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# **Living with companion animals after stroke: experiences of older people in community and primary care nursing**

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## **Abstract**

Older people often have companion animals, and the significance of the animals in people's lives should be considered by nurses, particularly in relation to older people's health, which can be affected by diseases. The incidence of stroke increases with age and disabilities as a result of stroke are common. This study aimed to explore older people's experiences of living with companion animals after stroke, and their life situation with the animals to the physical, psychological, and social aspects of recovery after stroke. The study was performed using individual interviews approximately 2 years after stroke with 17 participants (10 women and 7 men), aged 62–88 years. An overarching theme arising from the content analysis was contribution to a meaningful life. This theme was generated from four categories: motivation for physical and psychosocial recovery after stroke, someone to care for who cares for you, animals as family members, and providers of safety and protection. The main conclusion was that companion animals are experienced as physical and psychosocial contributors to recovery and a meaningful life after stroke.

**Keywords:** companion animal, elderly, older people, pet, recovery, stroke

In recent decades there has been increased interest in the relationship between companion animals and human health. This issue has been raised particularly with respect to older people, since it is common for the elderly to have companion animals (pets).

### **International studies**

Several studies have shown that companion animals have a measurable effect on older people's general health. A study of 884 participants (23% aged  $\geq 65$  years) reported that frequent dog-walking may have health benefits for older adults through increased physical activity and a heightened sense of community (Toohey et al, 2013). Another study, involving 1091 participants (aged 65–95 years), demonstrated that dog-walkers had more frequent physical activity and higher total functional ability than participants without dogs (Gretebeck et al, 2013). In a study involving twelve focus groups with a total of 86 participants it was found that although dogs are the most common companion animals, cats, birds, and various other animals were also facilitators of social interaction and a sense of community (Wood LJ, et al, 2007). From a British interview study it was concluded that older people's relationships with their companion animals can improve a person's emotional and physical wellbeing, and this needs to be considered as part of individual care planning (McColgan and Schofield, 2007).

An interview study in Germany explored twelve older persons' experiences of daily life with their companion animals. The main purpose was to expand home care nurses' knowledge of how pets could contribute to the daily lives of older people, and how the loss or sickness of a companion animal could affect the older person's life situation (Graf, 1999). The analysis of the interviews resulted in the following recommendations for nursing practice:

- To regard the ownership of a companion animal as a support in maintaining functional abilities

- To accept the animal as part of the ‘family’ and to integrate it into the encounter with the person needing nursing care
- To encourage the person to plan for the future of the animal
- To support the person mourning the loss of a companion animal.

From another interview study of 23 dog-owners above 70 years of age (5 male and 18 female) it was reported that a dog would notice if its owner was unwell and would give its owner purpose and structure in daily life. The owners experienced that dogs could be social facilitators, and they associated their dogs with memories of deceased family members. It was pointed out that, for a person who loves a pet, the animal is a friend and a loyal companion (Scheibeck et al, 2011). A literature review of the association between pet ownership and human health confirmed that companion animals can positively affect human health and enhance their owners’ quality of life. Over 90% of pet owners regarded their animals as valued family members and one of the key conclusions was that companion animals may be particularly valuable for older people recovering from illness. This review also confirmed that the death of an animal could cause great distress to the owner (McNicholas et al, 2005).

## **Health support**

There is evidence that companion animals can support the health in relation to various diseases that are common among older people. From a literature review it was concluded that pet ownership was associated with reduced cardiovascular disease risk factors (Levine et al, 2013). A one-year study comparing two groups (regular dog-walking [n=29] vs. no dog-walking [n=30]) found that dogs may help to maintain physical activity among older persons with cardiovascular disease and promote their cardiac capacity (Ruzic et al, 2011). Pet attachment support has also been reported to be more important in coping with depressed mood and loneliness than human social support from a cross-sectional study of 159 pet-

owning older women. The study was performed by means of participants' grading on scales (Krause-Parello, 2012).

## **Aims of study**

Cardiovascular and cerebrovascular diseases are two of the most common diseases among older people and may cause health problems such as depression (Hare et al, 2014), cognitive dysfunction (Appelros and Andersson, 2006), fatigue (Appelros, 2006), and severe disability (Adamson et al, 2004). Every year approximately 30,000 persons have a stroke in Sweden, and approximately 80% are 65 years or older at stroke onset (Norrving B, 2013). Disabilities affecting daily life and social attitudes regarding stroke disability influences the individual's development of a post-stroke identity (Anderson and Whitfield, 2013). A pilot study led to the suggestion that dog ownership could be useful in helping persons with hemiparesis after stroke regain gait ability (Rondeau et al, 2010). Depression is common after stroke, affecting quality of life (Jönsson et al, 2005) and could be alleviated by pets, as reported from a study of depression (Krause-Parello, 2012). Stroke affects people individually since the dysfunctions are related to the location of the brain injury. However, no in-depth studies based on self-report could be found regarding possible contributions of different types of pets for older persons affected by stroke. The aim of this study was therefore to explore older people's experiences of living with their companion animals after stroke and their life situation with the animals in relation to physical, psychological, and social aspects in the recovery after stroke.

## **Method**

This is a qualitative descriptive study based on individual single interviews with older people approximately two years after they had a stroke. The study is based on a naturalistic paradigm

under the assumption that human activity is not context free and that reality is a social construct, i.e. no phenomena can be understood isolated from time and context (Lincoln and Guba, 1985).

## **Sample**

In a follow-up study one year after stroke at the Department of Neurology, Skåne University Hospital, Malmö (Jönsson et al, 2014), a question whether the participants had a companion animal was included in the questionnaire. Those who had companion animals were asked if they were willing to be contacted by telephone regarding an interview study concerning the experiences of daily life after stroke in relation to their companion animals. The participants considered to be eligible were those who fulfilled the following criteria:

- had a companion animal
- were retired
- were living in their own homes
- were found to be able to communicate and reply to questions.

A total of 17 out of 46 persons who fulfilled the criteria agreed to participate: 10 women and 7 men with a median age of 71 years (range 62–88 years). Appointments for interviews were made consecutively, starting with persons born in the 1920s, then the 1930s, and finally the 1940s. All participants had their stroke approximately two years before the interview. It has been reported that several people were still depressive, even as long as 16 months after stroke, although many had recovered from depression in the time since the previous follow-up (Jönsson et al., 2005). Therefore we concluded that the interview study should not be performed until approximately two years post-stroke.

## **Health status**

Health status differed among the participants, with different levels of disability and consequently different mobility device needs. One person used a cane, two used crutches, five used rollators (wheeled walkers), and one person used a rollator, and for longer trips a wheelchair. The other eight did not use any mobility devices. Nine participants had dogs, seven had cats, and one had cage birds. None of the animals was trained to assist its owner with any practical everyday activities, all were companions. Five participants lived alone with their companion animals, while the other twelve lived with a spouse or a cohabitant who was also involved in caring for the animal.

## **Interviews**

Participants were permitted to choose whether to come to the outpatient clinic at the Department of Neurology for an interview, or to be visited at home. Two participants chose the outpatient clinic, 14 chose their own homes, and one requested a telephone interview. The interviews lasted approximately 45 minutes. The interviewer (the first-named author) invited the participants to tell their own stories about their experiences (Kvale and Brinkmann, 2009). A semi-structured interview guide was used by the interviewer when asking complementary questions, if any clarifications were needed (Figure. 1).

The interview started with background information, such as specifying the type of animal and whether the participant alone or any other family member was involved in the care of the animal. After that, the participant was invited to tell his/her personal story about the animal's role in daily life after stroke. If necessary, the interviewer added complementary questions about differences before and after the stroke, including both physical and psychosocial aspects, and in particular whether the animal had contributed in any way, and if so how, to the recovery after stroke. A total of 15 participants agreed to the interviews being recorded. In the



case of the other two participants, the interviewer took copious notes during the interview and afterwards read these notes to the participant, who could then make any changes or additions thought necessary. The recorded interviews were transcribed verbatim.

**Figure 1. Semi-structured interview guide**

**Main open question**

Can you tell me about the animal's role in your daily life after stroke?

**Examples of complementary questions**

- How is it now compared to before stroke?
- How do you communicate with your animal?

## **Analysis**

The transcribed interviews and two sets of notes were subjected to content analysis to explore the meaning of the narratives and to find patterns (Graneheim and Lundman, 2004; Schreier, 2012). The analysis addressed both the manifest and latent levels. The manifest content included clear and obvious descriptions, while the latent analysis interpreted the content at a deeper and more abstract level. The analysis was therefore performed in several steps (Graneheim and Lundman, 2004).

In the first step, the text was read several times to obtain an overall understanding of the content. In the next step, meaning units were identified in line with the purpose of the study. Words and sentences that were interrelated and together expressed coherent content were defined as meaning units. In the third step, the meaning units were condensed, keeping close to the text. In the fourth step the interpretation of the underlying meaning was expressed in terms of codes. The condensed meaning units and codes were then discussed critically by the first-named and third-named authors. Finally, categories and an overarching theme were

developed as a result of discussion between all three authors regarding the content of the meaning units and codes.

## **Ethics**

The study was approved by the Regional Ethical Review Board, Lund (reg. no. 520/2007) (Jönsson et al, 2014). The interviewer (first-named author) informed those who had agreed to be contacted that participation in the study was completely voluntary and that absolute confidentiality was guaranteed.

## **Findings**

The overarching theme emerging from the analysis was contribution to a meaningful life. This theme was generated from the following four categories:

- Motivation for physical and psychosocial recovery after stroke
- Someone to care for who cares for you
- Animals as family members
- Providers of safety and protection.

### **Contribution to a meaningful life**

The underlying theme of the participants' narratives was that the animal contributed to a sense of meaning in their everyday lives. The animal diverted attention from the disease and contributed to more pleasant thoughts. The participants saw the animal as providing support when feeling depressed, and it gave them a reason to fight for recovery. The animal motivated them to handle daily activities; it made them feel that they had responsibilities that they wanted to take on. They felt that the animal needed to be cared for, as being a responsible pet owner meant facilitating the daily routines of the animal, and this gave them a meaningful

life. Having a dog also helped make them part of a social network by bringing them into contact with other people when out walking their dogs. The animal was seen as a valuable member of the family and could provide persons living alone with a sense of belonging to someone. If someone needs you, you are included in a context and this can provide a sense of coherence.

### ***Motivation for physical and psychosocial recovery after stroke***

Living with the effects of a stroke had not affected the relationship with the animal. The animal was perceived as being as important to the owner as it always had been. Despite any mental and/or physical changes in its owner resulting from the stroke, the animal was just as affectionate and faithful as ever. The animal saw the person as he/she really was, without regard to the changes, and this gave the person a sense of being truly appreciated. Some participants indicated that the animal meant even more to them after stroke, although it had always been important in their lives.

Everyday life had not become more difficult after stroke because of the animals, which were not perceived as obstacles in any way. One participant said that she had more time for her cat after having a stroke than before, and therefore they had become closer. Another participant said that the dog approached the owner closely more often after the stroke than before.

After discharge from the hospital, some participants found that they had no strength or energy when they returned home; they were tired and felt distant from everything at home, even the animal.

*I couldn't manage walking with him and when I came home... at first I felt that I didn't have much feeling for him because I wasn't... doing well. (Participant 7)*

However, the pleasure of having a companion animal returned after some weeks at home. The animal could play an important role by giving its owner a general feeling of well-being, for example by showing that it was happy every day now that its owner was home again or by simply being a companion for the person to communicate with.

*When I go out for a walk with the animal it diverts my thoughts very much... otherwise I think a lot about the things that happened when I had my stroke and I feel afraid that it will happen again. (Participant 11)*

Some participants indicated that the animal had motivated them to be physically active and that they greatly enjoyed walking the dog. In addition, cat owners spoke of how their cats would trot along near them when they went out, which was stimulating.

*She follows me just like a dog... We go to the end of the street where there are rocks. Then I sit down for a rest on one of the rocks and, surprisingly, ...once I found the cat sitting behind me. (Participant 13)*

Another participant pointed out that a companion animal can motivate you to struggle to overcome physical as well as psychological problems. Her experience was that other people without companion animals tended to be more isolated and did not talk when encountered — instead they remained silent and kept walking.

*The dog motivated me to start walking even though it was difficult and caused pain in my legs. Without the dog I would have been depressed — now I can go out and meet people in the neighbourhood. (Participant 17)*

One participant said that, even though he could not go out for a walk with the dog, the dog made him active at home:

*Of course we play with our dog. We can be standing at different ends of the hall and say to her, “Run to mum” ... and then “Run to dad” ... and she’ll run up and down the hall.*

*Since we have her, I move around, pat her and lift her... otherwise I'd remain sitting.*

(Participant 4)

### ***Someone to care for who cares for you***

The participants pointed out that the animal could show them warmer feelings than close friends.

*A dog gives you warmth and cares about you. A dog can feel when you're not feeling well... sitting there with you, looking with its beautiful eyes — and it makes you feel better.*

(Participant 7)

The participants also tried to interpret the animal's feelings, what it liked and what it was thinking. They said that the animal understood more than people might think and exhibited behaviour and feelings that only its owner could grasp and understand. The animal could miss its owner and walk around looking for the owner when he/she was not at home. For example, one participant reported a cat walking around looking for a recently deceased relative of the participant. The cat would often lie on the chair where the deceased person used to sit.

The participants who had cats talked to them and felt that the cats understood them and replied with a 'meow'. Some reported that animals only understand a few words, whereas other participants indicated that the animal could understand when something was different from how it used to be, and that a dog could understand the illness and life situation of the person who had a stroke better than humans could:

*We're amazed... how much she understands of what we say to her.... She understands what my wife says, what we're talking about... It's amazing.* (Participant 4)

Participants indicated that they could find solutions if they could no longer take care of the animal themselves. Usually there was a spouse or another relative who could walk the dog,

feed it, or take care of its other daily activities. One participant had a relative who helped her take care of her cage birds.

The owners felt that they were responsible for their animals, they saw it as important to nurture them, and accepted that caring for the animal took some time. Respecting the animal and its needs was considered important – after all, the animal would be there for the owner for its entire life.

The participants expressed concern for their animals, especially people who had outdoor cats roaming freely. Something could happen to the animals: they could get run over by a car, or come into contact with people who were unkind to them. Several participants stated that they would miss the animal if it died, as they still missed animals they used to have. One participant stated that she always wanted a new dog when one had passed away, but she felt worried that she would probably be unable to care for a new dog after the present one died. Another participant expressed her sense of responsibility for a recently deceased dog:

*Yes, because he was sick... after caring for him for more than a year... he died. So we spent a lot of time and money on him — it's a responsibility when you have a dog, after all.*

(Participant 16)

### ***Animals as family members***

The animals were seen as family members and the participants talked about their personalities and behaviour. They described their animals as cuddly, comforting, nice, noisy, charming, affectionate, almost like humans, and sensitive to voices. Cats were sometimes described as having predatory instincts, being independent and impossible to train. One dog was described as very social and absolutely not a watchdog; he wanted to be friends with everyone who came to visit them. Another dog was described as the child of the family.

The animals were regarded as family members by those who lived alone as well as those who lived with a spouse. Usually the animal wanted to be in the same room as its master/mistress. Both dogs and cats brought a sense of closeness, as the animal would approach its owner and wanted to be petted and cuddled. The animal could also have fun with family members, for example playing with a ball or hiding things and looking for them. The animals contributed very much to the well-being of their owners. Cats were attached to their owners as well as dogs, but at the same time they were more independent, setting the ground rules for being together. However, the participants' concern for the cats was the same as for the dogs, and the owners worried about losing an animal of any kind.

*The cat's affectionate; he recognizes me and my feelings by listening to my voice.... If the cat died I'd need to have another cat.* (Participant 10)

### ***Providers of safety and protection***

Dogs could also provide a feeling of security and safety, guarding the house when the family is not at home and barking if someone is approaching. When participants went out they felt safer with a big dog, eliciting respect from other people. One participant described how it would feel if the animal was not there anymore:

*Then I think we'd have a new dog, not only because it would mean losing a family member, but also because it gives a feeling of security.* (Participant 14)

Several participants said that they came into contact with other people in the neighbourhood thanks to their dogs:

*We actually came into contact with other dog owners, thanks to this little sweetie.*  
(Participant 16)

Another participant said that she felt protected by her cage birds:

*I was brought back to life by my cage birds chirping intensively to wake me up when I'd fainted and was lying on the floor. They got worried when I didn't reply and they chirped louder and louder to wake me up... and they woke me up. They could feel that something was wrong and they reacted.* (Participant 9)

## **Discussion**

The findings revealed that the participants experienced that their companion animals supported them in the recovery from a disease that could change their life situation. Being able to interact with the animal gave them a sense of healing after stroke. The ability to care for the animal despite disability gave rise to feelings of pride at remaining able to contribute to a good life for the animal. The finding that the participants experienced that the animals motivated them to fight for recovery could possibly contribute to their adaptation to the 'hidden dysfunctions' described in an interview study, particularly in relation to the category active life versus passive lives (Carlsson et al, 2004). The participants also indicated that if their animal died, they would need to have a new animal, i.e. they felt that they could not live without the support of a companion animal. The continuum of the relation with a companion animal could be interpreted as a contribution to a sense of coherence in terms of comprehensibility, manageability and meaningfulness (Lindström and Eriksson, 2006). This finding is important because it has been reported that depression is common after stroke (Jönsson et al, 2005), and five-year mortality among the oldest people with stroke is reportedly higher among those with depression (Hornsten et al., 2013).

### **Perceiving animals as family members**

Perceiving animals as family members was a category in this study, and was confirmed in a British study of older participants in ten focus groups who also described pets as family



members (Knight and Edwards, 2008). From the focus group discussions there emerged such themes as physical stimulation from dog-walking, psychosocial benefits from contact with dogs, and dogs being seen as providers of safety, security, and protection (Knight and Edwards, 2008). These results are in line with categories in our study, and are further confirmed by a longitudinal study of almost a thousand participants aged  $\geq 65$  years, who completed a telephone-administered questionnaire (Raina et al, 1999). Raina et al. (1999) concluded that companion animals helped maintain or enhance the physical health of older people and could also positively affect their psychological well-being. Since the study by Raina et al. was published 15 years ago, it is interesting to find that also a more recent study of 830 older adults, comparing pet owners with non-pet owners, confirmed that pet ownership may confer benefits for well-being, including attenuating feelings of loneliness (Stanley et al, 2014). A random survey of 339 adults in Australia (17% aged  $\geq 60$  years) showed that pet ownership provides opportunities for interactions between neighbours (Wood et al, 2005), which was also found in our study. The Australian study found that sense of community and social capital were significantly higher among pet owners ( $n = 200$ ) than non-pet owners ( $n = 139$ ).

### **Psychosocial experiences**

An important psychosocial experience reported was the animal's happiness at its master's/mistress's return after hospitalization; others reported the animal's ability to show affection and its adaptation to the owner's disabilities after stroke. The physical benefits were conferred not only by the animals' facilitation of outdoor walking, but also by the fact that the ability to move around at home was stimulated by playing with the animal and following its actions. Our findings demonstrate that the companion animals could contribute to the gait retraining as described in a pilot-study of only four participants (Rondeau et al, 2010).

## **Fear of losing companion animals**

Some participants expressed fear of losing the ability to keep a companion animal; either because the animal could die or because they would be unable to take care of a new pet if they lost the present one. This finding is in agreement with another study underlining the need for psychosocial support in case of loss of an animal (Graf, 1999). The conclusion was that certain important steps should be considered by the nurse when an old person is mourning the loss of a companion animal, particularly if the person is living alone. The following nursing interventions were specified:

- Showing understanding
- Assisting in finding individual strategies to handle the mourning and in finding outdoor activities to replace the dog walks.

One recently published study confirmed the need to support the older people living alone after a loss of a companion animal, and to help them find strategies to handle the new life situation. This was a cross-sectional study of 191 dog or cat owners who were assessed using several questionnaires (Krause-Parello and Gulick, 2013). The main conclusion was that nurses need to take an active role in developing a plan of care to assist older adults feeling lonely, which was well in accordance with the interview study by Graf (1999). The nursing interventions suggested from these studies are in line with the nurses' code of ethics established by the International Council of Nurses (ICN), i.e. to promote health, prevent illness, restore health, and alleviate suffering (ICN, 2012).

One person could not be included in this study because of her difficulty in expressing her thoughts and feelings after a severe stroke. However, her husband told the interviewer that his wife was still looking after their dog. She often asked whether the dog had been fed and showed that she cared about him, although she could not reach out for and caress him because

of her lack of balance. This confirms that even in the case of severely disabled persons, companion animals can positively contribute to daily life.

### **Study limitations and advantages**

It could be seen as a limitation of the study that the participants had different types of animals. However, an interesting aspect was the participants' explanations of certain differences between dogs and cats as companion animals, though both types of animals bolstered the wellbeing of their owners. Even the participant who was unable to take care of a dog or cat found a solution by keeping cage birds. All three types of companion animals contributed to a richer psychosocial environment, as pointed out in other studies (Graf, 1999; McColgan and Schofield, 2007). However, dogs contributed more to the training of physical abilities both indoor and outdoor, as described by the participants in the present study as well as other studies (Rondeau et al, 2010; Ruzic et al, 2011; Toohey et al, 2013;).

The fact that participants in the study were born in three different decades is a factor contributing to the diversity of the study group. Their health status differed accordingly in line with the normal process of aging, and not only in relation to various disabilities caused by stroke.

### **Future directions**

The study found that physical as well as psychosocial factors were important in recovery after stroke, an observation that has been confirmed in other studies (Jönsson et al, 2005; Baseman et al, 2010). This indicates that more longitudinal studies are required investigating the possibility that interacting with animals positively influences recovery after stroke.

## **Conclusion**

There were no obstacles to having a companion animal in daily life following a stroke. On the contrary, the animals were perceived as facilitators in recovery, since the companion animals contributed to both physical activity and psychosocial stimulation.

Walsh (2009) concluded that ‘bonds with companion animals may not be our whole lives, but they can make our lives whole’. This corresponds well with the results presented here, but it should also be added that research into the contribution of companion animals in recovery after stroke has been neglected. The study indicates that it is important for nurses in community and primary care to consider the role of companion animals in the physical and social activation after stroke, and to support people who are grieving the loss of a companion animal. Hopefully this study will contribute to the dissemination of this knowledge.

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## KEY POINTS

- Companion animals are important to older people after stroke
- Dogs and cats can motivate people to go out for a walk with the pet, even if their walking ability has been affected by a stroke. This can positively influence physical as well as psychosocial recovery by meeting other people outdoors.
- Companion animals' contribution to a meaningful life among older people after stroke should be considered by nurses in community and primary care and the pet owner may need support if the animal dies.