or the dog, if things do not go well.

Picking up and fetching items were the most commonly reported functional assistance tasks. Mobility Dogs also assisted with opening and closing doors, nudging buttons, paying over the counter, carrying shopping, bracing support for transfers to and from a wheelchair, initiation of movement and stability when walking. The assistance provided by Mobility Dogs strengthens a sense of self-efficacy, of control over situations that might otherwise require outside intervention. In the eyes of others these tasks may appear trivial but little things add up, lessening reliance on others. Some participants reported that they were able to undertake these activities independently but help from the dog saved energy which could be distributed to other areas of life. Notably my study identified companion dogs – trained in obedience and agility – with some of these skills which raises the questions: how many companion dogs with service dog characteristics work in our communities? And can these dogs also gain public access rights?

With reference to conceptual models of QOL (3.2) both categories of dog are likely to influence biological and physiological variables via everyday interaction with dogs related to reduction in human physiological indices of cardiovascular stress and activation of the oxytocin system (2.3). A key benefit of dogs for human health and well-being is linked to exercise (2.3.1): both the physiological and psychosocial benefits of walking a dog and being outdoors. Two examples of dogs promoting exercise were the ambulant participants CD1 and CD6: CD1 credited her recovery from a stroke entirely to her
dog, and significantly maintained her daily walking regime despite her dog’s unexpected death; CD6 had established a regular walking routine with his dog which encouraged him to take bigger steps, rather than his smaller shuffling steps typical of Parkinson’s disease. Taking a dog for walks also stimulated wheelchair users CD3 and MD5 to go outdoors on a daily basis.

Conversely, walking a dog may present extra challenges for people with movement disorders. With compromised mobility and strength, it can be difficult for them to control a dog, particularly a dog that lacks training on a lead and/or which displays aggressive behaviours. There is a danger of being pulled over or tipped out of a wheelchair and therefore people may delegate dog-walking which means they do not personally reap these benefits. Mobility Dogs are trained to match the pace of their partner, ignore distractions in the environment, and come when recalled in off-lead environments. In practice this may depend on the ability of the recipient to maintain this level of training, but in principle Mobility Dogs promise a safer and more pleasant walking experience than many companion dogs. The MADT commenced training of ‘walker dogs’ in 2012 when I first proposed my Parkinson’s-specific research question. The case study included in this thesis suggests that in the first year of placement this dog offered more psychological than physical support. Initially, MD1 was reluctant to hand over more ability to his dog than necessary and deferred the decision to employ a bracing harness. I interpret this reluctance in the same way as he was reluctant to increase his medication: that is, until absolutely necessary. This illustrates that although Mobility Dogs come equipped with an array of tasks it may take time to decide what works best in everyday life. What is required of a Mobility Dog is also likely to change as a condition progresses. It was salient that MD1 felt that, in the absence of his dog, he would need to take a walking stick when travelling overseas. His dog also helped him negotiate crowded public spaces, and initiate movement when crossing the road and after sustained periods of sitting. CD9, also with Parkinson’s, found he was able to walk more briskly and fluidly holding the lead of the older, more sedate, companion dog (trained in obedience and agility). He felt that ‘walking a dog’ diverted his focus off the mechanics of walking. This indicates that some companion dogs also play a part in stabilising and facilitating movement.

However, inclement weather and inaccessibility of local environments (for example, uneven footpaths and lack of dips in kerbs for wheelchairs) may present insurmountable hurdles to walking a dog for some people with movement disorders, not to overlook the civic responsibility of ‘picking up’ after a dog which can be tricky with restricted mobility. It is true that meeting the needs of dogs – particularly exercise – may add to human caregiver burden. In this study participants reported the unpredictability of days in bed and hospitalisations: one participant spent a number of weeks in respite care and another moved to residential care. These scenarios present a problem for people living on their own with little outside support, the very people who may most benefit from a dog. In some living situations family, friends or caregivers may willingly assist with a dog’s care and exercise. Dogs, in return, may ease family and caregiver relationships, offering a common focus aside from health and disability.

The role of a dog as a caregiver appears particularly salient for people living with chronic conditions. Dogs, insofar as they are able, are credited with getting care right. They have time, and are described as an attending presence, non-judgemental, good listeners, intuitive and empathetic. Partners of Mobility Dogs tended to regard their dogs as more sensitive to their needs and moods than companion dogs. However, some participants with companion dogs, likewise, described their dogs in this way. Mobility
Dogs are mostly retrievers, breeds recognised to be people-orientated, calm and reliable which perhaps enhances the perception of an especially agreeable bedside manner.

Mobility Dogs are not guard dogs but public access rights extend feelings of personal safety into a wider community than companion dogs. For example, people feel less vulnerable in the city with a medium to large sized dog at their side as a deterrent to opportunistic theft or assault. The ability of a Mobility Dog to fetch a phone and alert-bark in case of an emergency furthers a sense of security. Mobility Dogs may also relieve a little of the burden of care from others who feel more secure leaving a person with a Mobility Dog – capable of fetching a phone – than with a companion dog, or alone.

Dogs are well recognised as icebreakers or conduits to social inclusion (2.4). For people with movement disorders a dog is normalising and shifts attention from wheelchairs and physical impairments. Both companion dogs and Mobility Dogs fulfill this role but public access rights and service jackets render Mobility Dogs conspicuous in the wider community. This ‘jacket effect’ is a boon for social inclusion: eliciting smiles, greetings and longer conversations with strangers (2.7). Generally this increase in social acknowledgement and interaction is welcome and fosters a sense of connectedness to communities. However partners of Mobility Dogs feel a responsibility to be good ambassadors for the Trust so the attention can be exasperating when people are pressed for time. There may also be difficulties managing public interference with service dogs: mostly unsolicited patting and inappropriate feeding. For some companion dog participants, Mobility Dogs were perceived as more of a ‘stigma symbol’ overtly identifying a person as less independent. It is probable that a very large companion dog (a Leonburger in this study) – or perhaps any unusual breed – may catalyse social engagement with the public in a similar way as a Mobility Dog, although the effect will be restricted to fewer environments due to lack of public access. Unsurprisingly, companion dogs that display aggressive tendencies towards other dogs and/or people are unlikely to mediate positive social interactions. An unexpected finding in the social domain was the extent to which dogs also break the ice in the virtual world. For people with restricted mobility, the internet has greatly expanded opportunities to connect socially from home and, as observed in real world communities, dogs offer a comfortable point of online connection with others.

Both companion dogs and Mobility Dogs provide opportunities for fun, often realised through play. As entertainers, dogs elevate mood. There is simple pleasure in watching dogs enjoying themselves and humour to be found in dogs’ imperfections and idiosyncrasies. Mobility Dogs as playmates may be more gentle than companion dogs, but some play activities may be restricted (for example, retrieving balls) so as not to interfere with training and public access behaviour.

Although public access rights increase the ability of Mobility Dogs to provide physical and psychosocial support across a wider range of environments, public access may not always be in the best interests of the dog. Situations where the physical environment is barely accessible for a wheelchair may be more challenging – unsafe even – with the addition of a dog. There is also a need to be mindful of cultural considerations around dogs in some environments, and that inclusion of dogs in social events and leisure activities may not always be appropriate, even if the dog has access.

Overall my findings suggest that the impact of dogs on QOL in people with movement disorders cannot be ignored as part of the long-term management of these chronic conditions. Companion dogs and Mobility Dogs can be described as holistic interventions to enhance QOL in people with movement disorders. Both categories of dog fulfil a variety of roles to impact positively on health and well-being.
and particularly enhance an individual’s functional status across physical, psychological and social domains. Mobility Dogs appear to offer more avenues to enrich QOL in people with movement disorders but the service dog model does not suit everyone who chooses to share their life with a dog and, for them, companion dogs may be equally effective. I discuss implications of these findings for the design of future large-scale studies, the long-term management of people with movement disorders and service dog organisations in Chapter Seven, but first I assess the overall feasibility of my study.
CHAPTER SIX
ASSESSMENT OF FEASIBILITY

“One of the advantages of conducting a pilot study is that it might give advance warning about where the main research project could fail, where research protocols may not be followed, or whether proposed methods or instruments are inappropriate or too complicated” (van Teijlingen & Hundley, 2001).

This chapter assesses the overall feasibility of my study to compare effects of companion dogs and Mobility Dogs on QOL in people with movement disorders. Guided by the frameworks of van Teijlingen et al. (2001) and Thabane et al. (2010) (outlined in 4.2.1), I review my experience with the process and management of this research including: the recruitment and retention of participants; the appropriateness of methodology, methods and data collection tools employed; ethical considerations; and my position in the study as a past employee of the MADT and partner of one of the Trust’s canine ambassadors. I also consider my key preliminary findings and whether they indicate in practice the comparative ability of partnering with a Mobility Dog versus a companion dog to support QOL with a movement disorder.

6.1 Overall process and management

6.1.1 Recruitment and retention of participants

My research proposal was approved with five participants in each of the two study groups. However, I deliberately over-recruited to ensure that sufficient participants completed the full year. Participants were recruited via a variety of advertising media (Table 6.1). Recruitment of the MDG was relatively straightforward as I already had an excellent working relationship with MADT personnel. Researchers without this prior relationship would first need to establish credibility with the service dog organisation concerned. The main challenges in recruiting the MDG were the small pool of potential participants from which to draw in the greater Auckland region, and uncertainty as to whether approved applicants on the waiting list would receive a Mobility Dog within the timeframe of the study. Once it became clear that two of my initial MDG recruits were unlikely to receive dogs, I wasfortunate to recruit one more participant who was guaranteed to receive a dog. However this delay extended the completion of my fieldwork by six months.

The most effective means of advertising the study to the CDG was via direct communication from the societies offering support to people with specific movement disorders: for example, the MS Society and Parkinson’s Auckland. I received two further responses to the MS Society e-news, but deemed these people ineligible due to communication difficulties over the telephone. In hindsight, I should have included the ability to participate in in-depth interviews in the eligibility section of the advertisement. In a future study I would also screen for alcohol and drug abuse. CD7 presented a complex case of two movement disorders – cerebral palsy and MS – and alcoholism. Although this added breadth to the experience of living with long-term physical disabilities it was potentially confounding in the context of a study focused on movement disorders; CD7 acknowledged that it was difficult for specialists to pinpoint what contributed to his deteriorating movement and propensity to fall.
Contrary to expectations, all human participants stayed with the study for 12 months although three were unable to complete it in full owing to circumstances beyond their control. From my perspective this continuing involvement suggests that the participants enjoyed being part of the project and did not feel overly burdened by the research process. Placing the photovoice assignment between the second and third interviews might have assisted with retention, insofar as participants were required to meet with me for a third time to see and discuss their photographs.

My recruitment of companion dog participants lacked the breadth of the MDG in two areas: age range and duration of present relationship with the dog. Mean ages, at baseline, of the MDG and CDG were similar (48.7 and 49.3 years respectively). However, whereas the MDG spanned 45 years (21 to 66 years), the CDG was more homogenous spanning 28 years (40 to 68 years). And, although I achieved a wide range of Mobility Dog experience – from waiting list through to retirement – I was less successful with the CDG. I had hoped to recruit some CDG participants on the cusp of acquiring a dog because a tricky adjustment period often follows placement with a Mobility Dog. Although some members of the CDG spoke of past difficulties with puppies, I would have liked to follow prospectively some people with new companion dogs to compare experiences over these early months. To evaluate the efficacy of the two categories of dog as a QOL intervention in a future study, the richest data – in terms of change over time – could be expected from participants who commence the study without a dog.

Recruitment for a large-scale study of this nature in New Zealand is unlikely to be feasible in the foreseeable future. As noted (1.3.3.1), a rigorous study involving service dogs will ideally source all dogs from the same organisation or at least organisations similarly accredited on international standards. The MADT is presently the only ADI accredited service dog organisation providing service dogs to New Zealanders with physical disabilities and currently places 10 dogs per annum (not all of which are full service dogs). In comparison the world’s largest assistance dog organisation, CCI, graduated 254 teams in the United States in 2013 (CCI, 2014). Although it is not clear how many of these teams comprise full service dogs for people with movement disorders (this figure includes unspecified numbers of hearing dogs, skilled companion dogs and facility dogs) the potential pool of research participants is obviously
greater. However my preliminary findings suggest other related areas that could be researched in New Zealand. These are discussed Chapter Seven.

6.1.2 Appropriateness of methodology and methods

6.1.2.1 Longitudinal study
Clearly, studies of relationships between people with movement disorders and dogs are complex. The combination of participants living with unpredictable and progressive conditions and a live intervention (dog) increases the likelihood of individualised experiences over time. Therefore the 12 month longitudinal component to my study was a strength of my predominantly qualitative research design. Few published studies of service dog partnerships have taken time into consideration; exceptions being Allen and Blascovich (1996), B. W. Davis et al. (2004), Rintala, Sachs-Ericsson and Hart (2002) and Rintala et al. (2008). One-off semi-structured interviews would not have elicited the same depth of data. CD1 is a good example: in the first interview she was adamant she would never acquire another dog; at 6 months she was devastated when her dog died unexpectedly; and at 12 months she anticipated acquiring a new dog. The study demonstrated that researchers need to be prepared to manage sensitive situations, such as this death of a dog. The 12 month period in my study was the longest follow-up duration that I could accommodate within the time constraints of a doctoral research project to be completed within three years. On reflection, I feel that my study would have benefitted from at least one further 6 month follow-up period particularly for the cases of the new Mobility Dog placements. In my opinion neither MD1 nor MD7’s relationships with their Mobility Dogs were fully established at 12 months: MD1 was undecided regarding the use of a bracing harness and MD7 was experiencing difficulties with her dog’s behaviour around food in public. Furthermore, had the study been extended I could have gathered more follow-up data, post-placement with a Mobility Dog, from both MD5 and MD6 who did not receive their Mobility Dogs in time to complete the project.

6.1.2.2 Semi-structured interviews
The semi-structured interview guide worked well although the interviews produced a mountain of textual data. On reflection, I possibly collected too much data related to understanding the overall experience of living with movement disorders and disability. For example, I have detailed narratives of problems encountered accessing funding and support from organisations and service providers, hassles with accessible transport, difficulties with prescribed medications and details of surgical procedures. From a data management and analysis perspective a future study might benefit from a tighter focus on dogs. Inevitably, some participants offered richer narratives than others. My participants ranged from those who required little encouragement and prompting through to those who were quite reticent. Again, I suggest that a reference to in-depth interviews could have usefully been included in the advertising for the study.

With a longitudinal design it was crucial that rapport was established in the initial interview to foster retention of participants. I believe that my experience with the MADT was hugely beneficial in this regard as I am comfortable talking to people with movement disorders and my shared experience of living with a dog helped to break the ice. I initially found the interviews quite taxing, especially meeting the majority of participants for the first time; however, I was already acquainted with three members of the MDG who I had met at MADT graduation and fundraising events. In these cases, I did not need to explain my role in the organisation and rapport was quickly established. I preferred to conduct only one interview per day,
to make notes and fully transcribe the interview before moving onto the next. With participants all living with movement disorders and some in paid employment, flexibility was key in scheduling appointments. I found people with daily health-related regimes of care and exercise were unlikely to be available for an interview in the morning, and it was necessary to conduct some interviews at weekends to fit in with work commitments. Owing to the unpredictable nature of movement disorders, researchers can expect scheduled interviews to be postponed at short notice, as happened with me on two occasions.

As a single researcher it was not easy to combine interviews with observations. Overall I felt that my observations of human-canine interactions were superficial. It was easy to observe behaviours like dogs sitting on peoples’ laps and people talking directly to their dogs in the middle of our conversations, but I was ill-equipped to interpret more nuanced human-canine interactions. A second researcher observing the interaction could have changed the social dynamic, but so-called non-reactive or unobtrusive observations, for example through video-recording, could have enriched the data gathering. With respect to data analysis and the overall research study, I agree with A. Franklin et al. (2007) that – funding permitting – interdisciplinary research teams contributing different areas of specialist knowledge may enhance human-animal studies:

We need to innovate an entirely new approach, which we have given the working title of trans-species methodology ... to bring together specialists who would normally work on either side of the humanities-science divide ... the ideal research team should include ethnographers, veterinarians and ethologists who will combine their knowledge and approaches during data collection and analysis stages ... The challenge lies in making sense of what the animal as well as the human is doing, and how the other party responds or makes sense of this. People may not be aware of the depth and complexity of their everyday communication and culture shared with dogs. Only those immersive, in-depth and long-term methods are likely to make sense of these relationships and demonstrate the complexity of the interaction (pp. 51-52).

A. Franklin et al. (2007) described an ethnomethodological approach to human-canine interaction as similar to studies of adult communication with alingual, very young or disabled children. The authors hypothetically proposed an ambitious research programme combining: observation of interaction in natural settings, especially home and during walks; observation and analysis of video film from cameras set up in the home; interviews over time; and diaries kept by human partners. My study likewise attempted to combine and triangulate data obtained using different methods (in-home interviews, walk-along interviews and photovoice) but I acknowledge a lack of an interdisciplinary eye. This ethnomethodological approach pays more attention to the welfare of the dog, missing in my study.

6.1.2.3 WHOQOL-BREF & PD Module

Two new Mobility Dogs recipients did not return the second WHOQOL-BREF & PD Module at the conclusion of the study. This was disappointing because – having started the study without a dog – potentially they offered the most convincing quantitative evidence of the effects of dogs as a QOL intervention. I was perhaps too mindful of participant burden on top of an interview, to remind them more than twice. To maximise data collection and minimise the research burden of following up on tardy questionnaire returns, a future study could encourage completion of the questionnaire as part of the first and final interactions, unless participants are definitely unable to meet this expectation at the time.

As part of a primarily qualitative case study, I was interested in what a self-report quantitative assessment of QOL might add to future large-scale study and whether the instrument was easy for participants to use. I selected the WHOQOL-BREF & PD Module as a generic instrument appropriate for
use across a range of movement disorders. While its use permits comparison across all participants it may not be the most sensitive measure to assess QOL for specific conditions: compared for example with the PDQ-39 tailored for Parkinson’s disease (Peto, Jenkinson, & Fitzpatrick, 1998) and the Multiple Sclerosis Quality of Life Inventory (Fischer et al., 1999). In a larger study (or a study focusing on one type of movement disorder) it may be more appropriate to consider these options. In retrospect I could have combined the recently developed New Zealand version of the WHOQOL-BREF with the PD Module from the international Field Trial Version of the WHOQOL-BREF & PD Module. The New Zealand WHOQOL-BREF includes five additional items: four in the psychological domain and one in the social domain. The New Zealand WHOQOL Group (n.d.) noted that these items, are neither more nor less important than those found in the WHOQOL. The items while found to be important to New Zealanders, may not be unique to the new Zealand population but may be a reflection of the changes in what the world considers important since the WHOQOL items were developed in the mid 1990s” (p. 16).

This extended version of the WHOQOL-BREF could be considered in a future New Zealand-based study.

Data collected by the WHOQOL-BREF & PD Module were particularly useful in summarising and describing my participants (5.1), and to get a sense of how they perceived themselves across the four life domains (physical, psychological well-being, social relationships and environment) and three facets of disability (discrimination, autonomy and inclusion) assessed. Although my small sample precluded statistical analysis, I looked at some individual scores (Tables 5.7 and 5.8) to explore how triangulation with qualitative data may feasibly enhance interpretation of apparent shifts in self-reported QOL over one year. The issue of accurately interpreting response shift in QOL scores over time was raised in Section 3.5 (Albrecht & Devlieger, 1999; Schwartz et al., 2007). By way of illustration, I discuss five individual cases below:

Marked progression of disability

CD2 was, outwardly, the most physically disabled participant. He commented “life sucks” on the first questionnaire. Over the course of the study he adjudged his MS to have become “a lot worse.” His functional movement was reduced to using one finger on his right hand and his balance deteriorated; at 12 months he spent two-thirds of his life in bed and was catheterised: “I’m more unsteady on my feet; I used to be able to stand up and go to the toilet, now I can’t at all.” Although he could still tap on his ipad, he could no longer feed himself. CD2 illustrates the disability paradox (3.5) as it was hard to reconcile this experience and increases in his scores in both the physical and psychological QOL domains and on all three facets of the PD Module. Despite further loss of functional ability, his overall impact of disability score reduced from 5 to 4. However, turning to interview data, his paid personal care hours had increased from 10 to 42 hours per week, and respite care from four weeks to three months per year. These increases were due to his objective deterioration and the inability of his mother (due to her own progressive condition) to care for him. With reference to a recent hospitalisation he commented that although he missed his dog he enjoyed seeing more friends: “At home everyone takes it for granted that you’re at home, but when you’re in hospital they think you’re supposed to visit. Some of them pop in every week whereas here it’s only every month or so.” I suggest that the quadrupling of his personal care hours largely contributed to improved scores as he felt better physically cared for and benefitted from more social contact with caregivers during the day.
Loss of a companion dog
Overall QOL and the health scores of CD1, who lost her companion dog halfway through the study, showed no change. However, her follow-up scores increased in the social QOL domain and the inclusion facet of the PD Module. This suggests that the loss of her dog – described as a “substitute child” and “baby” – resulted in increased satisfaction with human relationships. One item contributing to the social domain interrogates satisfaction with support from friends and possibly her dog’s death triggered more contact with friends. At 12 months she was looking forward to house-sitting a friend’s dog and an overseas trip with her daughter to visit relatives before she acquired another dog. The inclusion facet of the PD Module measures satisfaction with opportunities for involvement in social and local activities and perhaps no longer feeling “literally tied” to her dog enabled her to participate more freely in these activities. This supports research findings that over-attachment to a companion animal may inhibit human social interactions (Chur-Hansen et al., 2009; Militiades & Shearer, 2011).

New Mobility Dog
Scores for MD1 were fairly consistent over the year apart from his perceived overall impact of disability on his day-to-day life which increased from 2 to 4. However, this increase was not reflected in changes in facets of disability. At 12 months, MD1 described his Parkinson’s as being “probably a bit worse but not drastically” although the introduction of quick-release Sinemet to his medication regime indicated some decline over the year. On the basis of these scores alone it is impossible to say if a Mobility Dog impacted his QOL. It is tempting to conclude that despite his perception of increased disability, partnership with a Mobility Dog maintained his QOL. However, interview data could equally suggest that support from his wife and overseas travel helped to stabilise his QOL.

Retiring Mobility Dog
MD2 was less satisfied with her overall health at the end of the study. She reported more pain, less energy and was dissatisfied with her sleep. It could be inferred from scores that the process of retiring her first service dog and establishing a partnership with a second had taken a toll on her health. However interview data revealed that MD2 had been beset with fatigue and recurrent infections since contracting chickenpox before the start of the study, and this situation failed to improve over the year. Completing the questionnaire for the second time she commented that her overall health score “might have changed; I’m not very happy with it at the moment.” Nonetheless she maintained a high overall QOL – 5 at both measures – which could be attributed to one or more of: her Mobility Dog/s, her supportive husband, family and friends, her new job or a cruise holiday.

Waiting for a Mobility Dog
MD6 was still waiting for a Mobility Dog at 12 months: “It’s really killing me. It’s really hard for me because I struggle terribly. I’m waiting, and thinking about it, and dreaming.” On the basis of these data I wondered if this disappointment would be reflected in her scores. On the contrary, she scored higher in both the physical and psychological domains, and her perceived overall impact of disability dropped from 5 to 4: in particular, she reported less discrimination. Interview data suggested that these positive shifts in her responses were due to a fourth spinal fusion which cemented her decision to use a power chair, in lieu of crutches, for everyday mobility:

I probably struggled for longer than I should have ... I’m not in huge pain and exhausted, my hands and wrists aren’t killing me. I feel like I’ve got my life back. I was down to what was absolutely necessary. Now I go out every day, meet friends, and I do a little bit of shopping
every day, pop it on my lap. People are so much more willing to help. I haven’t been knocked into once. It’s been such positive thing for me. I’ve started looking in shop windows and looking around. My world had got smaller and smaller until it was just the core things that I needed in order to stay alive: nothing pleasurable, nothing good for me. Life had got about as big as a peanut, and that doesn’t help with the depression.

WHOQOL-BREF comments
Questionnaires do not always provide respondents with an option that best reports their experience and the WHOQOL-BREF is no exception. For example, two participants added comments to items regarding inclusion in social and local activities as they found these items difficult to score as presented. They did not feel deliberately excluded: rather, accessibility or personal health issues were barriers to participation:

I feel some of my answers fall between ‘mostly’ and ‘totally’. While I get the chance to be involved – i.e. being asked to be part of something – access or lack of it can make the difference of being there or not. Likewise fatigue levels can preclude me from doing something at the last minute, even though I have had the opportunity (MD2).

Problems with access make it hard to visit friends at their houses (CD5).

Again, this demonstrates that triangulation of questionnaire data with qualitative data can be valuable.

6.1.2.4 Walk-along interview
Many studies of human-canine interaction have focused on dog-walking as a means to enhance physical health via exercise (2.3.1) and to reap psychosocial benefits from interactions with other dog-walkers (2.4). A walk-along interview methodology combines field observation and interviewing and offers a more participatory, equitable interaction with participants than face-to-face interviews (Brown & Durrheim, 2009; Carpiano, 2009; Kuntz & Presnell, 2012; Kusenbach, 2003). This component to my study added insight to participants’ active involvement in dog-walking and the benefits and drawbacks of this activity. I did not insist on a walk-along as my initial interview revealed that some participants relied on assistance from others to meet the exercise needs of their dogs. Overall the outings afforded me an opportunity to observe people interacting with their dogs in different environments and corroborated self-reports of dogs as catalysts to social interaction.

Walk-along interviews flagged potential barriers to dog-walking for people with movement disorders including: weather (two walk-along interviews were cancelled because of rain); difficulty physically managing dogs (pulling on-lead, picking up after toileting); problems walking with dogs distracted by, or displaying aggression towards, other dogs or people; and accessibility and safety of physical environments (disability parking with no dips in the kerb in a suburban shopping precinct, unpaved paths and poor lighting in parks and uneven footpaths in local neighbourhoods).

The walk-along interviews also demonstrated that Mobility Dogs on a regular (jacket off) walk do not attract the intensity of public attention that they do with their jackets on, while an unusually large and attractive companion dog may have a catalysing effect on social interaction similar to that of a jacketed service dog.

6.1.2.5 Photovoice
The photovoice assignment, offering a dual voice of visual and spoken narratives, greatly enriched my case study. In the strictest sense of photovoice as a qualitative research methodology with the goal of
community action and advocacy (Wang & Burris, 1997), I employed photovoice – as have many others – more flexibly (Catalani & Minkler, 2010).

From a practical perspective, I ensured that everyone could participate as fully as possible. I offered alternatives to the disposable cameras and, in a future study, would reconsider using them because of participants’ ambivalence: “The camera took me back to a teenager – having the little point and click – and being very aware if I wasted a photo that was it, and so you were very frugal with your photos” (CD4). Moreover, these cameras verge on obsolete, particularly for younger participants, and are more difficult to operate for some people – with compromised fine motor control – than digital alternatives. Participants tended to forget what scenarios they had taken and – unable to review the photographs – were unsure whether they had taken a good shot. An alternative is to assess participants’ access to suitable digital devices and provide USB sticks and postage paid packets to send downloaded ‘living with my dog’ images to the researcher. A disposable camera would then be used as a last resort for participants not competent with digital technology.

Photographs stimulated participants to talk in a candid and descriptive way about their dogs and enhanced my understanding of their relationships. At first glance some photographs looked uninteresting but were brought to life with the addition of verbal context: for example, photographs of dogs’ favourite resting spots and routine activities (Figures 5.4 and 5.17). Most participants were viewing their photographs for the first time and therefore initial comments tended to exclaim how good or bad the photograph was. Although some people cringed when they initially looked at a photograph of themselves, no one requested that a photograph be excluded from consideration for this thesis when given the opportunity to do so. The pride that some took in their dogs was evident; CD4 bestowed frequent compliments on her dog while looking at her photographs (Figure 6.1):

I love that. The play bow. She’s got beautiful hair. We spend a fortune on products for our hair and she’s like “I’m just naturally beautiful.” (CD4).
Look at that face. Isn’t that gorgeous? That’s her favourite game – tug – and she’s very good at it too. There are some dogs you never play tug with because it becomes too much a battle of wills but with [CD] if you say that’s enough, she’ll give you it and say “I’m sorry, you can have it.” She’s so apologetic. That’s a lovely photo (CD4).

Figure 6.1. Photovoice compliments.

However, photographs alone did not always capture the full experience of ‘living with my dog.’ The main element that participants identified as missing from their photographs was emotional closeness:

I do love her even if I’ve said she’s a naughty girl. You just can’t do without a dog. I really, really love her. I guess that’s hard to see: how much I actually care for her and value her. She’s never in the corner by herself unless she wants to be in the corner by herself. She’s my fur baby; as much as it’s a bit silly, she’s my girl (CD3).

I was thinking about a typical day or the typical things that [CD] does. The only thing that isn’t here is her cuddliness: her leaning up against us and going “I love you.” She’ll cuddle up on bed with me or on the couch (CD4).

Again, this emphasises the value of triangulating multiple methods of data collection in a case situation to present a fuller picture.

6.1.2.6 Data management

With only 17 participants and myself as the sole researcher I managed and analysed my data using Excel spreadsheets (4.3.2). However in a large-scale study with multiple researchers it would be prudent to employ shared data management and analysis software – NVivo for example – to ensure consistency across the project. Having made the decision as a doctoral student to transcribe my own interviews, in order to immerse myself in the data from the outset, I confess I found transcription tedious. I would consider using a transcription service for a large-scale study as this may not be the best use of researcher resources. I was pleased with my decision to invest in a quality digital audio-recorder dedicated to the project; some of my participants spoke quite softly but I had little difficulty picking up their voices with this device. I also felt a recorder dedicated to the project offered better protection to confidential data (an important ethical consideration), than the alternative of using a personal mobile phone, as it could simply be locked away in between interviews.

6.2 Resources

6.2.1 Financial

I undertook this study as a self-funded student, so my financial data do not include the cost of human resource. Table 6.2 summarises my research-related expenditure reimbursed from my university PReSS (Postgraduate Research Student Support) account. This expenditure does not include printing costs for the WHOQOL questionnaires, PIS and consent forms, as a printing allowance was included in my fees.
Each participant cost approximately NZ$180, exclusive of printing and human resource, to include in my study.

Table 6.2
Research expenses

<table>
<thead>
<tr>
<th>Expenses</th>
<th>Cost (NZ$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital audio recorder</td>
<td>199.99</td>
</tr>
<tr>
<td>NCH transcription software licence</td>
<td>37.98</td>
</tr>
<tr>
<td>Disposable cameras &amp; processing</td>
<td>445.65</td>
</tr>
<tr>
<td>Postage paid envelopes/packets for return of questionnaires and cameras</td>
<td>105.60</td>
</tr>
<tr>
<td>Travel to/from interviews @ 0.77/kilometre</td>
<td>1,423.73</td>
</tr>
<tr>
<td>Koha_gifts: $50 pet store vouchers</td>
<td>850.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3,062.95</strong></td>
</tr>
</tbody>
</table>

6.2.2 Human

A substantially larger study would be a heavy load for a single researcher and, as suggested, future human-canine studies may reap the benefits of an interdisciplinary team (6.1.2.2).

I discussed the ethical considerations in my study in Section 4.2.3. These would need to be reviewed as part of a future research plan. While my human ethics application particularly addressed two contentious areas – the “appearance of conflict of interest” and the possibility of compromised anonymity for Mobility Dogs’ participants – these may not be issues for independent researchers (with no prior affiliation to service dog organisations) and those with access to a much larger pool of potential service dog participants. However, there may be further ethical issues to address if different methods of data collection – video-recording for example – were employed.

My perspective as a researcher straddled that of insider and outsider. Earlier, in ‘Chance’ events (1.1.1) and Reflexivity (4.2.4), I made transparent my background with the MADT and partnership with Chance, the Trust’s first canine ambassador. While I am predisposed to the view that dogs can be used as an intervention to foster positive life experiences in people and enhance their QOL, I believe that the distance between myself and dogs more generally has enabled me to compare even-handedly the effects of companion dogs and Mobility Dogs. I perceive that my experiences of living with a dog and working with the MADT were advantageous when it came to establishing and maintaining rapport with participants. I possibly state the obvious in saying that researchers uncomfortable around dogs would be ill-advised to conduct this fieldwork. I encountered dogs rushing out, barking, jumping up and occasionally sitting wedged between participants and me. I also believe it is crucial that researchers in this field are cognisant of and sensitive to the wider issues inherent in the experience of living with chronic conditions, raised in the context of the theoretical framing of disability in Section 3.4.

It was also beneficial to have insight to the operation of service dog organisations: for example, I was prepared for the possibility that some of my initial recruits would not receive Mobility Dogs in time to participate fully in the study. While it was disconcerting to listen to negative comments about some aspects of the MADT’s service delivery, I was pleased that participants felt sufficiently comfortable to share this information with me; at the outset, I was concerned that my allegiance to the Trust might
cause people to censor such material. When it came to writing up these less favourable Mobility Dogs’ experiences it occurred to me that researchers in my position could be tempted to omit this data. I find that I am not alone:

We ought to treat our ethnographies as partial, situated, and selective productions but this should not be seen as license to exclude details that don’t fit the story we want to tell. I want to retain a distinction between saying our work is selective, partial and contestable and saying the impossibility of telling the whole truth means you can lie (Ellis & Bochner, 1996, p. 21).

Throughout my treatment of data I endeavoured to present an accurate view of the benefits and drawbacks of each category of dog in order to produce a balanced picture of my preliminary findings.

### 6.3 Preliminary findings

My extended summary narratives and thematic analysis of the roles of dogs in the lives of people with movement disorders demonstrated the ability to compare effects of companion dogs and Mobility Dogs in practice. I have also determined (6.1.2.3) that scores derived from a quantitative measure of QOL (here the WHOQOL-BREF & PD Module) may not stand meaningfully alone. The main points, indicated by my preliminary findings, that support the notion of a future large-scale study to explore further the impact of both categories of dog on QOL in people with movement disorders are:

- Dogs impact QOL in people with movement disorders in different ways, fulfilling different roles, for different people, across different environments (*Figure 5.2*).
- Benefits and challenges inhere in both categories of dog but, on balance, for people who choose to share their lives with these dogs, benefits outweigh challenges.
- People with movement disorders are likely to require support from others to care for their dogs.
- Mobility Dogs offer more avenues than companion dogs to enhance QOL; training in obedience and specialised tasks, coupled with public access rights, increases their potential to fulfil more roles across an expanded range of environments.
- Some companion dogs may be trained in obedience and specialised tasks to an equivalent level as Mobility Dogs, but their lack of public access currently limits their ability to enhance QOL across a range of environments.
- Psychosocial effects of dogs on QOL are strongly indicated in people with movement disorders.
- Psychosocial benefits may impact QOL more than specialised functional assistance tasks offered by service dogs.
- Small dogs may be more effective as a QOL intervention than medium to large breeds for some people.

I discuss implications of these key findings in Chapter Seven.

### 6.4 Summary

Overall, my feasibility study has demonstrated the ability to compare the effectiveness of Mobility Dogs and companion dogs on QOL in people with movement disorders in practice. My preliminary findings have highlighted merits of a prospective longitudinal study and of triangulating quantitative measures of QOL with qualitative data. Looking ahead to a possible large-scale study to evaluate the two categories of dog as a QOL intervention, I support the proposal of A. Franklin et al. (2007) that the involvement of an interdisciplinary team, particularly collaboration with researchers with specialist knowledge of canine
behaviour, could enhance human-canine studies like mine. My partial insider perspective appeared advantageous in establishing rapport with, and retaining, participants; it is important that researchers involved directly in fieldwork of this nature are comfortable around dogs and disability. Researchers also need to be prepared to deal with sensitive scenarios: in particular, some dogs may die and some people may experience a significant deterioration in their condition.

My study raised important issues pertaining to recruitment. To best compare companion dogs and service dogs as a QOL intervention I envisage that a future study would prospectively follow two groups of people with movement disorders, both groups commencing the study without dogs: one group of approved applicants waiting for a service dog; another group planning to acquire a companion dog. I was not successful sourcing members of the latter group which suggests the need for a different recruitment strategy. My study indicated that over-recruitment of participants is necessary, particularly for the service dog group, to account for the fact that approved applicants are not guaranteed to receive a dog to complete the study within an allotted timeframe. This may not be such an issue when working with a larger organisation. Compared to other, similarly holistic, QOL interventions for people with movement disorders (for example: tai chi, group singing and yoga) it is unlikely that participants with dogs will start the study simultaneously. Therefore to gather data spanning 12 months, the fieldwork phase may need to be planned over, say, 24 months to allow people to acquire dogs at different times.

The next, and final, chapter discusses implications of my preliminary findings for informing: the design of future studies to compare effects of companion dogs and service dogs on QOL – both qualitative and mixed method approaches; policy related to dogs as an intervention associated with the long-term management of movement disorders; recommendations to enhance aspects of service dog delivery; and future related research directions.
“In a way, animals are like pills: Whether they work depends on the individual and on the situation. But properly used, their support and stimulation can be a boon. As one Inova Fairfax patient put it: “Human therapists nag at you. Dogs are more fun. They don’t ask me any questions, and I don’t have to give any answers”” (Fischman, 2005, p.74).

7.1 Introduction

It has been acknowledged that select individuals will benefit from partnering with service dogs but it is unclear whether these benefits may equally characterise owners of companion dogs (Collins et al., 2006; Winkle et al., 2012). The purpose of my work was to explore the feasibility of conducting a future large-scale study, comparing effects of service dogs (Mobility Dogs) and companion dogs on QOL in people with movement disorders. As discussed in Sections 2.2 and 2.7, despite three to four decades of research, systematic reviews of the effects of companion dogs and service dogs on human health and well-being continue to describe the research evidence as inconsistent and lacking scientific rigour. A November 2014 review of health benefits of pet ownership or animal-assisted therapy among older people similarly concluded that studies: “are compounded by methodologic problems including small sample size and lack of adequate controls and blinding” (Cherniack & Cherniack, 2014, p. 6). Reviewers appear reluctant to recognise that, for assessing effectiveness, the research “gold standard” of a blinded RCT will remain elusive when the intervention of interest is a dog. The quest for such evidence has persisted, even though it was observed almost 20 years ago that “it is not possible to conduct a masked investigation of the benefits of service dogs” (Allen & Blascovich, 1996, p. 1004). My study findings support this belief in demonstrating that dogs are a complex QOL intervention for people with movement disorders; dogs impart different key benefits for different people in different situations, and these benefits may take time to accrue. In common therefore with improvement interventions (interventions designed to optimise the delivery of healthcare) dogs may be described as an “innovative social treatment” (Davidoff, 2014, p. 526) whose effects on human QOL are best evaluated, using study methods that are appropriate for the living, context- and time-dependent nature of social treatments ... rather than methods appropriate for the inanimate, standardized nature of pills, which they decidedly are not (p. 527).

By no means am I the first person to suggest that RCTs are inappropriately venerated in some areas of healthcare research. From the perspective of philosophy of science, for example, Worrall (2002) has written extensively about what constitutes evidence in evidence-based medicine. Others, such as Upshur and Tracey (2004) and Denzin (2009) have similarly challenged concepts like a hierarchy of evidence. An alternative way forward to understanding dogs as a QOL intervention may be to shift attention from the shortcomings of intervention studies (including quasi-experiments) to a meta-analysis of qualitative studies, hitherto excluded from systematic reviews, that can inform future mixed methods studies.

My preliminary findings suggest that further research to compare effects of companion dogs and service dogs as a QOL intervention in people with movement disorders is, indeed, warranted. I have demonstrated that QOL frameworks (of which I. B. Wilson & Cleary (1995) and the revisions of Ferrans...
et al. (2005) and Sprangers et al. (2010) are examples) which acknowledge multiple influences (including physical, psychological, social and environmental factors) on an individuals’ perception of overall health and well-being are well aligned with the perceived benefits and drawbacks of dogs. From the perspective of disability theory, Disjuncture Theory (Depoy & Gilson, 2011) offers a complementary framework: benefits and drawbacks of dogs may variously create juncture and disjuncture between disabled bodies and environments.

My findings also spawn embryonic consideration of implications for the long-term management of movement disorders, including policy and practice suggestions for service dog organisations. In this final chapter – based on my assessment of the feasibility of my study – I first consider what future studies to compare the two categories of dog might look like and propose a mixed methods framework for a future large-scale study. I then discuss policy implications of my findings together with suggestions for future research directions, and close with the notion of a ‘canine prescription.’

7.2 Future studies

7.2.1 Further qualitative studies

In my discussion of possible reasons for shifts in WHOQOL-BREF & PD Module scores over 12 months (6.1.2.3), I demonstrated that qualitative data may illuminate the causal spaces left by quantitative data. Before outlining a possible future, large-scale, mixed methods study design to compare effects of companion dogs and service dogs on QOL in people with movement disorders, further qualitative research could build on my preliminary findings. My observations have been superficial both in terms of my ability to interpret canine behaviour and in duration: one to two hours spent with each of 17 participants on three occasions over 12 months. A more truly ethnographic study would involve more protracted periods of observation and could draw on the expertise of an interdisciplinary team of researchers for data analysis, as advocated by A. Franklin et al. (2007). This may add insight to human-canine relationships from the perspective of the dog. And, although the photovoice component of my study has afforded a small window into my participants’ relationships with their dogs in my absence, a more naturalistic study could add real-time measures in the form of video-recording (Forsyth, Carroll, & Reitano, 2009), inside and outside the home, to explore further the relative importance of the different roles of dogs in potentially enhancing an individual’s QOL. I note here that the introduction of video-recording as a data collection tool would need to be addressed in my human ethics protocol.

Future qualitative studies could also focus on gaining a deeper understanding of specific roles of dogs in the lives of people with movement disorders. The role of dogs as motivators to exercise, and derive health benefits, has already attracted much attention (2.3.1). However, unlike other studies such as Cutt et al. (2008) all my participants were diagnosed with chronic movement-related conditions; a number were not ambulant but rather were manual and power chair users. While dog-walking was a prime motivator for some participants to exercise, for others it presented an enormous challenge due to characteristics of the dog (behaviour which made dog-walking on top of a movement disorder difficult), fragile health, inclement weather and inaccessibility of local environments for people with mobility impairments. The ability of dogs to motivate some people with movement disorders to exercise supports the customisation of rehabilitation programmes around dog-walking, where appropriate, which may improve adherence to exercise. In a hospital setting, canine-assisted ambulation (with trained therapy
dogs) has enhanced patient outcomes and reduced the length of stay for people with chronic heart failure. When offered the opportunity to walk with a dog, patient refusal to early ambulation declined, and the number of steps taken almost doubled (Abate, Zucconi, & Baxter, 2011). Researchers in New Zealand have identified needs to explore ways to restore good levels of community ambulation in stroke survivors (Lord, McPherson, McNaughton, Rochester, & Weatherall, 2004) and encourage exercise for people with MS-related fatigue (Smith, Hale, Olson, & Schneiders, 2009). Dog-walking may be a solution for some people. Current ethnographic research at the University of Otago is investigating positive and negative aspects of dog-walking for people with chronic conditions by employing “mobile methods” (walk-along interviews combining audio- and video-recording with observations of interactions of participants with their dogs, other dog-walkers and the environment):

Healthcare professionals need to be more aware of how we can support people with chronic conditions in exercise ... if we know a little bit more about the drawbacks then we can help them make an informed choice and help them set up practical things like dog-walking networks for when their condition prevents them from going ‘walkies’ (C. Smith interviewed on Dunedin Television (2014)).

A subsequent study using these methods could compare companion dogs with ‘walker dogs’ (Mobility Dogs trained to add stability while walking). In principle, fewer drawbacks to walking with service dogs would be expected. However, few ‘walker dogs’ currently work in New Zealand which makes recruitment for this study difficult.

A second specific role that demands naturalistic observation is that of the use of dogs as a tool or assistive technology. Such a study could determine how much of a service dog’s overall role is based on functional assistance tasks that mitigate aspects of physical disability versus psychosocial benefits. The importance of this question will become clear in the context of implications of my findings for service dog organisations (7.3). A number of studies (including an unpublished MADT in-house survey (2013) and my own) have reported a range of trained tasks executed by service dogs but do not explicate their frequency (Camp, 2001; Fairman & Huebner, 2001; Lane et al., 1998; Rintala et al., 2002, 2008).

Although the word “frequency” has sometimes been used it has related to the number of participants who reported a particular task (Fairman & Huebner, 2001) or relative frequency as compared with a priori expectations (Rintala et al., 2002) rather than how often the task itself was actually performed. It is possible service dog partners self-report the tasks the dog is capable of performing – rather than tasks they use on a regular basis – inadvertently inflating task utilisation.

My study touched only peripherally on partners and caregivers present during some interviews. Another avenue for further qualitative inquiry therefore is to compare perspectives of key informants – including family, caregivers and health professionals – regarding effects of companion dogs and Mobility Dogs on QOL. For some key informants the dog may impact their own QOL, positively or negatively: they may enjoy interactions with the dog, have more time to do other things and experience increased peace of mind because the dog is there to help (Rintala et al., 2002); but, over the trajectory of a chronic condition their responsibility for care of the dog may increase, adding to their burden of care (B. W. Davis et al., 2004). To date, research internationally indicates that health professionals working in rehabilitation – occupational and physical therapists – are the professional groups most interested in the efficacy of service dogs. It may be useful for the MADT to understand how human health professionals (including specialists, general practitioners, occupational and physical therapists and district nurses), veterinarians
and animal welfare organisations perceive companion dogs and service dogs as a potential QOL intervention in the long-term management of chronic conditions.

7.2.2 Large-scale mixed methods study

My case study design, which employed four qualitative methods (semi-structured interviews, walk-along interviews, participant observations and a photovoice assignment) alongside a quantitative measure of QOL (WHOQOL-BREF & PD Module), demonstrated that qualitative data can add insight to quantitative data in interpretation of WHOQOL scores. Therefore a mixed methods design is indicated for a future large-scale study. The aim of this study could be to examine the hypothesis: is QOL in people with movement disorders enhanced, over time, more by service dogs than companion dogs?

I propose a prospective longitudinal research design following two groups of people with diagnosed movement disorders, all living with a level of disability that meets criteria for partnership with a service dog; this recognises that diagnosis of a movement disorder per se – at least initially – does not necessarily imply a degree of mobility impairment that warrants the assistance of a service dog.

To best evaluate the impact of a dog as a QOL intervention, all participants would commence the study without a dog: one group with plans to acquire a companion dog within 6 months of recruitment; and a second group of approved applicants waiting for a service dog. The two groups would ideally be matched as closely as possible on human and canine demographic variables, and characteristics of movement disorders. My experience indicates that matching these groups will not be easy. People with movement disorders are likely to live with a wide range of physical and psychological comorbidities (Table 5.4); so it may be better to match groups on characteristics of living with chronic conditions more generally – rather than specific movement disorders – as per data collected at the start of the WHOQOL-BREF: that is, how much disability affects life, visibility of disability and main mode of mobility (Table 5.5).

Preferably all service dogs would be provided by the same ADI accredited organisation, but to recruit a sufficient number of participants it may be necessary to broaden the scope to include other accredited service dog organisations. It is unlikely that a study of this size could be conducted in New Zealand in the foreseeable future owing to the small number of Mobility Dogs – approximately 10 – placed each year (and not all these dogs are full service dogs).

I suggest a longitudinal study with six-monthly data collection points over a minimum of two years. The first, baseline, measure would be taken prior to the arrival of a dog, then subsequent measures would take place at six month intervals post-acquisition of a dog. In hindsight, I felt that 12 months was too short a time for me to assess fully the impact of a new service dog placement. Even two years may be insufficient: B. W. Davis et al. (2004) followed 17 paediatric placements for five years; Rintala et al. (2002) followed service dog placements for 5.5 to 9.6 months, post-placement, and conjectured that it may take five years to assess vocational and economic benefits. Adding to the complexity of managing this study, participants are unlikely to start at the same time. This needs to be factored into the total timeframe allocated to fieldwork: to follow sufficient participants for a full two years may require three to four years depending on the output of the service dog organisation/s involved.

At each data collection point, participants would complete a standardised quantitative measure of QOL. The more comprehensive WHOQOL 100-item & PD Module could be considered in lieu of the WHOQOL-BREF. If the decision were made to include only people with a specific movement disorder –
Parkinson’s disease for example – a disease-specific QOL measure may be more appropriate. My experience suggests that focusing on a specific movement disorder will make recruitment for a large-scale study difficult, but I was recruiting from a small service dog organisation in a relatively small country. Alongside repeated quantitative measures of QOL, additional data – both quantitative and qualitative – would be collected to track: the trajectory of overall health status (for example: changes in medication, other interventions, comorbidities, level of disability, hours of paid/unpaid assistance, mode of mobility and hospitalisations/surgeries); other significant life events that may impact QOL (for example: death of a loved one (human or animal), change in employment status, change in living situation, or a holiday); changes in the roles the dog is perceived to fulfill; and drawbacks of living with the dog (for example: behaviour, training, maintenance/care issues, illness/injury and associated veterinary expenses).

This information could be gathered via a supplementary questionnaire to the QOL measure and a telephone interview at each data collection point. My findings indicate that a future large-scale study, to compare effects of companion dogs and service dogs on QOL in people with movement disorders, may have important implications for service dog organisation policy and practice.

7.3 Implications for service dog organisations

My study suggested that Mobility Dogs offer more avenues than companion dogs to enrich QOL in people with movement disorders but the service dog model does not suit everyone who chooses to share their life with a dog and, for them, companion dogs may be equally effective. I described eight roles of dogs that potentially enrich QOL and increase juncture between disabled bodies and environments: namely, companion, protector, caregiver, icebreaker, empowerer, motivator, entertainer and tool/assistive technology. My findings resonate with the work of Brooks et al. (2013) which explored the contribution that companion animals make to ‘the work’ associated with the management of chronic conditions. Both categories of dog are an integral part of personal, social support networks and actively assist with the ‘work’ associated with managing chronic conditions: emotional work (providing comfort) and biographical work (retaining control and giving meaning to life). As expected, Mobility Dogs generally have more ability to contribute to practical work (assisting with everyday life).

However, one important consideration here is the possibility that organisations may have to re-train dogs as individual needs change (sometimes rapidly) over time with progressive conditions. For example, a service dog intervention at placement for an ambulant person requiring assistance with balance while walking becomes quite a different scenario at 12 months if this recipient is now a wheelchair user (MD5 being a case in point). MD2, talking about her first Mobility Dog described her as a “basic model” that no longer met her needs. She was then “blown away” by the skills of her new Mobility Dog. In hindsight, I overlooked two obvious questions here: did she seek assistance from the MADT to upskill her first dog?; and did the MADT assess her changing needs at any point?

The key advantage of Mobility Dogs is that they come ‘pre-loaded’ with training in obedience and specialised tasks, tailored to individual needs. Coupled with public access rights, this training increases their potential to fulfil an expanded range of roles across a wider range of environments than companion dogs. I was not surprised that Mobility Dogs were more likely than companion dogs to be described as a “tool” (assistive technology) as this is effectively how they are ‘sold’: as dogs trained to provide
assistance with activities of daily living. However my study also identified companion dogs – trained in obedience and agility – with some service dog skills. One of these dogs enabled a man with Parkinson’s disease to walk with increased fluidity. However in the absence of public access rights, he could not use the dog to assist his movement in dog-restricted public spaces, like supermarkets.

7.3.1 Public access for companion dogs

An implication here is for the MADT to consider making provision to licence companion dogs (for people with a level of physical disability that would qualify them for a Mobility Dog) that satisfy international public access standards. One service dog organisation in New Zealand – Perfect Partners Assistance Dogs Trust (PPADT) – appears to offer assessment of privately-owned companion dogs for suitability to be trained as service dogs. However the PPADT website states that its main objective is to help “individuals not supported by the disability assistance dog organisations that existed in 2007” (PPADT, 2014) which, in principle, excludes people with movement disorders because the MADT was established in 2003. I acknowledge issues inherent in controlling the quality of the MADT brand when dogs are raised and trained outside the programme. Nonetheless I contend that if there is a truly inclusive approach to dogs helping people living with physical disability, there are grounds for licensing companion dogs that pass the Public Access Test: much in the same way as a driver’s licence is independent of the model of car, public access rights should be conferred irrespective of the category of dog, provided the dog meets the requisite standards of behaviour and training.

My findings also suggest that psychosocial effects of both companion dogs and service dogs on QOL are strongly indicated in people with movement disorders. Psychosocial benefits may enhance QOL at least as much as the functional assistance offered by service dogs. The role of the Mobility Dog as a tool/assistive technology is but one of a number of roles a service dog may fulfil to enrich an individual’s QOL. Rintala et al., (2008) focused on the task (not psychosocial benefits) of hearing and service dogs. Although participants (n=18 in the experimental service dog group) were, on average, very satisfied with their dogs, three participants spoke of perceived shortcomings in their dogs: unreliability in tasks the dog was supposedly trained to do; tasks missing; obedience issues; walking too fast; inferiority to a walker in terms of stabilising balance; and displaying unsettled, fearful and puppy-like behaviours. The authors concluded that: “The effect of the [service] dogs on the participants’ lives was in the realm of small but important happenings throughout the day” which generally contributed to “the flow of daily life” (p. 501). They acknowledged that study periods ranging from 5.5 to 9.6 months may have been inadequate to produce a statistically significant effect, and that the raft of standardised measurement instruments employed (including the Craig Handicap Assessment and Reporting Technique (CHART), Functional Independence Measure (FIM) and SF-12 (12-item Short Form Health Survey)) were perhaps inadequately sensitive to capture the functional impact of service dogs. However, tasks per se might not be the most important component in a service dog partnership. The following verbatim quote from a participant in my study offers a similar summation of the effects of a Mobility Dog on QOL:

She’s expanded my confidence and my competence outside my traditional areas of functioning. Like I can totally pull myself together for the couple of hours of a lecture, or couple of hours of work but after that, the times when you’re on your own and there’s no reason to perform – for lack of a better term – she increases my quality of life in the most affected areas of my life. She doesn’t rapidly expand my independence but she definitely increases my baseline: my baseline in terms of my physical competence, my baseline in terms of my psychological confidence and my baseline in terms of my social confidence (MD3, Mobility Dog for 6 years).
A potential problem looming for service dog organisations is that public access legislation is grounded in the ability of service dogs to mitigate aspects of physical disability; the dog must enable a person to do three things, functionally, that they could not otherwise. In this context, while it is widely accepted that service dogs provide psychosocial assistance (Allen & Blascovich, 1996; Camp, 2001; Collins et al., 2006; Fairman & Huebner, 2001), this support does not qualify as a legal “trained” task. I quote from the minimum training standards set by the International Association for Assistance Dog Partners (IAADP, n.d.):

Trained tasks that mitigate the effects of a disabling condition are the legal basis for granting access rights to disabled handlers under the Americans With Disabilities Act (ADA). An assistance dog with this special training is viewed as assistive technology/medical equipment, not as a pet ... A task is a behavior or set of behaviors the dog is trained to habitually perform in response to a command or a particular situation ... The task must be related to your disabling condition, helping you in some way ... While everyone enjoys the emotional, social and safety benefits that a dog's presence can provide, those benefits do not constitute trained tasks that would transform a disabled person's pet into a legitimate Service Dog under ADA.

It is interesting that – although legalised public access for service dogs hinges on tasks – the earliest published studies focused on the role of service dogs as a conduit to social inclusion (Eddy et al., 1988; Hart et al., 1987; Mader et al., 1989) rather than functional outcomes. Based on the service dog literature and my findings, I tender the proposition of widening the perspective of what defines a service dog. I contend that the ability of a well-behaved dog with public access rights to enhance an individual’s psychosocial functioning, increase community participation and provide a greater sense of security across a range of environments is of at least equal importance as tasks per se. I suggest therefore that the emphasis on functional assistance tasks for public access be relaxed in recognition of the other valuable roles dogs fulfil. This opens the door for appropriately trained companion dogs to be similarly assessed for public access rights for people with movement disorders.

7.3.2 Small dogs

My findings also indicate that some people with movement disorders may benefit from a well-trained small dog. Some participants exhibited a distinct preference for small breeds, perceived to be more practical, especially in terms of cost and care. Small dogs also afforded a specific form of close companionship as ‘lap dogs.’ Although the service dog model encourages recipients to take full responsibility for their dogs, in real-life scenarios (people living with mobility impairments and unpredictable/progressive chronic conditions) I observed that meeting this responsibility can be difficult – particularly in terms of providing sufficient daily exercise for a medium to large sized breed of dog. I suspect that many successful service dog partnerships are well supported by family or caregivers; in my small sample, MD2 stated a number of times that she could not manage her dogs without the support of her husband; MD3 reported that her mother exercised her dog daily; and MD7 that her caregiver assisted with bathing and grooming. This admission creates something of an impasse for people living on their own who, on paper, are ideal candidates for the benefits offered by service dogs but who will struggle to manage the responsibilities of a medium to large dog alone. (I note here that the MADT has recognised this need and is in the throes of developing a ‘Friends’ group of volunteers to offer assistance, to recipients, with exercise – especially off-lead – and general maintenance of their dogs (J. M. Wilson, personal communication, October 1, 2014)).
Although some ‘lap dogs’ in my study appeared to slip below the public access radar – that is, wheelchair users reported uncontested access to public spaces with their small dogs up and off the ground – a more inclusive approach to dogs as a QOL intervention would be to also extend public access rights to appropriately behaved small companion dogs. And, to meet the needs of more people living with physical disability, service dog organisations could consider a more extended ‘product range’ to include smaller dogs alongside the typical medium to large sized breeds. Smaller dogs cannot execute the full range of functional assistance tasks of larger breeds (for example: assisted pulling, bracing support, opening heavy doors and nudging a pedestrian button) but perhaps some can be trained to fetch small items – including the all-important phone in case of an emergency – and to alert bark. Jesse the Jack Russell – with several videos uploaded on YouTube – is an excellent example of a small dog trained with what appears to be an extensive range of service dog skills (JustJesse197, 2010). It is outside my area of expertise to comment on the suitability of a Jack Russell for a service dog programme, but I note a number of smaller breeds on the national register of hearing dogs (Hearing Dogs NZ, n.d.).

7.3.3 Towards robotic service dogs?

Failure to recognise psychosocial benefits as equally valid criteria for legalised public access (as functional assistance tasks) could herald the end of the service dog concept as presently defined. Looking to the future, I predict that increasingly smarter technologies are likely to erode the need for many of the tasks that service dogs presently execute. However I expect demand for the psychosocial assistance provided by service dogs, at home and in the community, to endure. Writing of Guide Dogs Whitmarsh (2005) stated: “While technological aids are rapidly advancing to meet the physical needs of disabled people, social and psychological needs are of at least equal importance and not adequately met by technology alone” (p.37). A recent article, in a local Reading paper, reported collaboration of Guide Dogs with Microsoft in trials of the ‘Cities Unlocked’ technology. The purpose is not to replace the dog but to augment the guiding experience with additional information:

Using a specially programmed headset, linked with a Microsoft Windows phone app, the user can navigate their way around an area using audio cues transmitted through their jaw bone, leaving their ears free to hear what is happening around them. Points of interest, such as postboxes, banks and supermarkets, can be pointed out to the user in as much or a little detail as they choose, along with practical navigation cues similar to that of a satellite navigation system (Davidson, 2014).

Efforts are also underway to produce an augmented service dog (Rybarczyk et al., 2013). Robotic technology is improving the collaboration between humans and dogs in a hybrid system that merges the dog’s flexibility/adaptability (affective relationship, sensorial capabilities, motor skills) and the robot’s reliability/consistency in order to assist people in a determined task. The robot has two specific roles: to provide an alarm signal to the human if the dog faces a determined problem, and to preserve dog obedience in an autonomous way or by a remote control.

And an increasing body of research is dedicated to robotic animals – including robotic dogs – driven in part by the needs of an human population and environments (primarily long-term care facilities) where meeting the biological needs of living animals is difficult. Although robotic service dogs were outside the focus of my inquiry, the subject arose in one conversation with a study participant. CD3 voiced her disdain:
How can you even call a robot a companion? I think it’s an oxymoron. It’s further alienating people. You can’t pat your robot and get lower rates of blood pressure and depression. I can’t think of anything worse. Give me a dog any day. With elderly people, and people with disabilities, you get a lot of alienation from the community already. You get caregivers coming in, forming a relationship with your dog, and it can be a really positive thing.

I expect that many people who choose to live with a dog share CD3’s perspective. However, it has been demonstrated that an interactive robotic dog positively impacts the social environment of residential care facilities and reduces loneliness (Banks, Willoughby, & Banks, 2008). Closer to home, Paro – a seal robot – was trialled in a residential care facility in Auckland, New Zealand, alongside a resident dog (Robinson, MacDonald, Kerse, & Broadbent, 2013). Both made an impact on the social environment in comparison to when neither was present, but overall residents talked about and touched the robot more than the dog. Partly this was because some residents were excluded from interactions with the dog because the dog could choose whom it interacted with, whereas the robot would respond to everyone. It has been proposed that a robotic dog which mirrors the actions of a service dog will cut costs and waiting times for some people. Nguyen and Kemp (2008) presented a bio-inspired assistive robot which responded to an impressive 71 verbal commands as listed in a service dog training manual; a laser pointer was used to illuminate task-relevant locations. This robot bore no physical resemblance to a dog but successfully opened and closed drawers and doors (including a microwave), retrieved items and stayed quiet when requested. The authors acknowledged the inability of the robot to provide companionship commensurate with that of a service dog but qualified this shortcoming by saying, “we expect that a person with a robot assistant could also have a pet dog for companionship” (p. 543).

Research continues with the aim of creating robots with more dog-like behaviours to increase their acceptability as working companions. Gacsi, Szakadat and Miklosi (2013) sought to identify what assistance robots can learn from the social behaviour of assistance dogs to act appropriately in a given social context with relevant social abilities: when a robot fails to fulfil requirements people are disappointed and annoyed. The authors observed 32 assistance dog partnerships performing fetch and carry tasks to explore the reaction of dogs to unforeseen difficulties. Notably, the dogs showed persistence to execute an insoluble task which attenuated the owners’ disappointment. Therefore, robots need either to communicate their inability to solve a problem or to perform displacement behaviours rather than simply failing to complete a task. My feeling is that although a dog-like robot might be a practical assistant in home environments, it is unlikely that people will enthusiastically take these robots (assuming they are able to operate outside the home) into the community or reap equivalent psychosocial benefits.

7.3.4 Service delivery

My findings indicate some areas of the MADT’s service delivery could be reviewed. I say this cautiously because of my small sample and that I have listened only to clients’ perspectives. Based on my experience of working for the MADT, I appreciate the difficulties of providing a premium service, when funding, and human resource, are limited.

7.3.4.1 Employee education

In my view that one of the greatest challenges for employees and volunteers involved with service dog organisations is to remember that these organisations are ultimately about people. While dogs are essential they are the ‘product’ which is supplied to enhance the lives of people. Importantly, much
attention is paid to optimising the genetics, health, welfare, behaviour and training of service dogs. More attention could be paid to ensuring that employees – especially those involved directly with clients – understand movement-related disorders and wider disability issues. A number of non-motor symptoms may not be readily visible (for example: fatigue, chronic pain and cognitive impairment) yet significantly impact the ability of an approved applicant to manage a standardised Team Training programme, assimilate new information and cope with assessments. I noted reluctance in new recipients of Mobility Dogs to raise issues of concern post-placement for fear of disagreeing with or disappointing the trainer, losing public access rights, or perhaps the dog. Stewart (2006) raised the related issue of potential psychological harm as the result of dog trainers adopting the role of lay counsellors in client interactions:

First and perhaps most importantly, the vast majority of trainers do not have formal education in psychological theory, counselling skills or ethics involved in the field ... the situation of a trainer counselling a client with regard to issues with the Assistance Dog, familial difficulties, financial problems or emotional states gives the trainer an insight into client life that could unintentionally cloud judgement of how fit the client is to obtain or keep the Assistance Dog ... This insight, coupled with legal rights to remove the dog if deemed necessary, creates a power imbalance within the trainer-client connection (pp. 118-119).

Stewart recommended that service dog organisations enlist the expertise of mental health professionals to: impart active listening and empathetic response skills to dog trainers; help dog trainers understand boundary setting with clients; and recognise when a client requires referral to a mental health professional. To this end the MADT may wish to consider partnering with health professionals (with specialised knowledge of movement disorders, disability and mental health) to provide employee education in these wider issues when necessary.

7.3.4.2 Family and caregiver education

My findings indicated that family or caregivers are often involved in aspects of a Mobility Dog’s care: for example, walking, grooming, bathing and toileting. Therefore to maintain obedience and training standards, it is imperative that, as far as possible, everyone who interacts with the dog is consistent in their use of commands and expectations of behaviour. MD7 reported interference from some members of her family feeding human food to her dog, which undermined her ability to control the dog in the supermarket. This experience flags a need, in some cases, to include an education module during the placement process for everyone who interacts closely with the dog. A study of 17 families with children under 18 years, which were partnered with service dogs, found that it was of paramount importance to understand the service dog in the context of the family, not just the individual partnered with the dog (B. W. Davis et al., 2004). Although my study excluded paediatric placements (children with Mobility Dogs have facilitated, not full, public access), behavioural, financial, and time/cost issues related to the dog added some burden to approximately half of these families over five years.

7.3.4.3 Public education

To improve the experience of Mobility Dog teams in the community, my findings (and personal experience) indicate a need for public education in service dog etiquette. A number of studies have identified the psychosocial benefits of service dogs as icebreakers for people with physical disabilities (Allen & Blascovich, 1996; Collins et al., 2006; Eddy et al., 1988; Hart et al., 1987; Lane et al., 1998; Mader et al., 1989) but few studies report drawbacks to increased social engagement as intensely as have my participants (5.2.3.5). This difference leads me to question whether the ‘service dog jacket effect’ is more potent in New Zealand (possibly New Zealanders engage with strangers and service dogs
in public spaces in a different way than in other countries) or, has this effect been under-reported in previous studies, perhaps more intent on highlighting the benefits? Fairman and Huebner (2001) made a passing note that public interference with service dogs was a problem for 2.5% of respondents; B. W. Davis et al. (2004) reported this was an issue in some paediatric assistance dog placements. Only Onsager’s (2011) case study of one young woman with a service dog appears to voice drawbacks of this increased social interaction as strongly (2.7). Key messages that could be communicated are: Mobility Dogs are working when they are wearing a service jacket; services dogs must not be distracted (request, and receive, permission from its guardian before touching or photographing a dog); do not offer food to a Mobility Dog; recognise that a Mobility Dog’s handler may be busy (people generally enjoy talking about their Mobility Dogs but do not be offended if they are unable to stop and chat); and refrain from personal questions about a person’s disability or otherwise do not intrude on his or her privacy. The latter point relates directly back to my initial discussion of disability (1.4.5) that “first and foremost disabled people want to be seen as fully human” (New Zealand Human Rights Commission, n.d.).

7.3.4.4 Cost
In this study the MDG tended to higher QOL scores on the environmental domain, linked to individuals’ financial situations. Compared to the acquisition of a companion dog, the cost of service dog placement (circa NZ$4,000) and ongoing maintenance (NZ$1,500–$2,000 per annum, exclusive of veterinary costs) may present an insurmountable hurdle for some would-be Mobility Dog applicants. Additionally, medium to large breeds were perceived to be more expensive to maintain than small dogs. While not surprising that Mobility Dogs may be found in more financially robust households it does create a feeling of unease that a service dog may be an intervention, like an expensive drug, beyond the means of many people who may benefit. Searching online, I found charities overseas dedicated to supporting the financial needs of people with service dogs. For example, The Gift of Sunshine offers up to US$2,000 to assist with the initial fee and also funding for assistance with veterinary costs “in the event of catastrophic illness or accidental injury ... up to a lifetime maximum of US$2,500” (The Gift of Sunshine, n.d.). It is perhaps ironic that charitable service dog organisations require additional charities to support their service. (At the time of writing the MADT plans to review the placement cost policy in 2015 with the hope of eliminating this potential barrier (J. M. Wilson, personal communication, October 1, 2014)).

7.4 Implications for retirement villages
Another related aspect of living with movement disorders and dogs, raised in my study, was policy regarding animals in retirement villages and residential care facilities; CD6 was separated from his “best friend” when he moved to residential care. There are compelling reasons for restricting ownership of some companion animals in these environments, yet a companion animal may enrich the QOL of older people (Knight & Edwards, 2008). I therefore noted with some interest the TigerPlace initiative: a new model of ‘ageing in place’, a cross-disciplinary, collaborative programme between the University of Missouri School of Nursing and College of Veterinary Medicine (Baun & Johnson, 2010). Set in several acres with walking trails and exercise areas TigerPlace, is a pet-inclusive, pet-encouraging facility. This philosophy is based on research showing that human/pet interaction provides visual, auditory, olfactory and tactile stimulation, and that this interaction may stimulate well-being through ... neurochemicals believed to enhance feelings of well-being, mood, and relaxation. Knowing that pets are beneficial for older adults, pets were considered throughout the design and construction of the TigerPlace facility – screened porch,
wide windowsill, outside entrance and tile entry to accommodate pet needs. But perhaps the most unique and compelling feature is the veterinary clinic within the building, specially designed to provide care for the pet residents of TigerPlace (p. 290).

People averse to close contact with companion animals would not choose to live in TigerPlace but it offers a welcoming environment for those who do. Animal health and welfare are ensured; a faculty veterinarian makes monthly house visits with student Pet Assistants employed to help walk dogs, clean cat litter boxes, deliver pet food, dispense medication and transport animals as necessary. Residents know that their cherished animal companions will be cared for in the event of their death; bereaved animals are fostered by other residents or re-homed in the community. In light of New Zealand’s companion animal ownership figure of 68% of households (NZCAC, 2011) this experience suggests an opportunity for future research in ageing to investigate consumer interest in, and the feasibility of, retirement villages with a specific companion animal focus in New Zealand.

7.5 Suggestions for future research in New Zealand

Although a large-scale study to compare effects of companion dogs and service dogs on QOL in people with movement disorders is unlikely to be possible in New Zealand in the foreseeable future, my findings suggest a number of other avenues to explore. For example: close observation of well-established Mobility Dog partnerships over time to assess how much of a service dog’s overall role is based on functional assistance tasks – to mitigate physical disability as defined by ADI public access standards – vis-à-vis psychosocial roles; perspectives of key informants (including family, caregivers, and human and animal health professionals) regarding the comparative effects of companion dogs and Mobility Dogs on QOL in people with movement disorders; research to identify small breeds of dog that may be suitable for service dog programmes as an alternative to medium to large breeds; estimating the prevalence of companion dogs that provide functional assistance with specialised tasks in a similar way to Mobility Dogs; estimating the prevalence of companion dogs that, irrespective of their ability to mitigate aspects of physical disability, are capable of passing a Public Access Test. And, would public access rights for these companion dogs – offering psychosocial benefits – enable greater community participation for people with movement disorders?; and comparison of ‘walker dogs’ (Mobility Dogs trained to aid stability) and companion dogs as adjuncts to exercise for people with chronic conditions.

7.6 A canine prescription?

To conclude my thesis I consider the notion of a ‘canine prescription’. Of course, it is one thing to suggest seriously a canine prescription as a QOL intervention for people with movement disorders and another thing to have it taken seriously by health professionals. Des Spence (no relation) – a General Practitioner in Glasgow – has recently published two candid commentaries in the BMJ endorsing a ‘pet prescription’ in lieu of pharmacological interventions:

Indeed, the elderly pet owner seems both happier and fitter than the average. Pets offer elderly people friendship, a substitute for those long gone and ungrateful children, an exercise routine, but above all a sense of purpose. None of these is in the gift of our medication (Spence, 2008).

The middle aged are captive prey to corporate medicine and the drug industry. Indeed, reading research on prevention and treatments leaves me wondering if modern medicine does much good; but I’m absolutely certain it does much harm. Medicine is encouraging passivity, disempowering rather than empowering. Our loss of youth is compounded by the loss of wellbeing ... Perhaps the middle aged need to form a clandestine organisation ... against medicine, medication, and medicalisation. Take our chances in the wild and drop off the medical
Pop all health circulars straight into the recycling bin, decline all screening tests and recalls. Spurn doctors. Engage in active health through exercise, pet ownership ... (Spence, 2014).

To date the Green Prescription (GRx) is the most widely recognised non-pharmacological prescription to enhance health and well-being: “a health professional’s written advice to a patient to be physically active, as part of the patient’s health management” (Ministry of Health, 2014a). The GRx has been found to be an effective strategy in increasing physical activity (Elley, Kerse, Arroll, & Robinson, 2003; Lawton, Rose, Elley, Dowell, Fenton, & Moyes, 2008; Swinburn, Walter, Arroll, Tilyard, & Russell, 1998) and improving QOL (Elley et al., 2003). The most recent Ministry of Health follow-up survey (2014b) of GRx patients found that 62% of respondents (n=2,858) were more active 6-8 months after receiving a GRx. The main physical activity prescribed was walking. Respondents were asked who they exercise with, but there was no explicit category to check if they walk with a dog, either alone or with other people (although some dogs might have been included in the ‘other’ category). It could be informative to specify ‘dog’ in a future follow-up GRx survey to ascertain whether dog-walking contributes to exercise in this group and, if so, whether dog-walkers are more likely to adhere to exercise prescriptions than others. Additionally, I noted that 46% of these GRx respondents reported a long-term disability or impairment that limits their physical activity; this raises the possibility that some of this group may benefit from the prescription of a companion dog or service dog as an adjunct to this exercise prescription.

Overall, the preliminary findings of my feasibility study support a canine prescription for people with movement disorders who choose to share their lives with a dog. My study has gone some way to elucidate the comparative effects of companion dogs and service dogs (Mobility Dogs) on QOL in people with movement disorders. A future large-scale longitudinal mixed methods approach is indicated to build on my preliminary findings, and to investigate further QOL as an appropriate conceptual framework for studying these human-canine relationships. I have illuminated potentially important implications for service dog organisations. I tentatively propose a widening in perspective of the service dog concept: to be inclusive of suitably trained companion dogs and to also consider training small breeds of service dog to better meet the needs of more people. This proposal acknowledges that psychosocial benefits inherent in the roles dogs can play to impact QOL may be at least as important as functional assistance in enriching QOL in people with movement disorders.
APPENDICES
Appendix A: Ethics approval

Office of the Vice-Chancellor
Research Integrity Unit

UNIVERSITY OF AUCKLAND HUMAN PARTICIPANTS ETHICS COMMITTEE

20-Dec-2012

MEMORANDUM TO:

Assoc Prof Stephen Buetow
Gen.Practice& Primary Hlthcare

Re: Application for Ethics Approval (Our Ref. 8803)

The Committee considered your application for ethics approval for your project entitled
Dogs in support of people with movement disorders: A feasibility study.

Ethics approval was given for a period of three years.

The expiry date for this approval is 20-Dec-2015.

If the project changes significantly, you are required to submit a new application to UAHPEC for further consideration.

In order that an up-to-date record can be maintained, you are requested to notify UAHPEC once your project is completed.

The Chair and the members of UAHPEC would be happy to discuss general matters relating to ethics approvals if you wish to do so. Contact should be made through the UAHPEC Ethics Administrators at humanethics@auckland.ac.nz in the first instance.

All communication with the UAHPEC regarding this application should include this reference number: 8803.

(This is a computer generated letter. No signature required.)

UAHPEC Administrators
University of Auckland Human Participants Ethics Committee
Appendix B: Advertisement for companion dog participants

‘Dogs in support of people with movement disorders’
Auckland based research participants required

Do you live with a movement disorder AND have a dog
OR are about to get a dog?

You are eligible to take part if you:

- live in the greater Auckland area
- have been diagnosed with a movement disorder (e.g. cerebral palsy, multiple sclerosis, muscular dystrophy, Parkinson’s disease, stroke) by a doctor
- have a dog OR are about to get a dog

If you are interested in participating or have further questions about the study, contact:
Helen Spence E: h.spence@auckland.ac.nz | W: 09 923 7969 | M: 027 427 1932

APPROVED BY THE UNIVERSITY OF AUCKLAND HUMAN PARTICIPANTS ETHICS COMMITTEE ON 20 DECEMBER 2012 FOR (3) YEARS: REFERENCE NUMBER 8803
Appendix C: Participant information sheet

PARTICIPANT INFORMATION SHEET

Research Title: Dogs in support of people with movement disorders

Principal investigator/supervisor: Associate Professor Stephen Buetow
Email: s.buetow@auckland.ac.nz
Phone: 64 9 923 6241

Co-supervisor: Associate Professor Judith Littleton
Email: j.littleton@auckland.ac.nz
Phone 64 9 923 8574

Student researcher: Helen Spence, PhD candidate
Email: h.spence@auckland.ac.nz
Phone: 64 9 923 7969

Introduction

Research over the past 30 years suggests that dog ownership benefits human health and well-being. This study will follow two groups of people living with movement disorders over 12 months: one group partnered with service dogs (Mobility Dogs) and a second group living with companion (pet) dogs. Little is known about whether companion dogs and service dogs can improve quality of life of people living with movement disorders and, if so, how.

Invitation

You are invited to participate in this study if you have a movement disorder and (1) have been approved to receive a Mobility Dog, (2) are partnered with a Mobility Dog, (3) are about to acquire a companion dog or (4) live with a companion dog. Please read this information sheet before deciding whether you would like to participate. You may contact the researcher directly if you require more information. If you wish to volunteer, please complete the attached consent form (with your approval, someone else may write your responses for you).

What happens in the study?

In total the study involves 3 interviews, 6 months apart, over 12 months. All interviews will be conducted by the student researcher. Interviews will be held at a convenient time for you. Interviews will be audio-recorded and last up to approximately an hour. Even if you agree to being recorded, you may choose to have the recorder turned off at any time. The first interview will be in your own home. The second interview will either be in your own home or out in the community. The student researcher will join you in a regular activity with your dog – maybe a walk, outing to a cafe, or perhaps watching TV at home. Following the second interview you will be given a disposable camera (unless you have a device you would prefer to use) to take photos of “my life with a movement disorder and a dog”. The photos will not include people other than yourself. These photos will be the focus of the third interview. You will also be asked to complete a short quality of life questionnaire in the first and third interviews. The student researcher may note observations of you and/or your dog during the interviews.

With your permission the student researcher may also access information you share with The Mobility Assistance Dogs Trust. All interviews will be analysed to identify how Mobility Dogs and companion dogs contribute to the quality of life of people living with movement disorders.
What are the discomforts and risks?
Some participants may tire during the interview. You are free to take a rest or to stop the interview at any time without having to give a reason.

What are the benefits?
Understanding how companion dogs and Mobility Dogs enhance the lives of people with movement disorders may result in the training of more Mobility Dogs to assist people living with movement disorders in New Zealand. It may also support programmes to assist people with movement disorders to own or care for a dog in their own home, or support the introduction of dogs into care homes.

Confidentiality
The information provided in the interviews is confidential. The student researcher will protect your privacy and confidentiality. Only the student researcher (and in the case of Mobility Dogs participants the Mobility Assistance Dogs Trust) will know who the participants are, and this information will be kept physically separate from the data collected. All information that is reported will be de-identified in publications and presentations. The student researcher will transcribe all recordings of the interviews. You will be offered the opportunity to edit a preliminary summary of the research findings. Computer files will be password protected. All interview materials will be locked in a filing cabinet and be accessible only to the student researcher and her supervisor for a period of 10 years after the study ends. All data will then be destroyed.

Costs of participation
The only anticipated cost of participating is your time. As a token of appreciation you will receive a $50 pet store gift voucher at the conclusion of the study.

What will happen to the results?
The results will primarily be used in the writing of the student researcher’s doctoral thesis. Upon completion this thesis will be lodged in the University of Auckland library. A report of the study will also be prepared for relevant movement disorder organisations and the Mobility Assistance Dogs Trust for distribution in their magazines and/or newsletters. This report will also be shared with organisations that have assisted with the funding of Mobility Dogs for this project. Publications may be prepared for possible publication in academic journals and conferences. There will be a delay between data collection and any publication of results. Participants can choose to receive any publications resulting from this study.

Withdrawal from the study
Participation is voluntary. If you agree to take part in the study, you are free to withdraw from it at any time, without having to give a reason. You may withdraw data up until one month following each interview. This will in no way affect the healthcare you receive, or follow-up support from the Mobility Assistance Dogs Trust if you have a Mobility Dog.

Participant concerns
Please feel free to contact the student researcher and/or supervisors (contact details on page one) if you have any questions about this study. If you wish to discuss any concerns about your participation in this study with Health and Disability Advocacy, free phone 0800 555 050.

The student researcher
Helen Spence is enrolled as a doctoral student at the University of Auckland. She is an ex-full-time employee of the Mobility Assistance Dog Trust presently employed on a part-time basis in communication, public relations and marketing roles. She is not involved in the training of Mobility Dogs or the application and placement processes.

Ethical approval
This study received ethical approval from the University of Auckland Human Participants Ethics Committee on 20 December 2012 for (3) years: reference number 8803.

For any queries regarding ethical concerns you may contact the Chair, The University of Auckland Human Ethics Committee, The University of Auckland, Office of the Vice Chancellor, Private Bag 92019, Auckland 1142. Telephone 09 373 7599 extn. 83711.
Appendix D: Participant consent form

Research Title: Dogs in support of people with movement disorders

Principal investigator/supervisor: Associate Professor Stephen Buetow

Co-supervisor: Associate Professor Judith Littleton

Student researcher: Helen Spence, PhD candidate

Participant’s name: ______________________________________________________________

I have read and I understand the Participant Information Sheet for people taking part in this study designed to explore the effects of companion dogs and service dogs (Mobility Dogs) on the quality of life of people living with movement disorders. I have had the opportunity to ask questions and I am satisfied with the answers I have been given.

I understand that taking part in this study is voluntary and that I may withdraw from the study at any time if I wish. This will not affect my continuing healthcare, or ongoing follow-up support received from the Mobility Assistance Dogs Trust.

I understand that I may withdraw data from the study up until one month after the interviews.

I understand that the researcher will protect my privacy and confidentiality.

I understand that the interview will be stopped if it should appear to be harmful.

I understand that the data will be stored securely and destroyed after 10 years using the confidential document destruction service at the University of Auckland.

I understand the compensation provisions for this study.

I have had time to consider whether to take part.

I know who to contact if I have any side effects to the study.

I know who to contact if I have any questions about the study.

I consent to my interviews being audio-recorded. YES/NO

I understand that any photos taken will not include people other than myself. YES/NO
I understand that if the student researcher decides to include particular photos in her thesis she will obtain written permission first.

YES/NO

I wish to receive a report of the findings.

YES/NO

**Mobility Dogs group only:**

I consent to the student researcher having access to my Mobility Dogs application form.

YES/NO

I consent to the student researcher having access to the progress reports I give to the Mobility Assistance Dogs Trust post-placement of the dog.

YES/NO

**Research Title: Dogs in support of people with movement disorders**

This study has been given ethical approval by the University of Auckland Human Participants Ethics Committee. This means that the Committee may check at any time that the study is following appropriate ethical procedures.

Signed: _____________________________  Date________________________

Printed Name: 

Address for results:

______________________________

**STATEMENT BY STUDENT RESEARCHER**

I, Helen Spence (PhD candidate), declare that this study is in the potential health interest of the group of people of which__________________ (name of participant) is a member and that participation in this study is not adverse to ____________________ (name of participant)'s interests.

Signed: _____________________________  Date________________________

Student researcher

APPROVED BY THE UNIVERSITY OF AUCKLAND HUMAN PARTICIPANTS ETHICS COMMITTEE ON 20 DECEMBER 2012 FOR (3) YEARS: REFERENCE NUMBER 8803
# Appendix E: Semi-structured interview guide

## Initial Interview

<table>
<thead>
<tr>
<th>Tell me about ...</th>
<th>Prompts</th>
</tr>
</thead>
</table>
| Your past/current experience with pets | - Number of past pets, if any  
- Types/breeds  
- Responsibility for everyday care of pets  
- Time spent with pets  
- Activities shared with pets  
- How did pets help you  
- Problems/concerns with pets  
- Experience of loss of pet  
- Reason/s for getting another pet |
| Your present or pending dog (if pending not all prompts relevant) | - Describe dog: breed, age, sex  
- How long lived with dog  
- Reason/s for acquiring dog  
- Typical day  
- Who is responsible for everyday care  
- Time spent with dog  
- Activities shared with dog  
- Take photos of dog  
- Buy presents for dog  
- How you feel about leaving dog  
- Advice you would give someone with a movement disorder looking to acquire a dog |
| Your movement disorder | - Onset and diagnosis  
- Experience of medication/other treatments/therapies  
- Other health conditions  
- Who provides healthcare/information  
- Who is important in your life  
- Hours of paid assistance  
- Lifestyle: activities/work/home  
- Lifestyle changes  
- Advice for someone recently diagnosed |
| How your dog has impacted your quality of life with (movement disorder) | - Physical benefits  
- Psychosocial benefits  
- Problems/concerns |
| How you see service (Mobility Dogs) as different from companion dogs | - Benefits and drawbacks |
| How you expect your life may be different when we next meet in 6 months time | |
# Appendix E continued

## Tell me about ...

| Your experience of living with (movement disorder) since we last met | - Changes in: symptoms, medication, other health condition/s, lifestyle: activities/work/home, hours of paid assistance |
| How your dog has impacted your quality of life with (movement disorder) since we last met | - Physical benefits, Psychosocial benefits, Problems/concerns |
| How you expect your life may be different when we next meet in 6 months time |

## Third interview + photovoice stimulus

| Tell me about ... | - Changes in: symptoms, medication, other health condition/s, lifestyle: activities/work/home, hours of paid assistance, Significant life events, Differences in life different compared with 6 months ago, Ways you see life different in a year’s time |
| How your dog has impacted your life with (movement disorder) since we last met | - Physical benefits, Psychosocial benefits, Problems/concerns |
| Tell me about the photos you took | - What do photos mean to you, How do photos represent living with a movement disorder and a dog |
| Comments about being part of this study |
WHOQOL-BREF
& DISABILITIES MODULE

A Measure of the Quality of Life of People with Disabilities

Field Trial Version

Prepared by the DIS-QOL Group

January 2008
ABOUT YOU

Before you begin, we would like to ask you to answer a few general questions about yourself. Please answer by putting a cross like this X in the box beside the correct answer OR write in the space provided.

Name: ………………………………………………………...and /or ID Number: ……………… (For office use only)

Gender

Male [ ]
Female [ ]

Age (in years)

Date of Birth [ ]
( dd / mm / yy)

Marital status: Select the one that best describes your current situation

Single [ ]
Separated [ ]
Married [ ]
Divorced [ ]
Living with Partner [ ]
Widowed [ ]

Home location: (name of village / town / city): ………………………………………… Post Code: …………………

Living circumstances & support: Select the one that best describes your situation

Living at home - no support required [ ]
Living at home with support from unpaid carers (e.g. partner, family, friends) [ ]
Living at home with support from paid carers [ ]
Living in community care / sheltered housing supported by staff [ ]
Living in a residential care home / nursing home [ ]
Living in a long-stay hospital [ ]
Other (please tell us what) …………………………………………………………………………………………… [ ]

Education: What is the highest level of education you received?

None at all [ ]
Special school [ ]
Primary school [ ]
Secondary school / High school [ ]
College / University [ ]
Other (please tell us what) …………………………………………………………………………………………… [ ]

Health status: Are you currently ill or in poor health?

Yes [ ]
No [ ]

If something is wrong with your health, what do you think it is? ……………………………………………………………… illness / problem

Disability status: Do you believe you have a disability?

Yes [ ]
No [ ]

If you believe you have a disability, what do you think it is? ………………………………………………………………………

How long have you had this disability? ………………………………………………………………………………………… (years / months)
How visible is this disability? (Do you feel other people see or notice this disability?)

Not at all ☐  A Little ☐  Moderately ☐  Mostly ☐  Totally ☐

How much does this disability affect your life?

Hardly at all ☐  Mildly ☐  Moderately ☐  Severely ☐  Profoundly ☐

**Occupation:** What is your *main* occupation /daytime activity?

- Paid employment
- Voluntary employment (unpaid)
- Unemployed, currently looking for work
- Education (full-time or part-time)
- Day hospital / Day centre
- Home-based (e.g. homemaker, household duties etc)
- Retired
- None
- Other *(please tell us what)*

**Income:** Compared to other people in your country, how would you rate your financial situation and possessions?

- Well above average
- Slightly above average
- Average
- Slightly below average
- Well below average

*Thank you for this information*

**INSTRUCTIONS**

This assessment asks how you feel about your quality of life, health or other areas of your life. It is just about you – you and your life.

Please keep in mind what is important to you; what makes you happy; your hopes and dreams, and your worries or concerns.

**Please answer all the questions.** If you are unsure about which answer to give to a question - if it is hard to pick an answer - *please choose the one* that seems nearest or most appropriate. This can often be the first thing that comes into your mind. Some questions include an example to help you think about your answer.

There are no right or wrong answers – just answer what is true for you. Please think about your life in the last two weeks.

For example, thinking about the last two weeks, a question might ask:
Do you get the kind of support from others that you need?  
For example, do you get the kind of help you need from other people?

<table>
<thead>
<tr>
<th></th>
<th>Not at all</th>
<th>A Little</th>
<th>Moderately</th>
<th>Mostly</th>
<th>Totally</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In this item, the question has an example. You should circle the number that best fits your opinion about the kind of support (or help) you got from others over the last two weeks. So you would circle the number 2 if the support (or help) you got met your needs a little, as follows:

Alternatively, you would circle number 1 if the support you got over the last two weeks did not meet your needs at all.

Please read each question, think about your feelings, and circle the number on the scale for each question that gives the best answer for you.

You may find it helpful to look at the ‘smiley faces’ that add a visual guide (a picture) to the number scales for some items. These are available printed on separate cards also.

If you would like some help to write your answers on the form, it is OK to ask someone to do this for you.

Please think about your life in the last two weeks:

The first two questions ask about your life and health overall.
The following questions ask about **how much** you have experienced certain things in the last two weeks.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Not at all</th>
<th>A little</th>
<th>A moderate amount</th>
<th>Very much</th>
<th>An extreme amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>To what extent do you feel that (physical) pain prevents you from doing what you need to do?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>How much do you need any medical treatment to function in your daily life?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>How much do you enjoy life?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>To what extent do you feel your life to be meaningful?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Not at all</th>
<th>A little</th>
<th>A moderate amount</th>
<th>Very much</th>
<th>Extremely</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>How well are you able to concentrate?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8</td>
<td>How safe do you feel in your daily life?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9</td>
<td>How healthy is your physical environment?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

The following questions ask about **how completely** you experienced or were able to do certain things in the last two weeks.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Not at all</th>
<th>A Little</th>
<th>Moderately</th>
<th>Mostly</th>
<th>Completely</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Do you have enough energy for everyday life?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11</td>
<td>Are you able to accept your bodily appearance?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Question</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>---</td>
<td>--------------------------------------------------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>12</td>
<td>Have you enough money to meet your needs?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>How available to you is the information that you need in your day-to-day life?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>To what extent do you have the opportunity for leisure activities?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Very poor</th>
<th>Poor</th>
<th>Neither poor nor good</th>
<th>Good</th>
<th>Very good</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>How well are you able to get around?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

The following questions ask you to say how **good or satisfied** you have felt about various aspects of your life over the last two weeks.

<table>
<thead>
<tr>
<th></th>
<th>Question</th>
<th>Very dissatisfied</th>
<th>Dissatisfied</th>
<th>Neither satisfied nor dissatisfied</th>
<th>Satisfied</th>
<th>Very satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>How satisfied are you with your sleep?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>17</td>
<td>How satisfied are you with your ability to perform your daily living activities?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>18</td>
<td>How satisfied are you with your capacity for work?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>19</td>
<td>How satisfied are you with yourself?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>20</td>
<td>How satisfied are you with your personal relationships?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Question</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>---</td>
<td>--------------------------------------------------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>21</td>
<td>How satisfied are you with your sex life?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>How satisfied are you with the support you get from your friends?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>How satisfied are you with the conditions of your living place?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>How satisfied are you with your access to health services?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>How satisfied are you with your transport?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The following question refers to **how often** you have felt or experienced certain things in the last two weeks.

<table>
<thead>
<tr>
<th></th>
<th>Question</th>
<th>Never</th>
<th>Seldom</th>
<th>Quite often</th>
<th>Very often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>26</td>
<td>How often do you have negative feelings such as blue mood, despair, anxiety, depression?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
DISABILITIES MODULE

The next question asks about your disability overall.

<table>
<thead>
<tr>
<th>27G</th>
<th>Does your disability have a negative (bad) effect on your day-to-day life?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

The following questions ask about how you have felt about certain things, how much certain things have applied to you, and how satisfied you have been about various parts of your life over the last two weeks.

<table>
<thead>
<tr>
<th>28</th>
<th>Do you feel that some people treat you unfairly?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>29</th>
<th>Do you need someone to stand up for you when you have problems?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>30</th>
<th>Do you worry about what might happen to you in the future?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

*For example, thinking about not being able to look after yourself, or being a burden to others in the future.*

<table>
<thead>
<tr>
<th>31</th>
<th>Do you feel in control of your life?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

*For example, do you feel in charge of your life?*

<table>
<thead>
<tr>
<th>32</th>
<th>Do you make your own choices about your day-to-day life?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

*For example, where to go, what to do, what to eat.*
<table>
<thead>
<tr>
<th></th>
<th>Question</th>
<th>Not at all</th>
<th>A Little</th>
<th>Moderately</th>
<th>Mostly</th>
<th>Totally</th>
</tr>
</thead>
<tbody>
<tr>
<td>33</td>
<td>Do you get to make the big decisions in your life?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><em>For example, like deciding where to live, or who to live with, how to spend your money.</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>Are you satisfied with your ability to communicate with other people?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><em>For example, how you say things or get your point across, the way you understand others, by words or signs.</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>Do you feel that other people accept you?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>36</td>
<td>Do you feel that other people respect you?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><em>For example, do you feel that others value you as a person and listen to what you have to say?</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>Are you satisfied with your chances to be involved in social activities?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><em>For example, meeting friends, going out for a meal, going to a party etc.</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>Are you satisfied with your chances to be involved in local activities?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><em>For example, being part of what is happening in your local area or neighbourhood.</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>Do you feel that your dreams, hopes and wishes will happen?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><em>For example, do you feel you will get the chance to do the things you want, or get the things you wish for, in your life?</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Do you have any comments about the questionnaire?

..........................................................................................................................................................
..........................................................................................................................................................
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THANK YOU FOR YOUR HELP
Appendix G: Permission to use WHOQOL-BREF & PD Module

Monday, 11 February, 2013

Dear Helen Spence,

Thank you for interest in using the WHOQOL-BREF and the Disabilities Module for your research on dogs in support of people with movement disorders. We agree to your proposed use of the WHOQOL-BREF with the Disabilities Module, on the conditions that it is only used under your professional supervision; that the forms are collected back from your respondents after they have been completed and used; and that the instrument is not used for purposes outside your present project. These conditions are important to adhere to in order to protect the integrity of the instrument.

The New Zealand WHOQOL Group has recently developed national items for the New Zealand version of the WHOQOL-BREF. Once you have finished this project and have published to your satisfaction we would appreciate a copy of the anonymous data but with biographical information so that we may use it in the continual updating of national norms.

If require any other information, please do not hesitate to contact us. Our good wishes for the project and your team.

Yours sincerely,

Erin Hill
Secretary
New Zealand WHOQOL Group
Auckland University of Technology

phone: +64 9 921 9999 ext 7542
e-mail: erin.hill@aut.ac.nz
Appendix H: ‘Living with my dog’ in photos

‘Living with my dog’ in photos

Please use the camera provided to take photos which illustrate
‘living with my dog’

Notes:

- For all indoor photos, please use the flash.
- You need to be at least one metre away from your subject when you take a photo.
- You may ask someone else to take photos of you with your dog.
- No one apart from yourself and your dog may be photographed.
- We will talk about your photos when we next meet.
- You will be provided with a CD of all your photos.
- If any of the photos are used in the final thesis, I will seek your prior permission.
- When you have finished the film, please return in the self-addressed postage paid packet provided by [date].
- You will NOT be assessed on your photographic ability, but hopefully there will be a few good shots!
- Any problems contact me h.spence@auckland.ac.nz or 027 427 1932

Thank you
REFERENCES


Davidoff, F. (2014). Improvement interventions are social treatments, not pills. *Annals of Internal Medicine, 161*(7), 526-527.


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